

# **Semi-Annual Sampling Report**

**Minute Man Cleaners  
89 Ocean Avenue,  
East Rockaway, Nassau County, New York 11518**

**Site # C130157**

**June 2018  
Sampling Event**

**July 2018**

***Prepared By:***

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Semi-Annual Sampling Report  
NYSDEC Site Number: C130157  
Minute Man Cleaners  
89 Ocean Avenue  
East Rockaway, Nassau County, New York 11518  
July 2018

## **CERTIFICATION**

I, J. Robert Holzmacher P.E. certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Semi-Annual Sampling Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Very Truly Yours,  
**J.R. Holzmacher P.E. LLC**

James Robert Holzmacher P.E.  
Name

66054  
NYS PE License Number

  
Signature

8/20/2018  
Date

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## **EXECUTIVE SUMMARY**

J.R. Holzmacher P.E. LLC (JRH) has prepared this Semi-Annual Sampling Report for the above referenced property. Activities under the Remedial Action Work Plan were conducted on behalf of Mr. Dennis Manley, the property and business owner, with the understanding that remediation is required to complete the Brownfield Cleanup Program agreement with the NYSDEC.

This Semi-Annual Sampling Report serves to document the remedial actions that took place at Minute Man Cleaners during the first half of the 2018 calendar year. Remedial actions included sampling of groundwater and soil gas produced by the soil vapor extraction system.

Two rounds of In-situ chemical oxidation (ISCO) treatment were completed on January 29<sup>th</sup> through February 9<sup>th</sup> and July 27<sup>th</sup> through July 31<sup>st</sup> of 2015. The September 9, 2015 sampling indicated reduced contaminant concentrations. Contaminant concentration increases were observed in some wells in the October 21, 2015, June 29, 2016 and December 28, 2016 laboratory results. The December 20, 2017 analysis indicated an increase in contaminant concentration for about seven of the wells since the June 15, 2017 sampling, with the rest decreasing. Analysis of the June 28, 2018 samples showed that contaminant concentrations decreased in eleven wells and increased in five wells since the December 2017 sampling event. Examination of the multi-year trend charts shows that PCE concentrations in most wells remain in a long term downtrend. The two exceptions to this are in MW-9 and MW-12.

Based on the above, JRH believes that further ISCO remediation without soil remediation will be unlikely to reduce contaminants to the desired levels. Furthermore, the current SVE system is removing residual concentrations of dry cleaning solvent from the unsaturated zone. JRH believes that this may be evidence of a contaminant source that cannot be remediated using ISCO because the ISCO reagents cannot contact the unsaturated zone contamination.

NYSDEC has not approved additional soil excavation which is not covered by the approved Remedial Action Work Plan and would be highly disruptive to the business operating at the site. JRH suggested that the owner and the Department consider augmenting the current SVE system with an additional soil vapor extraction well point that could be installed from the rear (east side) of the building and piped into the existing extraction system. Installation of air sparging points paired with additional SVE extraction wells has also been recommended as a more effective method to remove the residual solvents detected in the monitoring wells.

## **1.0 INTRODUCTION**

J.R. Holzmacher P.E. LLC (JRH) has prepared this Semi-Annual Sampling Report for the above referenced property. The Semi-Annual Sampling Report was conducted on behalf of Mr. Dennis Manley, the property and business owner, as required by the Site Management Plan approved by the NYSDEC in December 2015.

The current and intended use of the property is commercial, occupied by Minute Man Cleaners, an active dry cleaning facility. The property is located at 89 Ocean Avenue, East Rockaway, Nassau County, New York and is approximately 0.19 acres in size. The site is shown in Figure 1 and is occupied by a single-story building that has operated as a dry cleaner since 1982. The site is bordered by Atlantic Avenue to the north, Ocean Avenue to the west, Mill River to the east and a seafood restaurant to the south. Perchloroethylene (PCE), the contaminant of concern, was used in the dry cleaning process.

In 2005, an investigation by URS indicated a significant release of PCE to soil and groundwater from the dry cleaning machine. It was estimated that this release occurred from 1983 to 1987 due to seal leaks in a storage tank at the base of the machine.

Remedial work during previous years included removal of contaminated soil, installation of a soil vapor extraction/sub slab depressurization system (SVE/SSDS) and in-situ chemical oxidation (ISCO) treatments.

## **2.0 SUMMARY OF SAMPLING**

### **2.1 Sampling Field Activities**

Groundwater monitoring and effluent soil vapor sampling was completed on June 28, 2018 to assess the performance of the remedy implemented in July 2015. Groundwater samples were collected from thirteen on-site groundwater monitoring wells and three offsite groundwater monitoring wells and were analyzed for target compounds list volatile organic compounds (TCL VOCs). The samples were collected in accordance with procedures as described in Appendix I – Field Activities Plan in the Site Management Plan.

The effluent sample for the Soil Vapor Extraction/Sub-slab Depressurization System was collected from a sample collection port which was installed on the blower effluent pipe. The sample was collected using a one liter summa canister with a fifteen minute regulator.

Samples were placed in the appropriate laboratory-supplied glassware, put on ice, and picked up by courier and delivered to Alpha Analytical Laboratories, Long Island City, New York (NYSDOH ID #11148) for the following analysis with Category B deliverables:

Groundwater:

TCL VOCs (EPA Method 8260C, rev. 2006); MW-4D, and DB-1 were also analyzed for 1,4 Dioxane (EPA Method 8270D SIM).

Effluent Soil Vapor:

VOCs (EPA Method TO-15).

## **3.0 GROUNDWATER SAMPLING RESULTS**

Locations of groundwater monitoring wells are illustrated in Figure 1. The historical sample results for all of the monitoring wells are in the attached tables. Trends in PCE and TCE concentrations are illustrated in the graphs in Figures 2 to 17. The site flooded during Superstorm Sandy (October 2012), so interpretation of groundwater contaminant concentrations prior to that time may not be directly comparable to subsequent results.

### **3.1 On-Site Monitoring Wells**

The sampling of the on-site shallow and deep monitoring wells yielded results as shown in the attached tables. The June 28, 2018 analysis indicated a decrease in PCE contaminant concentration for 4 of the 7 shallow and water table monitoring wells and an increase in monitoring wells MW-3S, MW-9 and MW-12. Analysis for PCE in the deep wells showed a decrease in concentration for 4 wells with an increase in monitoring wells 4D and 5D. MTBE was detected in MW-5D, MW-5S, MW-14S and MW-14 WT as per prior sampling events.

Examination of the multi-year trend charts shows that PCE concentrations in most wells remain in a long term downtrend. The exceptions to this are in MW-5D, MW-9 and MW-12. Highlights of changes between the two most recent rounds of sampling include the following:

#### Shallow Monitoring Wells

Well	PCE	PCE	TCE	TCE	Other VOCs
	Dec 20,2017	June 28, 2018	Dec 20,2017	June 28, 2018	
MW-1S	280	260	9.8	11	
MW-2S	200	140	2.5	3.5	
MW-3S	160	180	2.8	3.6	
MW-4S	260	160	3.2	3.6	
MW-5S	190	180	18	18	Cis 1,2 DCE decreased from 11PPB to 6.4 PPB

\* All results in ppb

#### Deep Monitoring Wells

Well	PCE	PCE	TCE	TCE	Other VOCs
	Dec 20, 2017	June 28, 2018	Dec 20, 2017	June 28, 2018	
MW-1D	210	88	5.8	2.7	
MW-2D	200	68	3.8	3.0	
MW-3D	260	30	4.9	0.92	
MW-4D	77	81	1.7	1.6	
MW-5D	9.7	35	1.2	3.5	Methyl tert-butyl ether increased from 3 PPB to 9.3 PPB
DB-1	280	21	46	2.5	Methyl tert-butyl ether decreased from 20 PPB to ND

\* All results in ppb

#### Water Table Monitoring Wells

Well	PCE	PCE	TCE	TCE	Other VOCs
	Dec 20, 2017	June 28, 2018	Dec 20, 2017	June 28, 2018	
MW-9	11	18	0.72	0.97	
MW-12	16	77	0.49	1.2	

\* All results in ppb

### 3.2 Off-Site Monitoring Wells

The off-site monitoring well cluster is located north of the site and near an automobile service station. The June 28, 2018 analysis indicated a continued decreasing trend in contaminant concentration in the water table well and in the shallow well in comparison to the December 20, 2017 samples. The source of this contamination is not believed to be the Minute Man Cleaners property. Highlights of changes between the two most recent rounds of sampling include the following:

Well	PCE	PCE	TCE	TCE	Other VOCs
	Dec 20, 2017	June 28, 2018	Dec 20, 2017	June 28, 2018	
MW-14WT	60	31	1.2	0.82	
MW-14S	0.68	0.51	ND	ND	Methyl tert-butyl ether Increased from 4.4 PPB to 12 PPB
MW-14D	ND	ND	ND	ND	

### 4.0 EFFLUENT SOIL VAPOR SAMPLING RESULTS

The SMP requires collection of a yearly sample of the effluent soil vapor. Prior effluent samples were collected by inserting tubing into the SVE blower discharge pipe from the top of the pipe which required a ladder and climbing on top of the roof. A less hazardous collection point was constructed on the blower discharge pipe at a point approximately three feet above the blower. A brass stop-cock was installed into this collection point, at which disposable polyethylene tubing can be inserted to collect a sample. This sample result was compared to prior soil vapor analytical data.

Results of the effluent soil vapor sampling indicated a tetrachloroethene concentration of 726 ug/m<sup>3</sup>, above the NYSDOH guidelines of 30 ug/m<sup>3</sup>. Trichloroethene was detected with a concentration of 1.6 ug/m<sup>3</sup>, below the NYSDOH guidelines of 2 ug/m<sup>3</sup>. These results are less than half the concentrations observed during December 2017. Earlier results were reported in ppbv and were collected from the roof top location, possibly with greater dilution, so direct comparison with the more recent results is problematic.



## **5.0 CONCLUSIONS and RECOMMENDATIONS**

### **5.1 Conclusions**

- Analytical results over time in the attached tables show the two previous rounds of ISCO were temporarily effective in reducing the contaminant concentrations observed in the monitoring wells in post-treatment sampling and analyses. The June 2018 groundwater sampling event shows a decrease in the concentrations of tetrachloroethene in 11 of the 16 monitoring wells with increased concentrations in the other five. The concentrations of trichloroethene are generally stable at very low concentrations.
- The persistence of low concentrations of PCE and trace concentrations of TCE in groundwater suggests that there may be some remaining PCE in soil below the floor of the Minute Man Cleaners building. Wide temporal PCE and TCE fluctuations such as seen in MW-12 are likely due to changing tidal and seasonal groundwater elevations resulting in episodes of contaminant dissolution from the unsaturated zone.
- The contaminant increases observed during December 2017 in areas north of the presumed source area were largely reversed during the June 2018 sampling event. Methyl Tert-Butyl Ether (MTBE) was found in ground water samples from wells MW-5D, MW-5S, MW-14WT and MW-14S and this fuel additive is not associated with dry cleaning operations. The presence of MTBE as the predominant contaminant in MW-14S implicates the service station north of the site and PCE may also be used in automotive and machine shop parts cleaning. Based on groundwater flow, it is difficult to support northward PCE migration from Minuteman Cleaners to the offsite wells.

### **5.2 Recommendations**

There are two technical issues to be resolved before selecting further active remediation measures. The first is the mass of contamination adsorbed onto the soil matrix in the overall plume area. Secondly is the potential contaminant source area in soil below the dry cleaning machine remaining after excavation by Brookside Environmental, Inc. (2008-07-01.IRM). Based on the available data and the results of the two previous rounds of in-situ chemical oxidation, JRH recommends the following:

- Based on the slow downtrend in contaminant concentrations in the groundwater in most wells, we recommend that the next round of groundwater sampling be conducted in the fourth quarter of 2018. Analytical results from the next round of groundwater sampling will be compared to the June 28, 2018 results and will be discussed with NYSDEC.
- JRH does not recommend further in-situ chemical treatment by potassium permanganate or other remediation products as these will not likely achieve the Record of Decision (ROD) goals. JRH provided the available data to in-situ treatment vendors and did not

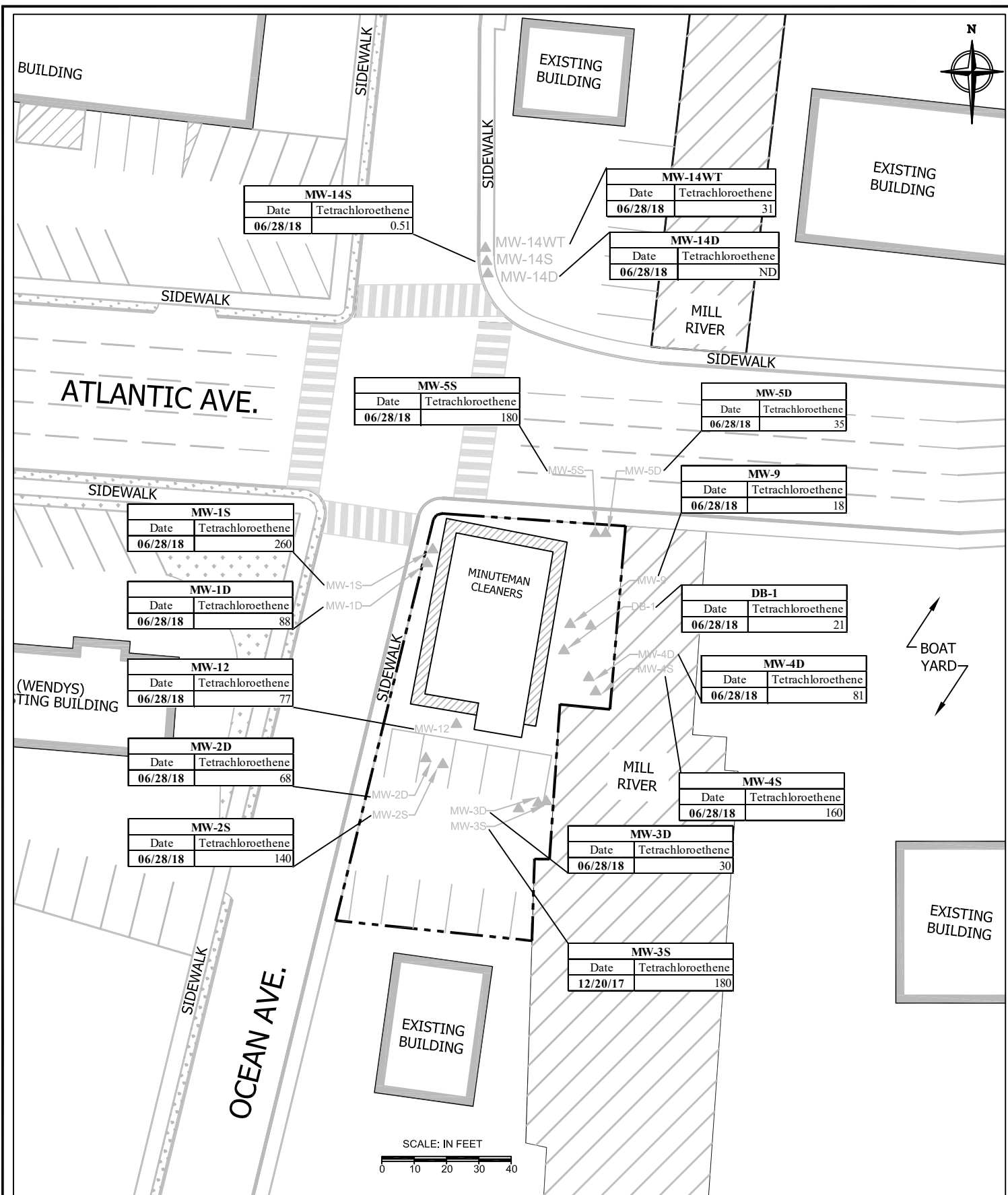
receive positive feedback with respect to future success. The nature of the contamination and the presence of PCE and its residual byproducts in soil above the water table puts much of the remaining contamination beyond the reach of in-situ oxidation methods.

- Additional remedial measures were discussed with NYSDEC during the first half of 2018 and a Corrective Action Plan was submitted for consideration on May 25, 2018. These measures included the use of air sparge (AS) points to introduce atmospheric oxygen into the aquifer. Air compressors will feed air to one new deep and five new shallow AS points in order to enhance the rate of contaminant removal and degradation in the aquifer.
- The new AS points will be matched with the addition of five new Soil Vapor Extraction (SVE) points to be located in the vadose zone above and in close proximity to the new AS points. This will result in the capture of any contaminants stripped out by the AS air discharges. The new SVE points will discharge air through vapor phase carbon filter drums.
- The existing SVE system can be improved by adding one more angle drilled extraction wells with intake screens located in the dry soil below the dry cleaning unit. The new soil vapor extraction point can be connected to the existing blower and may be more effective than the existing SVE points alone. We believe that reducing the mass of VOCs in the soil has the best chance of reducing the source of continuing groundwater contamination.
- Construction of the new AS and SVE points should not take a long time to complete once NYSDEC approval is granted and a contractor can be scheduled. It is possible that some or all of the AS and SVE points may be operational prior to the next round of groundwater sampling.

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## **Figures**

drawing location on the server P:\2013\ManID13-01 Minute Man Cleaners\Task 7 - Site Management Plan\CADD\Figure 5-8 14-11-14.dwg



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TITLE:

**GROUNDWATER ANALYTICAL  
RESULTS 06-28-2018**

SITE #C 130157  
89 OCEAN AVE  
EAST ROCKAWAY, NEW YORK 11518

DWN:

PLZ

SCALE:

1:40

DATE:

7-16-2018

PROJECT NO.:

ManID1601

CHKD:

AJS

APPD:

JRH

REV.:

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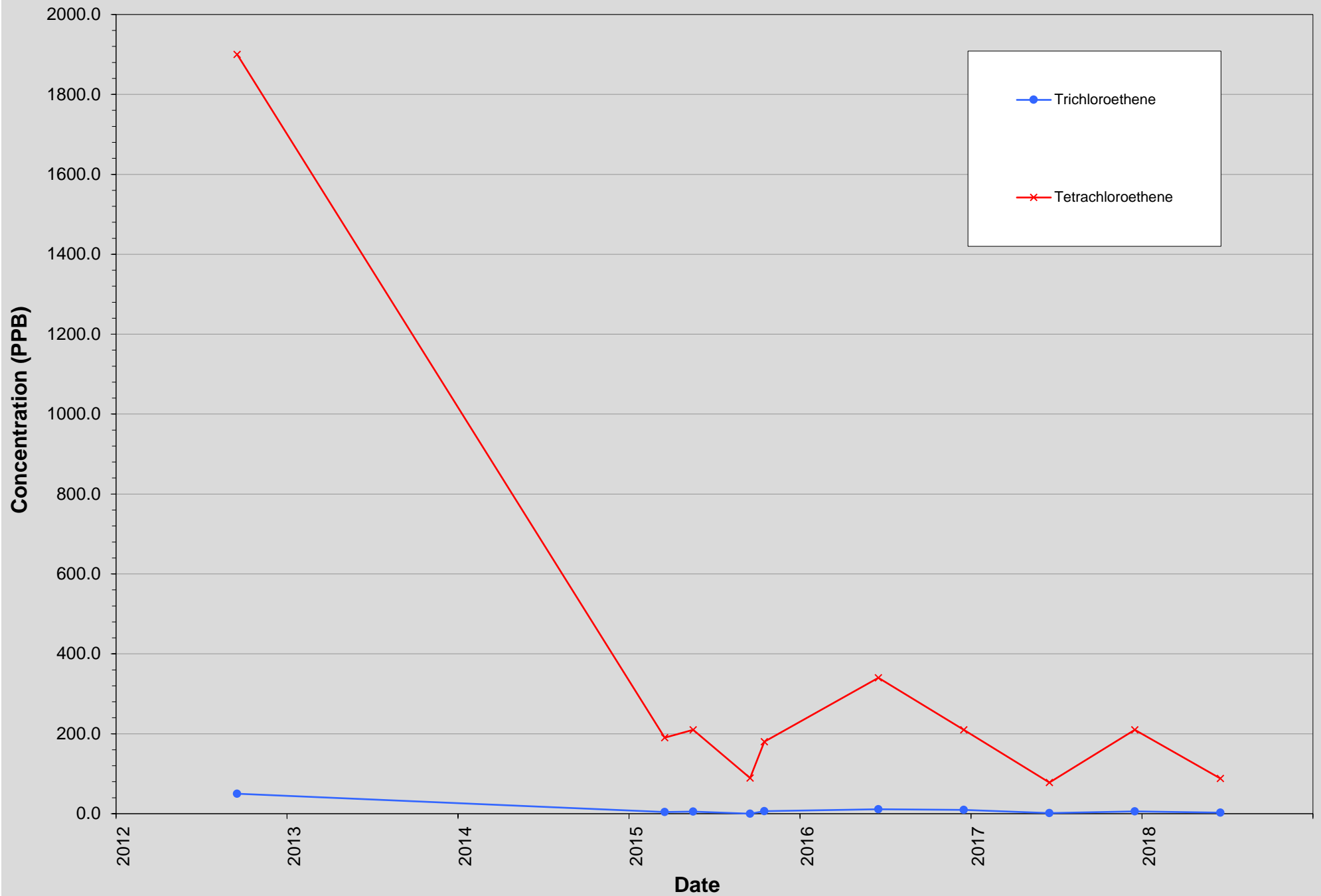
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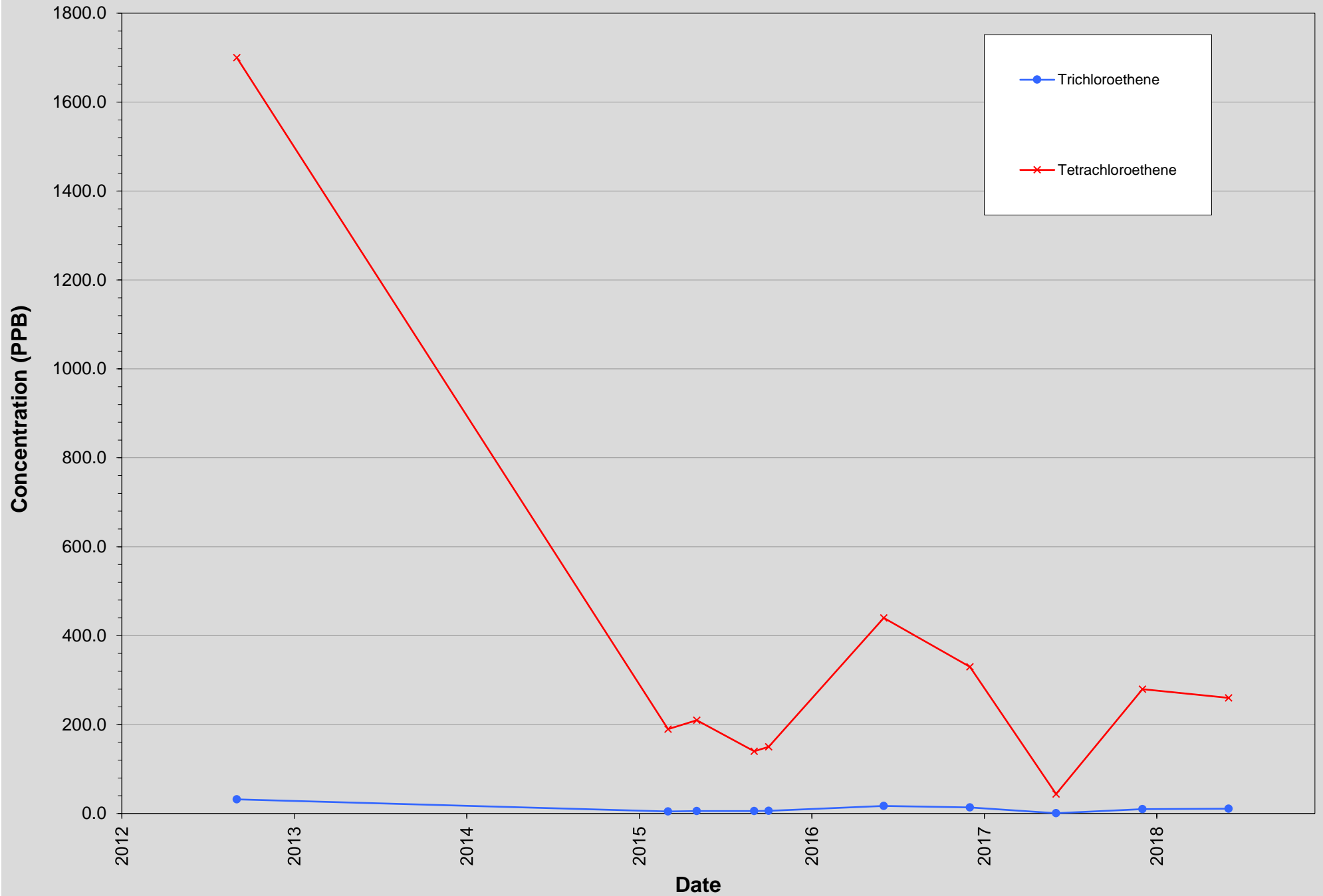
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1

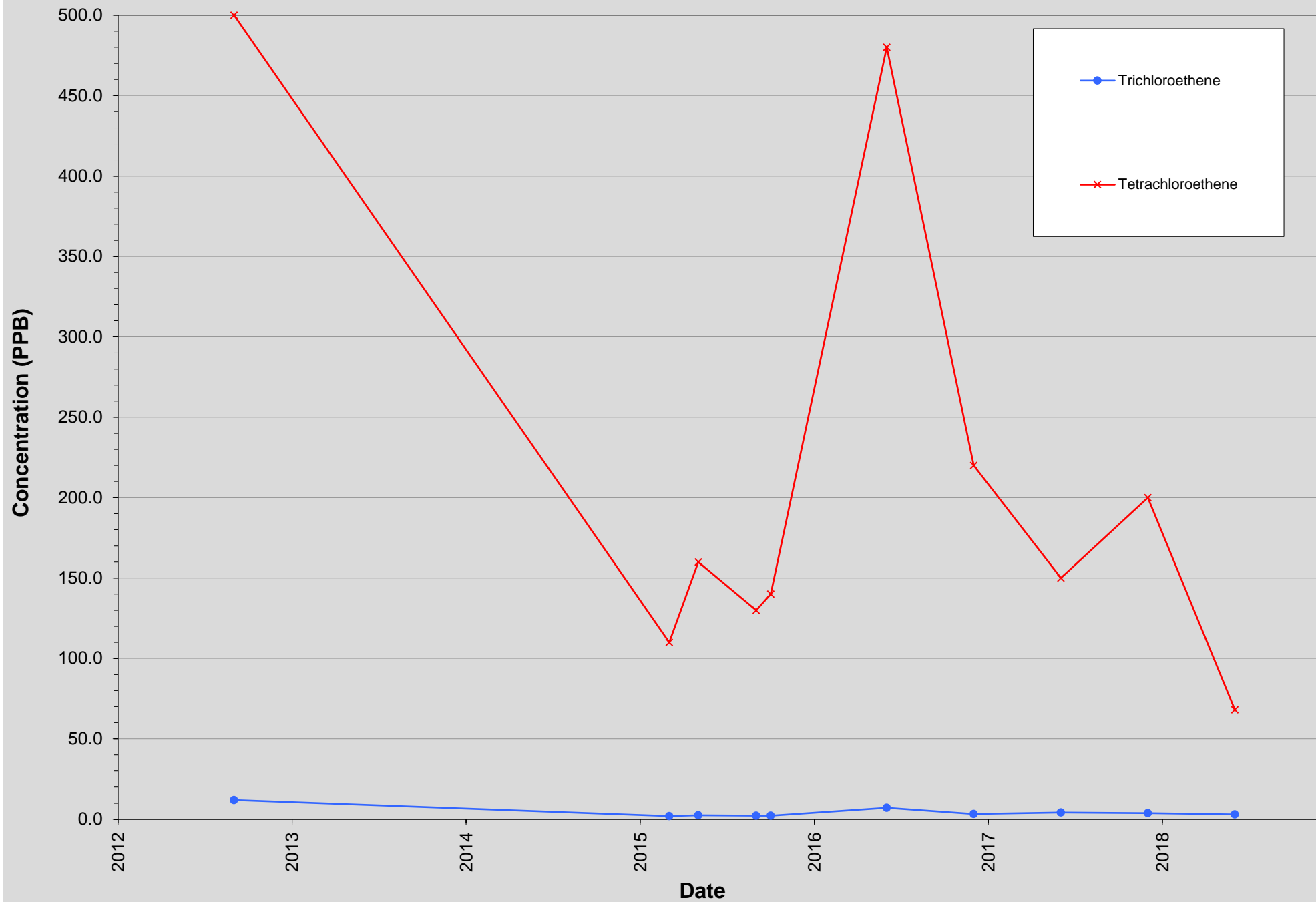
**Figure 2**  
**Trends Chart - MW-1D**



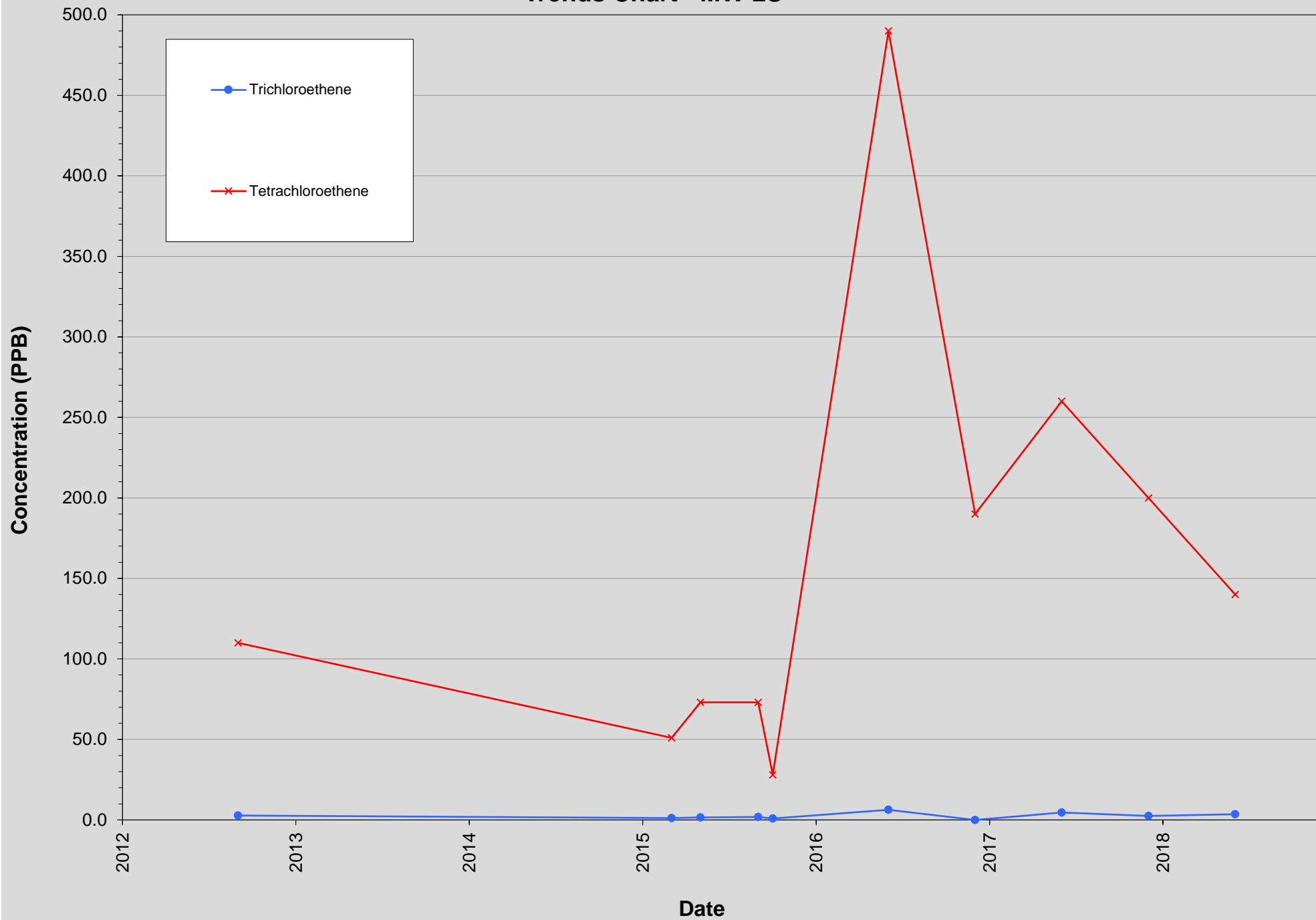
**Figure 3**  
**Trends Chart - MW-1S**



**Figure 4**  
**Trends Chart - MW-2D**

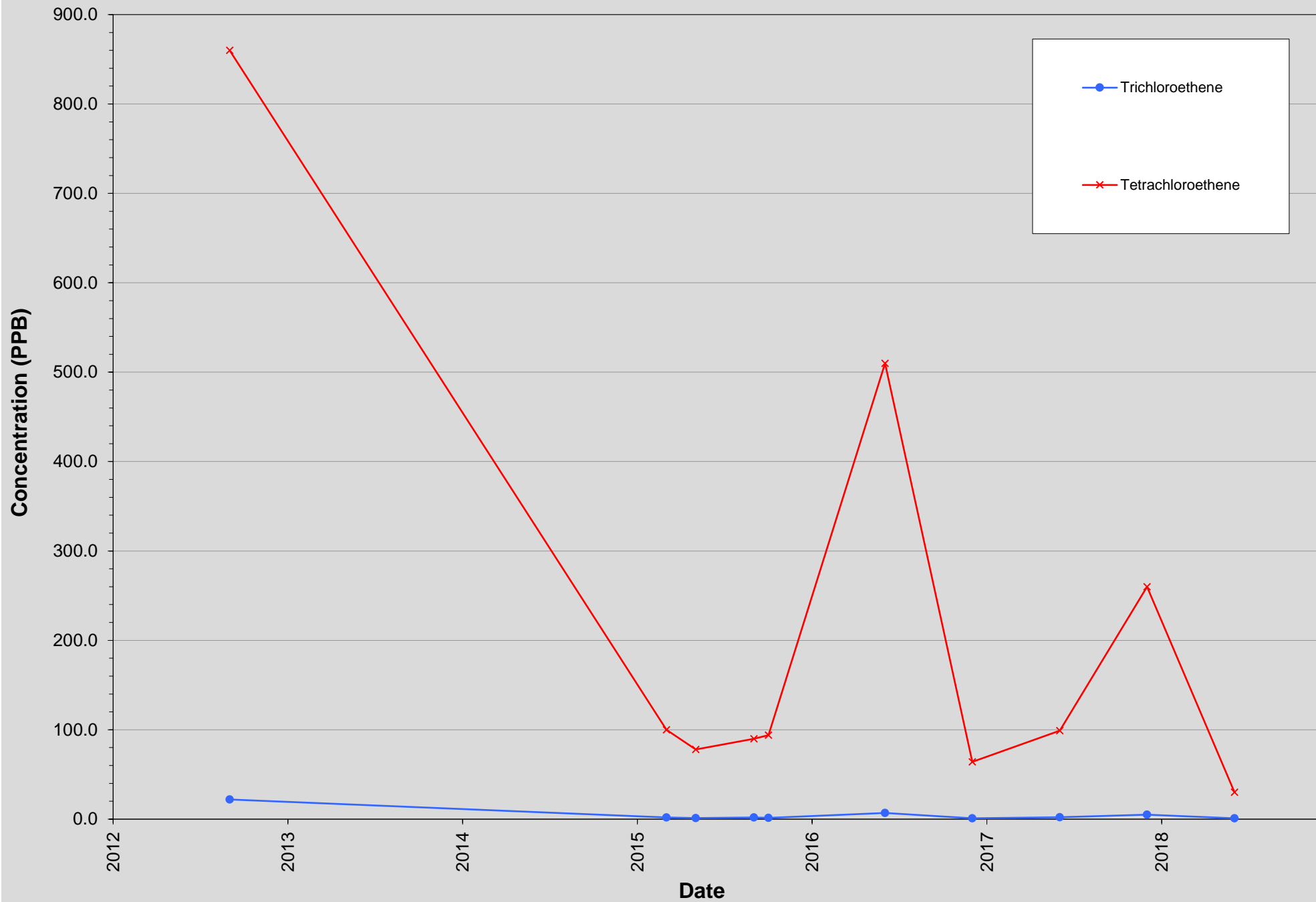


**Figure 5**  
**Trends Chart - MW-2S**

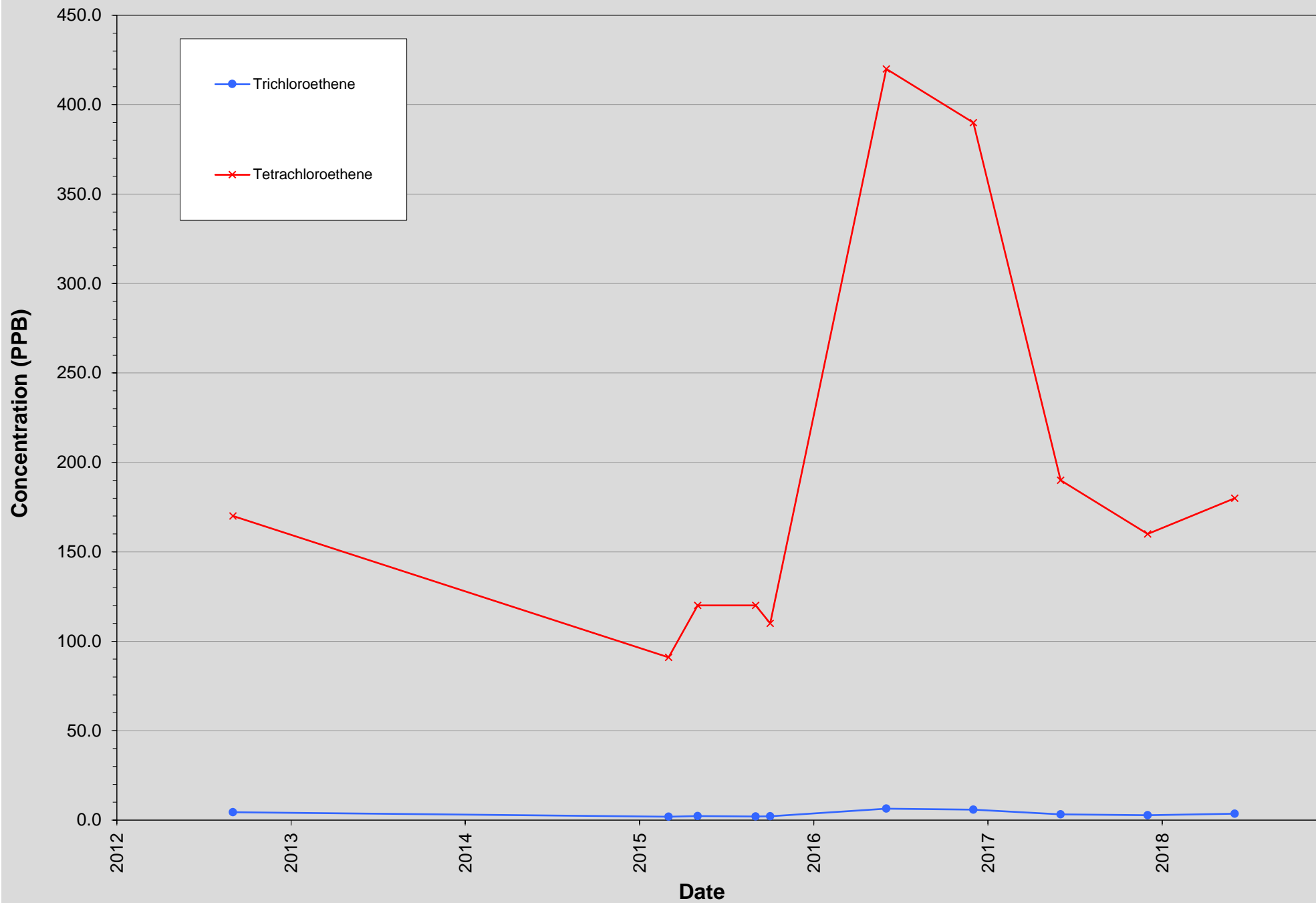




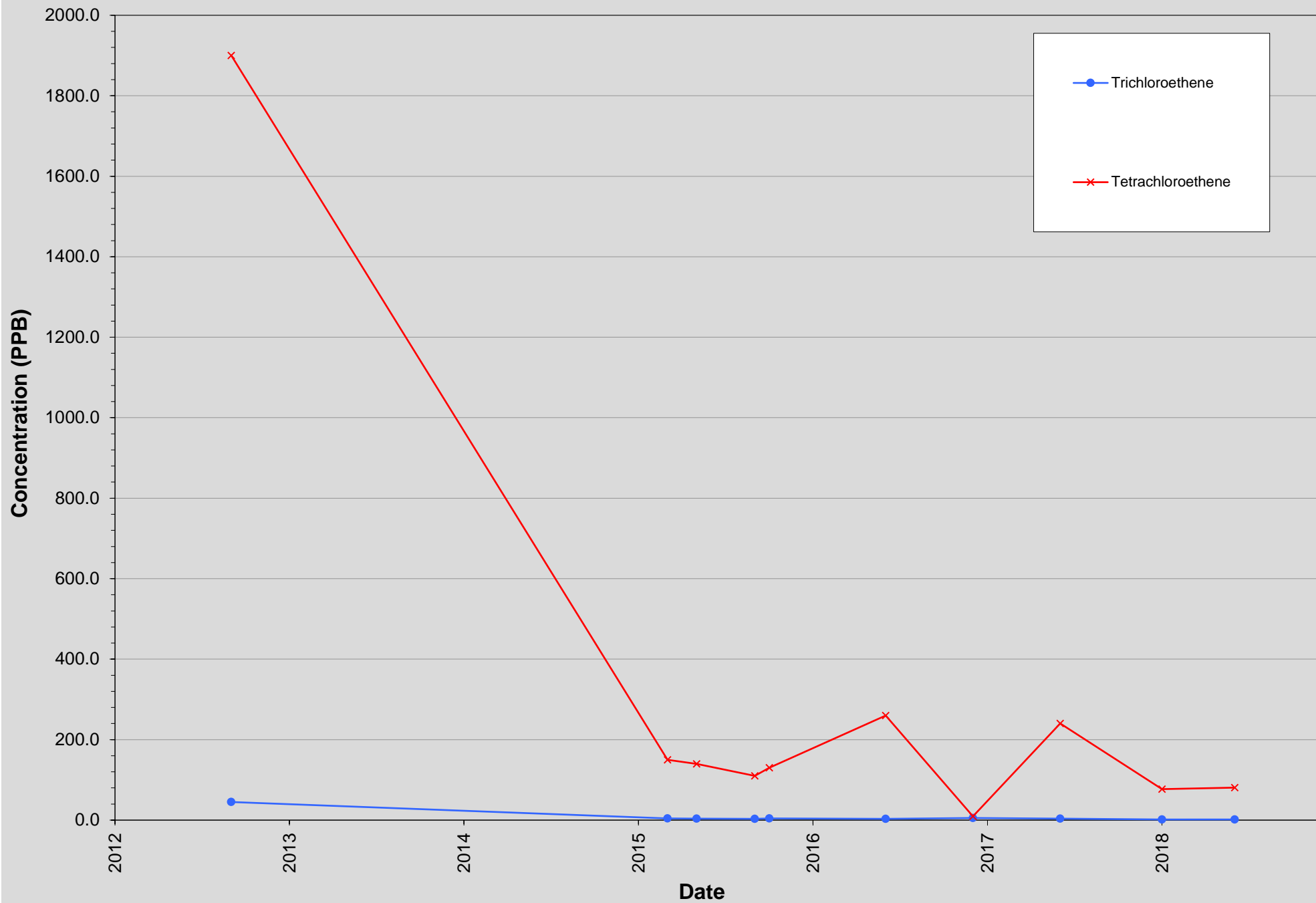
**Figure 6**  
**Trends Chart - MW-3D**



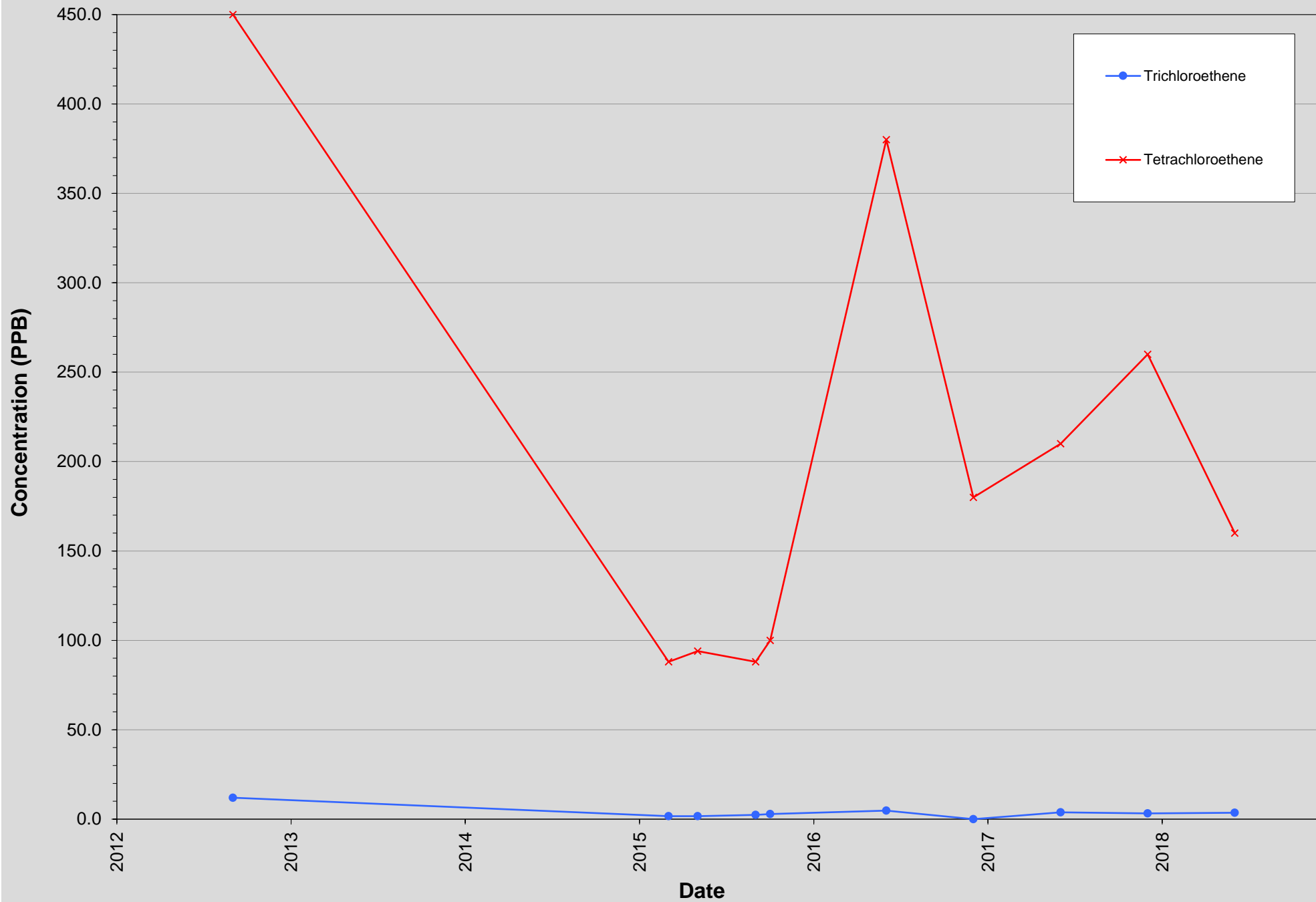
**Figure 7**  
**Trends Chart - MW-3S**



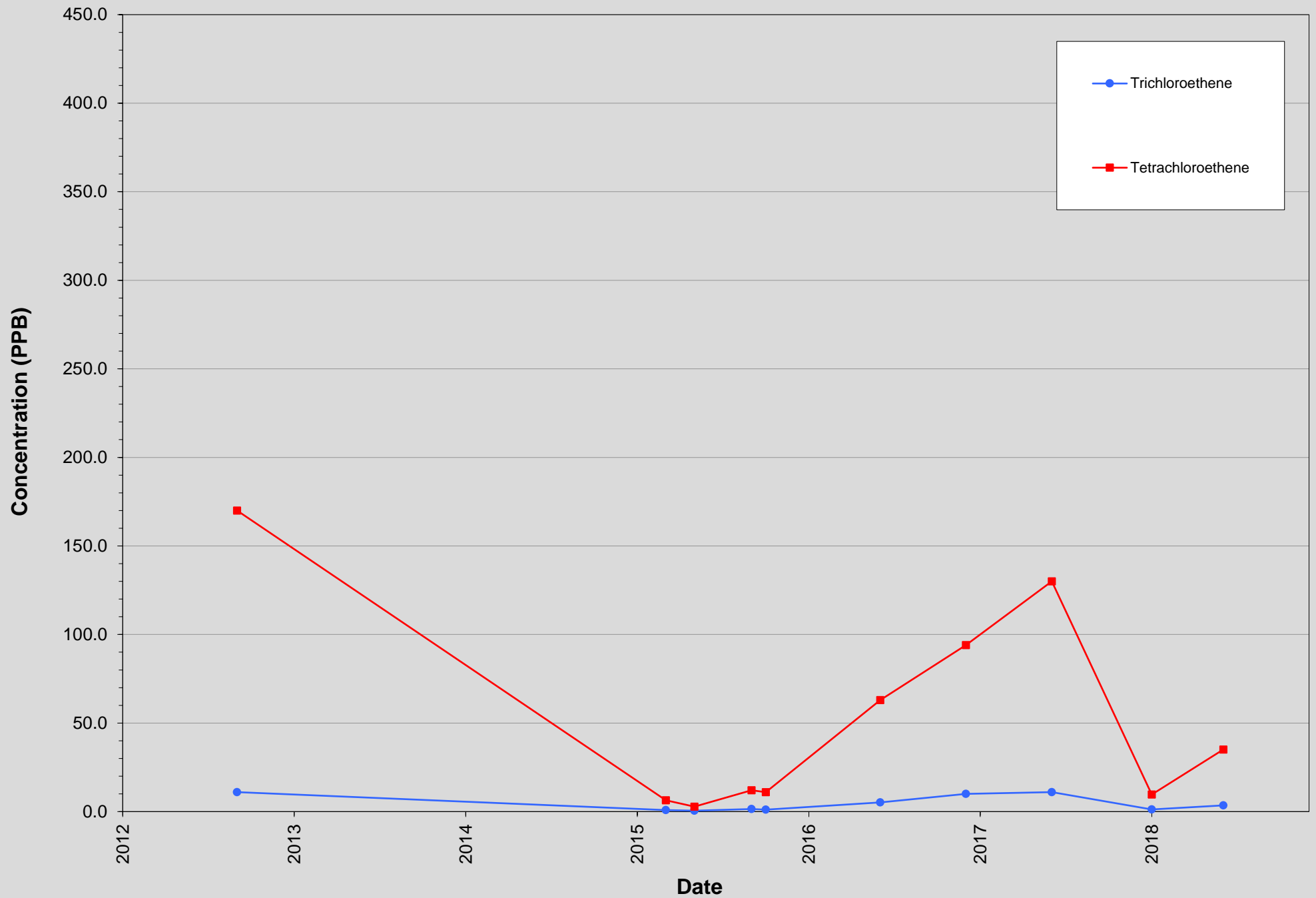
**Figure 8**  
**Trends Chart - MW-4D**



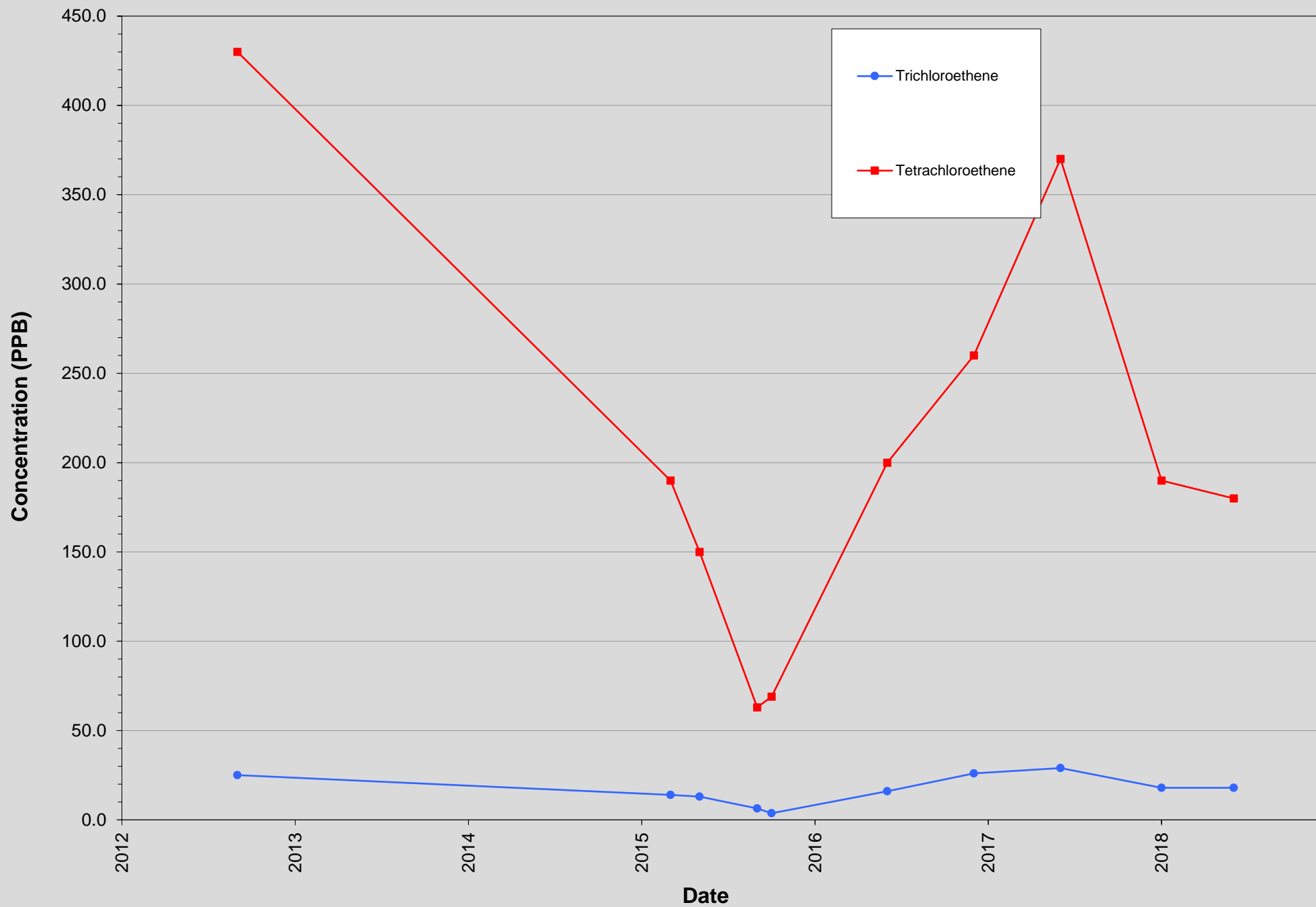
**Figure 9**  
**Trends Chart - MW-4S**



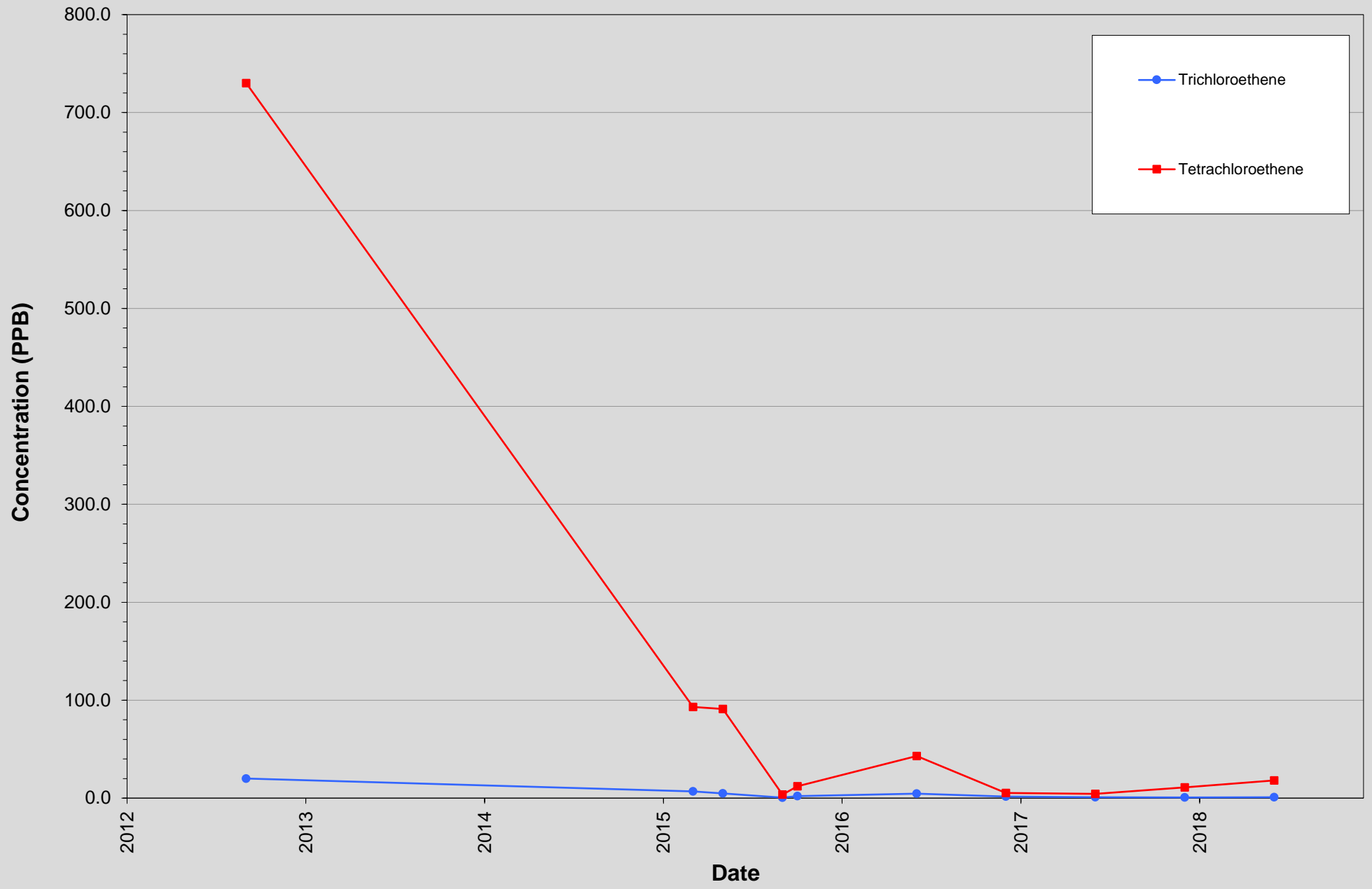
**Figure 10**  
**TCE Trends Chart - MW-5D**



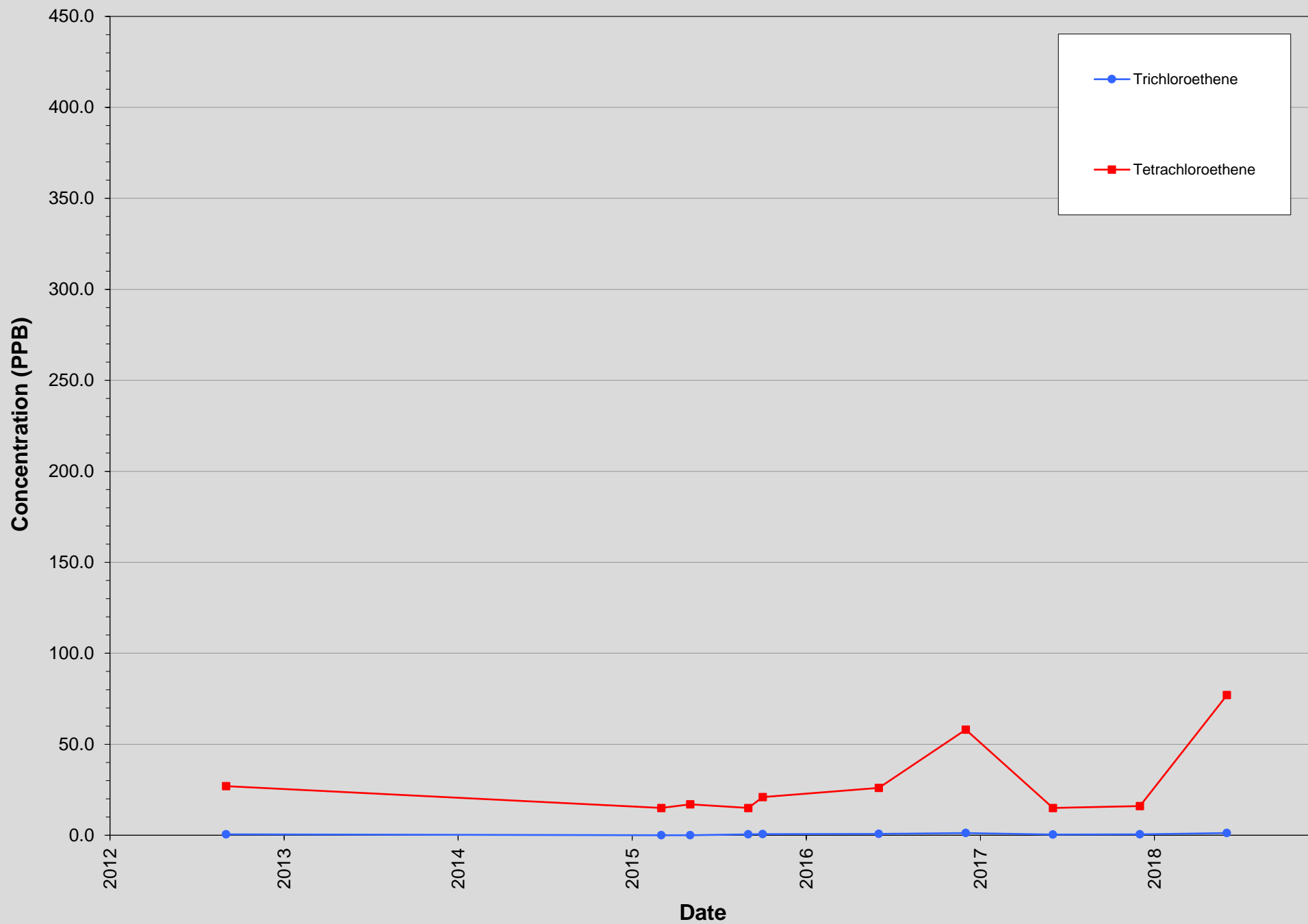
**Figure 11**  
**Trends Chart - MW-5S**



**Figure 12**  
**Trends Chart - MW-9**

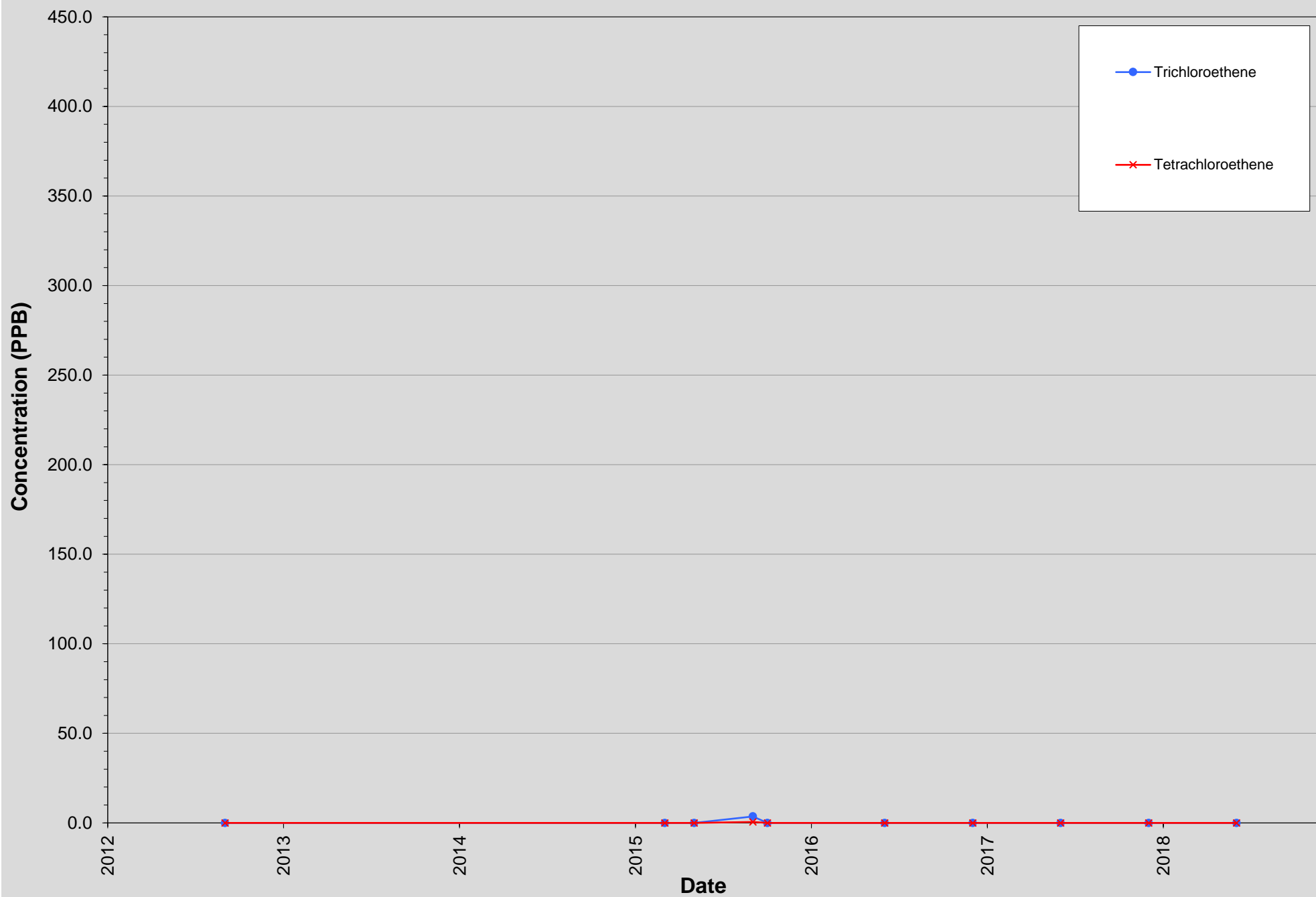


**Figure 13**  
**Trends Chart - MW-12**

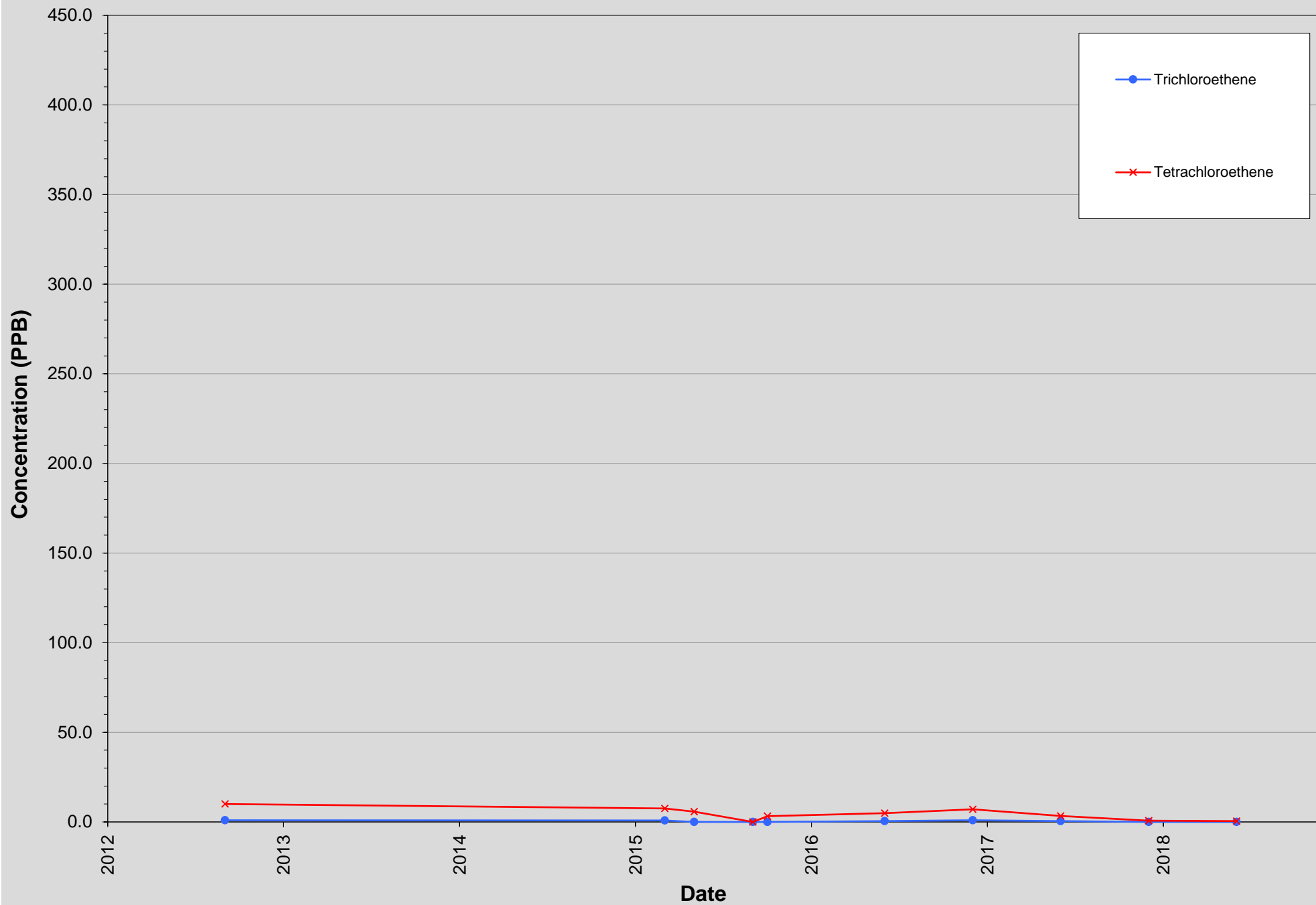




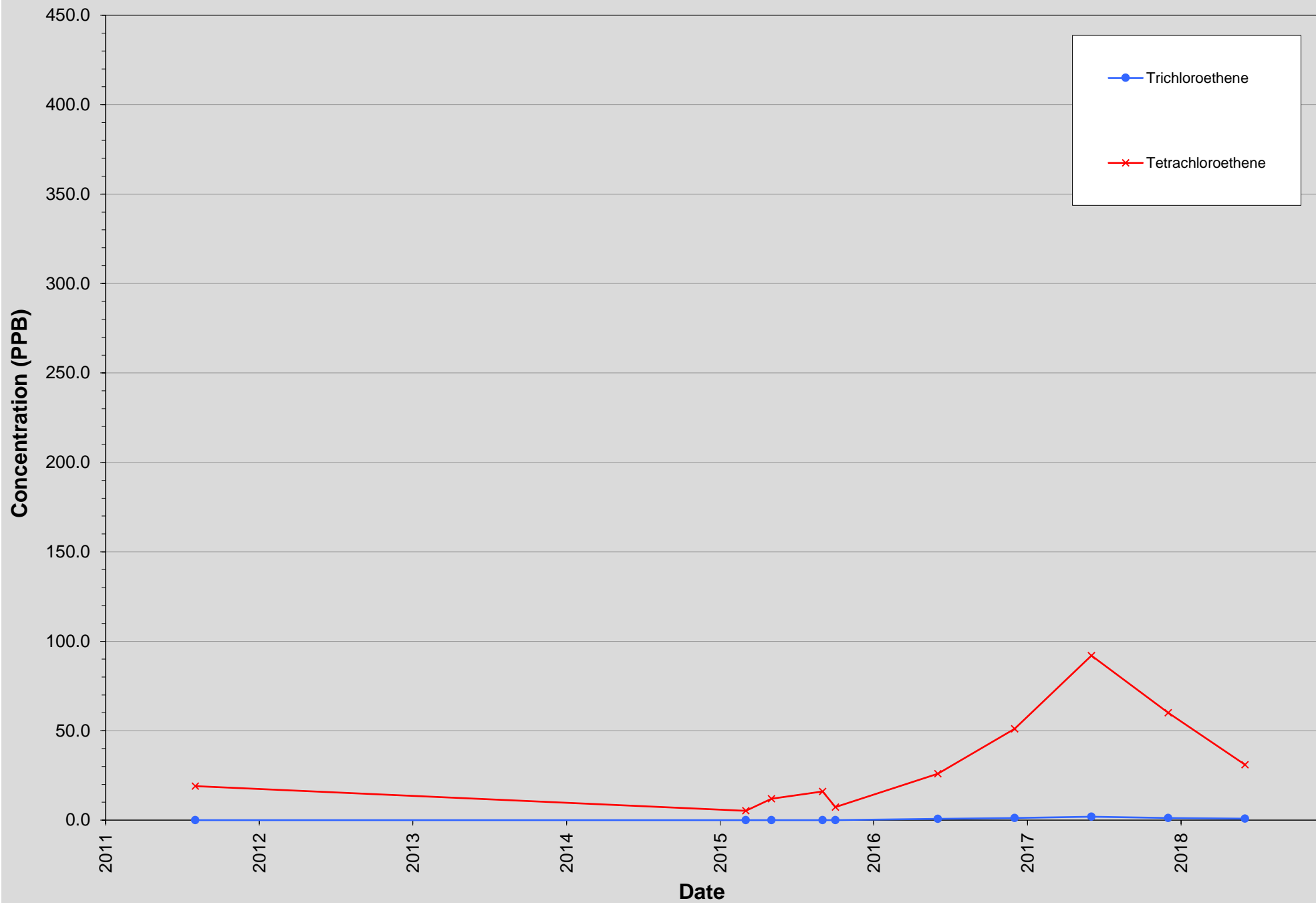
**Figure 14**  
**Trends Chart - MW-14D**



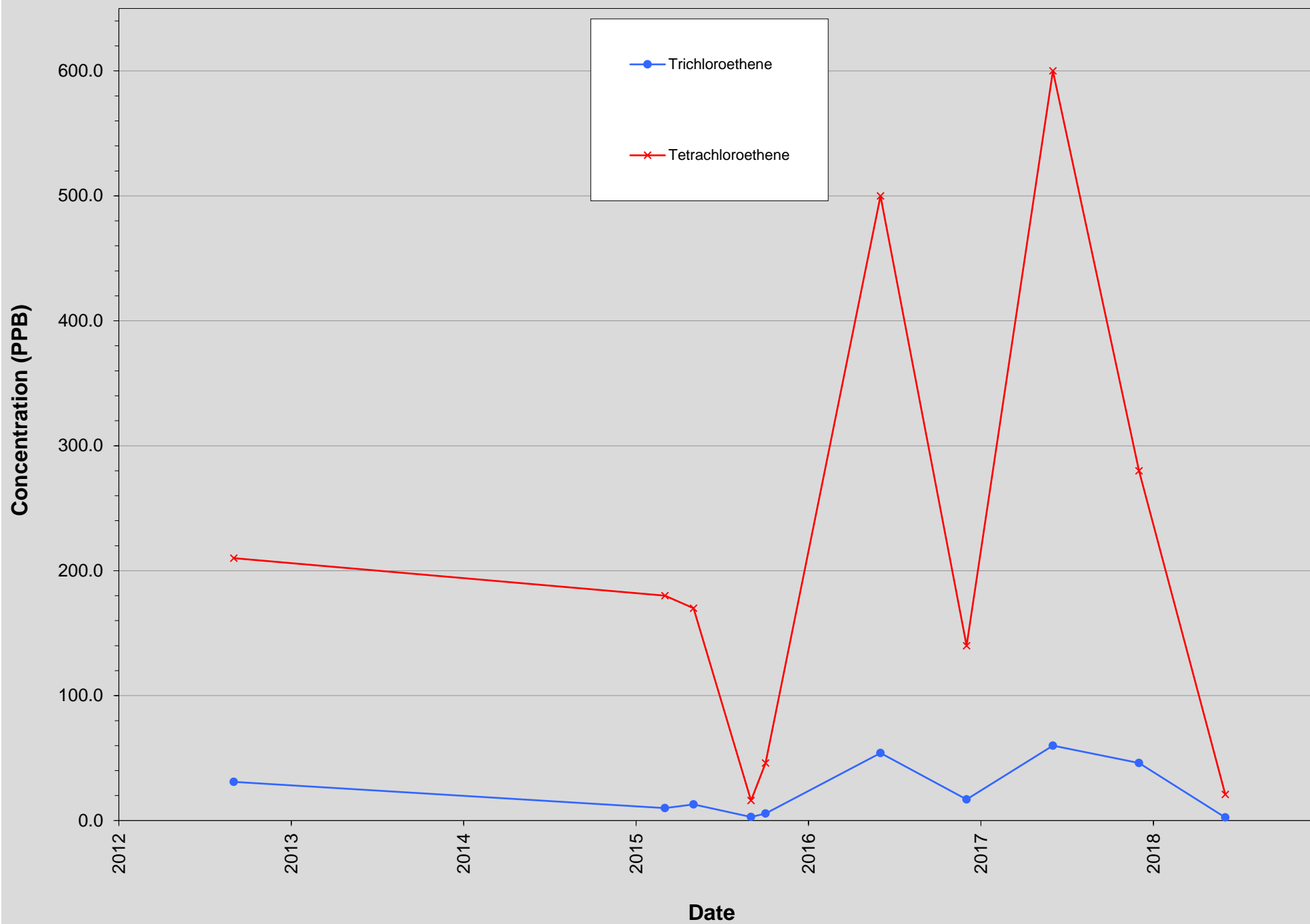
**Figure 15**  
**Trends Chart - MW-14S**



**Figure 16**  
**Trends Chart - MW-14WT**



**Figure 17**  
**Trends Chart - DB-1**



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## **Tables**

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1DDL
Screen Intervals		Groundwater	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'
Sampling Date:		Standards	6/28/2018	12/20/17	6/15/2017	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/2015	09/25/12	09/25/12
Dilution Factor													50
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.62J	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.7BJ	4.9	ND	2.0BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1D	MW-1DDL
Screen Intervals		Groundwater	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'	25-30'
Sampling Date:		Standards	6/28/2018	12/20/17	6/15/2017	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/2015	09/25/12	09/25/12
Dilution Factor													50
Analyte:	Units:												
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.45J	ND
cis-1,2-Dichloroethene	PPB	5	ND	1.7J	0.73 J	4.4 J	ND	2.5	ND	0.93J	1.0J	15	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	0.55J	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	0.76J	0.97J	ND	ND	2.6	1.5
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.7B	4.5	3.6B	5.8B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	88	210	78	210	340	180D	89	210D	190D	1900E	1900D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	2.7	5.8	1.3	9.5	11	6.1	ND	5.2	4.4	50	54D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	0.15J	0.30J	0.09 J	0.58 J	ND	ND	ND	ND	ND	1.4	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1SDL
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/2015	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	2.0BJ	1.2BJ	1.4J	1.9BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/2015	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6J	ND
cis-1,2-Dichloroethene	PPB	5	3.2J	2.2J	ND	4.8	ND	2.3	1.8J	1.0J	1.2J	7.3	12JD
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	3.4	2.4	ND	0.68J	5.3	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.6B	4.6B	3.6B	5.1B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	260	280	44	330	440	150	140	210D	190D	1700E	1900D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	11	9.8	0.88	14	17	6.3	5.8	5.5	4.9	32	43D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	0.93J	0.53J	ND	0.89 J	0.76J	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2DDL
Screen Intervals		Groundwater	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	2.1BJ	2.2BJ	ND	2.0BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	3	ND	2.3	4.1	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	1.3J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2D	MW-2DDL
Screen Intervals		Groundwater	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
Chloroform	PPB	7	4.4	ND	4	4.6 J	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.59J	ND
cis-1,2-Dichloroethene	PPB	5	1.7J	2.2J	3.7	ND	ND	0.86J	ND	0.88J	1.3J	1.8	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	2.4	ND	1.9	3.4	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	0.88 J	ND	ND	ND	ND	0.55J	0.56J	0.87J	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.5B	4.6B	3.9B	5.5B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	68	200	150	220	480	140	130	160	110	500E	480D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	3	3.8	4.2	3.3	7.1	2.2	2.2	2.5	2.0	12	12D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.6BJ	2.2BJ	1.3J	2.1BJ	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	2.5	ND	2	2.1	ND	0.61J	ND	ND	ND	ND
Bromoform	PPB	50*	1.7J	ND	ND	2.2 J	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S	MW-2S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	3.2	ND	2.2 J	1.4 J	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.45J
cis-1,2-Dichloroethene	PPB	5	0.98J	0.71J	ND	ND	ND	ND	0.90J	0.81J	0.99J	1.5
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	2.6	ND	2.5	3.1	ND	0.67J	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.57J
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.6B	4.9B	3.6B	5.4B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	140	200	260	190	490	28	73	73	51	110
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	3.5	2.5	4.6	2.8	6.3	0.90J	1.8J	1.5J	1.2J	2.8
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3DDL
Screen Intervals		Groundwater	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	2.0BJ	1.4BJ	2.3J	2.2BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	1.1	ND	0.74	1.2	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	0.85J	ND	ND	1.2 J	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3D	MW-3DDL
Screen Intervals		Groundwater	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'	24-29'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
Chloroform	PPB	7	1.8J	ND	1.7 J	0.89 J	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48J	ND
cis-1,2-Dichloroethene	PPB	5	ND	2.9	1 J	ND	ND	ND	ND	ND	ND	3	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	1.2	ND	0.74	1.4	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.87J	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.5B	4.7B	4.0B	5.1B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	30	260E	99	64	510	94	90	78	100	860E	840D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	0.92	4.9	2.1	0.95	7	1.5J	1.8	1.2J	1.9J	22	22D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S
Screen Intervals		Groundwater	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.6BJ	1.7BJ	1.3J	1.8BJ	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S
Screen Intervals		Groundwater	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'	18-23'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	1.2J	1.2J	ND	ND	ND	0.73J	0.66J	1.0J	1.4J	1.7
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	0.53	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	0.52J	0.56J	0.65J	0.79J
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.6B	4.5B	3.6B	5.6B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	180	160	190	390	420	110	120	120	91	170
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	3.6	2.8	3.2	5.8	6.4	2.1	2.0J	2.3	1.9J	4.4
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

**Notes:**

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4DDL
Screen Intervals		Groundwater	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.9BJ	1.5BJ	1.4J	1.9BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	0.32J	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	1.3 J	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4D	MW-4DDL
Screen Intervals		Groundwater	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'	23-28'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
Chloroform	PPB	7	ND	ND	ND	1.6 J	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.59J	ND
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	1.0J	0.54J	0.71J	0.63J	4.4	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	0.62	ND	ND	1.9	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	1J	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.8B	4.6B	4.1B	6.1B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	81	77	240	9.4	260	130	110	140	150	1900E	1800D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	1.6	1.7	3.6	ND	3	4.1	3.0	3.6	4.0	45	42D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.61J	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4SDL
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													20
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	2.3BJ	2.6BJ	ND	1.7BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	0.21J	ND	0.92 J	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	1.7 J	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4S	MW-4SDL
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													20
Analyte:	Units:												
Chloroform	PPB	7	ND	ND	2 J	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	1.2J	ND	ND	ND	ND	0.79J	1.1J	ND	ND	1.4	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	0.58	ND	0.93 J	0.65 J	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54J	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.8B	4.5B	3.9B	5.0B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	160	260E	210	180	380	100	88	94	88	450E	500D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	3.6	3.2	3.8	2.6	4.8J	2.9	2.4	1.7J	1.7J	12	13JD
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000	ND	ND**									

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D
Screen Intervals		Groundwater	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	1.4J	1.1J	3.3 J	4.5	0.94J	ND	ND	0.55J	0.96J	2.6
1,1-Dichloroethene	PPB	5	0.26J	0.29J	0.64 J	0.77	0.44J	ND	ND	ND	ND	0.52J
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	2.2BJ	3.1BJ	ND	3.3BJ	ND
Acrylonitrile	PPB	5	ND	ND	ND	2.8 J	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D	MW-5D
Screen Intervals		Groundwater	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'	22-27'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.47J
cis-1,2-Dichloroethene	PPB	5	0.81J	ND	3.6 J	3.9	2J	0.52J	ND	ND	ND	8
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	9.3	3	27	23	15	1.8J	7.1	1.8J	3.6	30
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.9B	4.7B	3.8B	6.2B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	35	9.7	130	94	63	11	12	2.8	6.4	170
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	3.5	1.2	11	10	5.2	1.1J	1.4J	0.51J	0.87J	11
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	0.13J	ND	0.71 J	1.2	0.44J	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

**Notes:**

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5SDL
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	1.4J	ND	ND	ND	ND	ND	0.92J	1.0J	2.2	ND
1,1-Dichloroethene	PPB	5	0.54J	ND	0.85 J	1.1	0.6J	ND	ND	0.68J	0.78J	0.7J	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.9BJ	2.7BJ	ND	2.0BJ	ND	ND
Acrylonitrile	PPB	5	ND	4.2J	ND	6.6 J	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12	09/25/12
Dilution Factor														10
Analyte:	Units:													
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.42J	ND	ND
cis-1,2-Dichloroethene	PPB	5	6.4	11	11 J	23	14	2.4	3.5	4.8	5.8	12	12D	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	30	30	35	50	34	5.3	23	30	32	33	28D	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	5.0B	4.8B	4.0B	5.0B	ND	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	180	190	370	260	200	69	63	150D	190D	430E	450D	ND
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	18	18	29	26	16	3.7	6.4	13	14	25	27D	ND
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	1J	1.6J	1.9 J	3.5 J	1.1J	ND	0.68J	1.2J	1.6J	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000												

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9DL
Screen Intervals		Groundwater	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	2.2J	ND	ND	ND	1.6	1.5BJ	1.7BJ	1.5J	2.9BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	0.63	0.42 J	ND	ND	0.78J	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	1.0J	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9	MW-9DL
Screen Intervals		Groundwater	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													10
Analyte:	Units:												
Chloroform	PPB	7	ND	ND	1.9 J	0.91 J	ND	ND	0.99J	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.49J	ND
cis-1,2-Dichloroethene	PPB	5	2.2J	2.0J	1.4 J	22	27	15	ND	12	14	39	35D
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	0.39 J	0.37 J	ND	ND	1.2J	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	0.50	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.47J	0.79J
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.7B	4.7B	3.7B	5.0B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	18	11	4.4	5.2	43	12	3.6	91	93	730E	680D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	0.97	0.72	0.89	1.6	4.6	2.1	0.50J	4.8	6.9	20	18D
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	0.1J	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000											

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Screen Intervals		Groundwater	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.6BJ	1.7BJ	1.6J	3.0BJ	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	0.60J	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Screen Intervals		Groundwater	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'	3-13'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	0.86J	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6J
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	0.59J	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.5B	4.6B	3.8B	5.5B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	77	16	15	58	26	21	15	17	15	27
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	1.2	0.49J	0.32 J	1.2	0.72	0.61J	0.51J	ND	ND	0.51J
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

**Notes:**

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D
Screen Intervals		Groundwater	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	3.6	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	1.9J	2.0BJ	2.8BJ	ND	5.6B	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D	MW-14 D
Screen Intervals		Groundwater	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'	25-35'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	ND	ND	ND	ND	ND	7.7	ND	ND	1.7
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	4.9B	4.8B	4.3B	5.9B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	ND	ND	ND	ND	ND	ND	3.6	ND	ND	ND
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	0.54J	ND	ND	ND
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14S	MW-14S	MW-14S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	6/15/2017	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	4.8	1.6J	15	19	18	4.2	ND	1.8J	3.4	24
1,1-Dichloroethene	PPB	5	ND	ND	0.51	0.55	0.59	ND	ND	ND	ND	1.5
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	0.18 J	0.16J	ND	ND	ND	ND	NA
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	1.5J	ND	2.3BJ	ND	5.2B	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND



Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14S	MW-14S	MW-14S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S	MW-14 S
Screen Intervals		Groundwater	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'	17-22'
Sampling Date:		Standards	06/28/18	12/20/17	6/15/2017	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Methyl tert-butyl ether	PPB	10	12	4.4	44	38	24	7.5	ND	5.1	12	19
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	5.0B	5.2B	4.0B	5.7B	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Tetrachloroethene	PPB	5	0.51	0.68	3.3	7	4.9	3.2	ND	5.7	7.5	10
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.47J
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	ND	ND	0.42 J	0.9	0.51	ND	ND	ND	0.88J	0.93J
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

**Notes:**

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT
Screen Intervals		Groundwater	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'
Sampling Date:		Standards	12/20/17	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	08/02/2011
Dilution Factor												
Analyte:	Units:											
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	4.5J	ND	1.5 J	ND	ND	1.9BJ	1.7BJ	1.5J	5.3B	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Bromodichloromethane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	1.5 J	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT	MW-14 WT
Screen Intervals		Groundwater	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'	4-9'
Sampling Date:		Standards	12/20/17	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	08/02/2011
Dilution Factor												
Analyte:	Units:											
Chloroform	PPB	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Methyl tert-butyl ether	PPB	10	2J	1.2J	1.7 J	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	5.0B	4.7B	3.8B	5.8B	15B
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
Tetrachloroethene	PPB	5	31	60	92	51	26	7.3	16	12	5.2	19
Toluene	PPB	5	ND	ND	ND	ND	ND	NU	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	NU	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	NU	ND	ND	ND	ND
Trichloroethene	PPB	5	0.82	1.2	1.9	1.2	0.68	NU	ND	ND	ND	ND
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	NU	ND	ND	ND	NA
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	NU	ND	ND	ND	NA
Vinyl chloride	PPB	2	ND	ND	ND	ND	ND	NU	ND	ND	ND	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000										

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well DL
Screen Intervals		Groundwater	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
1,1,1,2-Tetrachloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	PPB	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	ND
1,1-Dichloroethene	PPB	5	ND	0.96J	ND	0.34 J	ND	ND	ND	ND	ND	2.6	ND
1,1-Dichloropropene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
1,2,4-Trichlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	PPB	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	PPB	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-dichloropropane	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	PPB	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	PPB	50*	ND	ND	ND	ND	ND	1.9BJ	2.6BJ	ND	4.5BJ	ND	ND
Acrylonitrile	PPB	5	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Benzene	PPB	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	PPB	50*	13	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND
Bromoform	PPB	50*	3.2	ND	ND	2.5 J	ND	ND	ND	ND	ND	ND	ND
Bromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65J	ND
Carbon tetrachloride	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Volatile Organic Chemicals  
EPA Method 8260  
Table 1

ISCO was performed during February and July 2015

Client Sample ID:		NYSDEC	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well	DB-1 Well DL
Screen Intervals		Groundwater	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'	55-65'
Sampling Date:		Standards	06/28/18	12/20/17	06/15/17	12/28/16	06/29/16	10/21/15	09/09/15	05/04/15	03/23/15	09/25/12	09/25/12
Dilution Factor													25
Analyte:	Units:												
Chloroform	PPB	7	17	ND	ND	4.6 J	ND	ND	ND	ND	ND	ND	ND
Chloromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6J	ND
cis-1,2-Dichloroethene	PPB	5	2.2J	6.8	18 J	5.7	19J	1.7J	18	3.5	4.3	6.3	ND
cis-1,3-Dichloropropene	PPB	0.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	PPB	5	8.6	ND	ND	4.4	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	PPB	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	PPB	10	ND	20	12 J	1.5 J	7.2J	5.3	ND	3.6	0.54J	130	99D
Methylene chloride	PPB	5	ND	ND	ND	ND	ND	5.1B	4.6B	4.0B	6.0B	ND	ND
n-Butylbenzene	PPB	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
p-Ethyltoluene	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA
sec-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	PPB	5	21	280	600	140	500	46	16	170D	180D	210E	250D
Toluene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	PPB	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	PPB	5	2.5	46	60	17	54	5.7	2.9	13	10	31	27
Trichlorofluoromethane	PPB	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	PPB	50*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	PPB	2	0.26J	2.7	4 J	1.9 J	4.5J	ND	ND	0.93J	1.1J	1.9	ND
1,4-Dioxane (EPA Method 8270D SIM)	ng/l	50000		152									

Notes:

All results in ppb

ND - Not detected

NS-No Standard

NA- Not Analyzed

B- Analyte detected in blank

**Bold-Exceeds NYS Standards**

\* Guidance Value

\*\* 1,4 Dioxane <144. ng/l

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157  
DIOXANE BY METHOD 8270 AND PFC TESTING

Table 2

ISCO was performed during February and July 2015

<b>Client Sample ID:</b>		<b>MW-4S</b>		<b>DB-1</b>		<b>FIELD BLANK</b>	
<b>Screen Intervals</b>		<b>17-22'</b>		<b>55-65'</b>			
<b>Sampling Date:</b>		<b>6/28/2018</b>		<b>6/28/2018</b>		<b>6/28/2018</b>	
<b>Dilution Factor</b>		<b>WATER</b>		<b>WATER</b>		<b>WATER</b>	
<b>Analyte:</b>							
	<b>Units</b>	<b>Results</b>	<b>Qual</b>	<b>Results</b>	<b>Qual</b>	<b>Results</b>	<b>Qual</b>
<b>1,4 Dioxane by 8270D-SIM</b>							
1,4-Dioxane	ug/l	0.144	U	0.0925J	J	-	-

Perfluorinated Alkyl Acids by Isotope Dilution						
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ug/l	0.002	U		0.00185	U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ug/l	0.00456			0.000804	J
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ug/l	0.002	U		0.00185	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ug/l	0.002	U		0.00185	U
Perfluorobutanesulfonic Acid (PFBS)	ug/l	0.00014	J		0.00185	U
Perfluorobutanoic Acid (PFBA)	ug/l	0.000564	J		0.00185	U
Perfluorodecanesulfonic Acid (PFDS)	ug/l	0.002	U		0.00185	U
Perfluorodecanoic Acid (PFDA)	ug/l	0.002	U		0.00185	U
Perfluorododecanoic Acid (PFDoA)	ug/l	0.002	U		0.00185	U
Perfluoroheptanesulfonic Acid (PFHpS)	ug/l	0.002	U		0.00185	U
Perfluoroheptanoic Acid (PFHpA)	ug/l	0.002	U		0.00185	U
Perfluorohexanesulfonic Acid (PFHxS)	ug/l	0.000424	J		0.000126	J
Perfluorohexanoic Acid (PFHxA)	ug/l	0.000468	J		0.00185	U
Perfluorononanoic Acid (PFNA)	ug/l	0.000248	J		0.00185	U
Perfluorooctanesulfonamide (FOSA)	ug/l	0.002	U		0.00185	U
Perfluorooctanesulfonic Acid (PFOS)	ug/l	0.004			0.00185	U
Perfluorooctanoic Acid (PFOA)	ug/l	0.00104	J		0.000178	J
Perfluoropentanoic Acid (PFPeA)	ug/l	0.000504	J		0.00185	U
Perfluorotetradecanoic Acid (PFTA)	ug/l	0.002	U		0.000337	J
Perfluorotridecanoic Acid (PFTrDA)	ug/l	0.002	U		0.00185	U
Perfluoroundecanoic Acid (PFUnA)	ug/l	0.002	U		0.00185	U

Minute Man Cleaners  
89 Ocean Ave.  
East Rockaway, NY  
Site # C130157

Soil Vapor  
EPA Method TO-15  
Table 3

LOCATION			EFFLUENT
SAMPLING DATE			6/28/2018
SAMPLE TYPE			SOIL_VAPOR
SAMPLE DEPTH (ft.)			
	NY-SSC	Units	Results
1,1,1-Trichloroethane	5	ug/m3	ND
1,1,2,2-Tetrachloroethane	5	ug/m3	ND
1,1,2-Trichloro-1,2,2-Trifluoroethane	5	ug/m3	ND
1,1,2-Trichloroethane	5	ug/m3	ND
1,1-Dichloroethane	5	ug/m3	ND
1,1-Dichloroethene	5	ug/m3	ND
1,2,4-Trichlorobenzene	5	ug/m3	ND
1,2,4-Trimethylbenzene	5	ug/m3	ND
1,2-Dibromoethane	5	ug/m3	ND
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5	ug/m3	ND
1,2-Dichlorobenzene	5	ug/m3	ND
1,2-Dichloroethane	5	ug/m3	ND
1,2-Dichloropropane	5	ug/m3	ND
1,3,5-Trimethylbenzene	5	ug/m3	ND
1,3-Butadiene	5	ug/m3	ND
1,3-Dichlorobenzene	5	ug/m3	ND
1,4-Dichlorobenzene	5	ug/m3	ND
1,4-Dioxane	5	ug/m3	ND
2,2,4-Trimethylpentane	5	ug/m3	ND
2-Butanone	5	ug/m3	ND
2-Hexanone	5	ug/m3	ND
3-Chloropropene	5	ug/m3	ND
4-Ethyltoluene	5	ug/m3	ND
4-Methyl-2-pentanone	5	ug/m3	ND
Acetone	5	ug/m3	3.82
Benzene	5	ug/m3	ND
Benzyl chloride	5	ug/m3	ND
Bromodichloromethane	5	ug/m3	ND
Bromoform	5	ug/m3	ND
Bromomethane	5	ug/m3	ND
Carbon disulfide	5	ug/m3	ND
Carbon tetrachloride	5	ug/m3	ND
Chlorobenzene	5	ug/m3	ND
Chloroethane	5	ug/m3	ND
Chloroform	5	ug/m3	ND
Chloromethane	5	ug/m3	0.64
cis-1,2-Dichloroethene	5	ug/m3	1.78

Minute Man Cleaners  
89 Ocean Ave.  
East Rockaway, NY  
Site # C130157

Soil Vapor  
EPA Method TO-15  
Table 3

LOCATION			EFFLUENT
SAMPLING DATE			6/28/2018
SAMPLE TYPE			SOIL_VAPOR
SAMPLE DEPTH (ft.)			
	NY-SSC	Units	Results
cis-1,3-Dichloropropene	5	ug/m3	ND
Cyclohexane	5	ug/m3	ND
Dibromochloromethane	5	ug/m3	ND
Dichlorodifluoromethane	5	ug/m3	1.98
Ethyl Acetate	5	ug/m3	8.07
Ethyl Alcohol	5	ug/m3	21.7
Ethylbenzene	5	ug/m3	ND
Heptane		ug/m3	ND
Hexachlorobutadiene	5	ug/m3	ND
iso-Propyl Alcohol	5	ug/m3	ND
Methyl tert butyl ether	5	ug/m3	ND
Methylene chloride	5	ug/m3	ND
n-Hexane	5	ug/m3	ND
o-Xylene	5	ug/m3	ND
p/m-Xylene	5	ug/m3	ND
Styrene	5	ug/m3	ND
tert-Butyl Alcohol	5	ug/m3	ND
Tetrachloroethene	5	ug/m3	726
Tetrahydrofuran	5	ug/m3	ND
Toluene	5	ug/m3	ND
trans-1,2-Dichloroethene	5	ug/m3	ND
trans-1,3-Dichloropropene	5	ug/m3	ND
Trichloroethene	5	ug/m3	1.64
Trichlorofluoromethane	5	ug/m3	ND
Vinyl bromide	5	ug/m3	ND
Vinyl chloride	5	ug/m3	ND

NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations  
Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006,  
and updated May 2017.



LOCATION					EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
SAMPLING DATE					12/20/17	12/20/17	6/15/2017	12/28/2016	6/29/2016	6/29/2016
DILUTION FACTOR						3.507				23.08
	NY-IAC	NY-SSC	NY-AGV	Units	Results	Results	Results	Results	Results	Results
1,1,1-Trichloroethane	0.25	5	NA	ug/m3	ND	-	ND	3.11	ND	-
1,1,2,2-Tetrachloroethane	0.25	5	NA	ug/m3	ND	-	ND	1.13	ND	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,1,2-Trichloroethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,1-Dichloroethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,1-Dichloroethene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2,4-Trichlorobenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2,4-Trimethylbenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2-Dibromoethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.25	5	NA	ug/m3	ND	-	ND	10	ND	-
1,2-Dichlorobenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2-Dichloroethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,2-Dichloropropane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,3,5-Trimethylbenzene	0.25	5	NA	ug/m3	ND	-	ND	3.85	ND	-
1,3-Butadiene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,3-Dichlorobenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,4-Dichlorobenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
1,4-Dioxane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
2,2,4-Trimethylpentane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
2-Butanone	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
2-Hexanone	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
3-Chloropropene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
4-Ethyltoluene	0.25	5	NA	ug/m3	14	-	9.24	2.44	ND	-
4-Methyl-2-pentanone	0.25	5	NA	ug/m3	0.748	-	ND	ND	ND	-
Acetone	0.25	5	NA	ug/m3	ND	-	ND	ND	846	-
Benzene	0.25	5	NA	ug/m3	ND	-	ND	5.6	ND	-
Benzyl chloride	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Bromodichloromethane	0.25	5	NA	ug/m3	ND	-	ND	12.4	ND	-
Bromoform	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Bromomethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Carbon disulfide	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Carbon tetrachloride	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Chlorobenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Chloroethane	0.25	5	NA	ug/m3	0.807	-	0.958	ND	ND	-
Chloroform	0.25	5	NA	ug/m3	2.53	-	1.08	ND	ND	-
Chloromethane	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
cis-1,2-Dichloroethene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
cis-1,3-Dichloropropene	0.25	5	NA	ug/m3	ND	-	ND	1.9	ND	-
Cyclohexane	0.25	5	NA	ug/m3	2.24	-	2.12	ND	ND	-

Minute Man Cleaners  
89 Ocean Ave  
East Rockaway, NY  
Site #C130157

Historical Soil Vapor  
EPA Method TO-15  
Table 4

LOCATION					EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
SAMPLING DATE					12/20/17	12/20/17	6/15/2017	12/28/2016	6/29/2016	6/29/2016
DILUTION FACTOR						3.507				23.08
	NY-IAC	NY-SSC	NY-AGV	Units	Results	Results	Results	Results	Results	Results
Dibromochloromethane	0.25	5	NA	ug/m3	1.8	-	12.4	ND	ND	-
Dichlorodifluoromethane	0.25	5	NA	ug/m3	12.4	-	ND	ND	ND	-
Ethyl Acetate	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Ethyl Alcohol	0.25	5	NA	ug/m3	ND	-	ND	9.23	ND	-
Ethylbenzene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Heptane	0.25	5	NA	ug/m3	0.824	-	ND	ND	ND	-
Hexachlorobutadiene	0.25	5	NA	ug/m3	2.13	-	ND	ND	ND	-
iso-Propyl Alcohol	0.25	5	NA	ug/m3	ND	-	ND	1140	ND	-
Methyl tert butyl ether	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Methylene chloride	0.25	5	NA	ug/m3	ND	-	ND	6.3	ND	-
n-Hexane	0.25	5	NA	ug/m3	0.937	-	ND	12.6	ND	-
o-Xylene	0.25	5	NA	ug/m3	0.869	-	ND	ND	ND	-
p/m-Xylene	0.25	5	NA	ug/m3	1.82	-	ND	ND	ND	-
Styrene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
tert-Butyl Alcohol	0.25	5	NA	ug/m3	ND	-	ND	3.65	23.7	-
Tetrachloroethene	0.25	5	30	ug/m3	1040	1660	464	ND	10800E	8140
Tetrahydrofuran	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Toluene	0.25	5	NA	ug/m3	6.93	-	0.776	2.41	ND	-
trans-1,2-Dichloroethene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
trans-1,3-Dichloropropene	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Trichloroethene	0.25	5	2	ug/m3	2.75	-	ND	ND	26.8	-
Trichlorofluoromethane	0.25	5	NA	ug/m3	1.19	-	1.13	ND	ND	-
Vinyl bromide	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-
Vinyl chloride	0.25	5	NA	ug/m3	ND	-	ND	ND	ND	-

**Notes:**

ND -The compound was not detected at the indicated concentration.

E -The reported value is estimated because of the presence of interference.

## Table 5 Air Emissions (60 CFM)

Minute Man Cleaners  
Soil Vapor Extraction System Blower No. 1

Jul-18

Emission rate potential from the Soil Vapor Extraction System

**SAMPLING DATE**

**12/20/17**

Flow Rates:

Air = 60 cfm = 1.699 Cu. meters/min = 101.95 Cu. meters/hour

Dimensional Conversion:

[gpm] \* 3.785 l/gal \* [ug/l] \* 10e-9 kg/ug \* 2.205 lb/kg \* 60 Min/hr = [ ] pounds per hour  
[gpm] \* [ug/l] \* 0.0000005

Contaminants:			ERP		Discharge Concentration	Air Guide - 1 Evaluation	CAS Reg	ug/m3 SGC	ug/m3 AGC	
94.82% Tetrachloroethene	0.07402	g/hour	0.00016	lb/hour	726.0	ug/cu meter	High	127-18-4	300	4 ug/cubic meter
0.50% Acetone	0.00039	g/hour	0.00000	lb/hour	3.8	ug/cu meter	Low	67-64-1	180,000	30,000 ug/cubic meter
1.05% Ethyl Acetate	0.00082	g/hour	0.00000	lb/hour	8.1	ug/cu meter	Mod	141-78-6	-	3,400 ug/cubic meter
2.83% Ethyl Alcohol	0.00221	g/hour	0.00000	lb/hour	21.7	ug/cu meter	Low	64-17-5	-	45,000 ug/cubic meter
0.26% Dichlorodifluoromethane	0.00020	g/hour	0.00000	lb/hour	2.0	ug/cu meter	-	75-71-8	-	12,000 ug/cubic meter
0.23% cis-1,2-Dichloroethene	0.00018	g/hour	0.00000	lb/hour	1.8	ug/cu meter	Mod	156-59-2	-	63 ug/cubic meter
0.08% Chloromethane	0.00007	g/hour	0.00000	lb/hour	0.6	ug/cu meter	Mod	74-87-3	22,000	90 ug/cubic meter
0.21% Trichloroethene	0.00017	g/hour	0.00000	lb/hour	1.6	ug/cu meter	High	79-01-6	20	0.20 ug/cubic meter
100.00%	0.078058	g/hour	0.00017	lb/hour	765.6					
	1.87338023	g/day	0.00413	lb/day						
	683.783785	g/year	1.50749	lb/year						

Initial Ratings:

A TetraChloroethene - refer to IV.B.1.a for emission rate < 0.1 pound per hour: can consider no control if ambient impact < AGC and SGC

Appendix "B" Evaluation (1994 Edition):

Assume dimensions as follows:

building = 10 feet above grade horizontal dimension > 10 feet: squat structure  
Stack = 13 feet above grade

II Cavity impacts: none - stack height > 2.5 times building height and distance to the property line are > 3 times the height of the building.

III Point and Area Source Air Quality Impacts

A.1.c - discharge buoyancy

11.41 = V, exit velocity [ft/sec]  
0.167 =R, stack outlet radius [feet]  
513 =T, stack exit temp. [Rankine] = F +460  
0.0005 =F, buoyancy flux parameter [meter\*\*4 / sec\*\*3] = .276 V R\*\*2 (T-510) / T

## Table 5 Air Emissions (60 CFM)

Minute Man Cleaners  
Soil Vapor Extraction System Blower No. 1

Jul-18

Emission rate potential from the Soil Vapor Extraction System

A.1.d - effective stack height

$$13.02 = h\text{-eff. [ft]} = h\text{-stack} + 7 * F^{**}.75, \text{ for } F < 55$$

A.2 - Maximum Actual Annual Impact

1991 Formula:

Assume uniform influent for initial screening step

$$245.8908 = Ca \text{ [ug/M**3]} = 6 Qa / h\text{-eff**}2.25,$$

$$13205.581 = Qa \text{ [lbs/year]}$$

$$24.8866 \text{ ug/}$$

A.3 - Maximum Potential Annual Impact

$$0.0280 = C\text{-pot [ug/M**3]} = 52500 Q / h\text{-eff**}2.25$$

$$0.0002 = Q \text{ [lbs/hr]}$$

A.4 - Stack Height Reduction of Impacts

1 = multiplication factor for h-stack/h-building < 2.5

$$245.891 = Ca \text{ [ug/M**3]}$$

$$0.028 = Cp \text{ [ug/M**3]}$$

A.5 - Maximum Short-Term Impact

$$1.822 = Cst \text{ [ug/M**3]} = Cp * 65$$

Summary for all Compounds of Interest:

Contaminants:	ERP	Air Guide - 1 Appendix "B" Screening Criteria					SGC	Acceptable?
		A.2	A.3	A.4	AGC	Acceptable?		
Tetrachloroethene	0.00016 lb/hour	0.0266	0.0266	0.0266	4	YES	1.73	300 YES
Acetone	0.00000 lb/hour	0.0001	0.0001	0.0001	30,000	YES	0.01	180,000 YES
Ethyl Acetate	0.00000 lb/hour	0.0003	0.0003	0.0003	3,400	YES	0.02 -	YES
Ethyl Alcohol	0.00000 lb/hour	0.0008	0.0008	0.0008	45,000	YES	0.05 -	YES
Dichlorodifluoromethane	0.00000 lb/hour	0.0001	0.0001	0.0001	12,000	YES	0.00 -	YES
cis-1,2-Dichloroethene	0.00000 lb/hour	0.0001	0.0001	0.0001	63	YES	0.00 -	YES
Chloromethane	0.00000 lb/hour	0.0000	0.0000	0.0000	90	YES	0.00	22,000 YES
Trichloroethene	0.00000 lb/hour	0.0000	0.0000	0.0000	0	YES	0.00	22,000 YES
	0.00017 lb/hour							

Semi-Annual Sampling Report  
NYSDEC Site Number: C130157  
Minute Man Cleaners  
89 Ocean Avenue  
East Rockaway, Nassau County, New York 11518  
July 2018

## **Appendix A – Groundwater Analytical Laboratory Report**



## ANALYTICAL REPORT

Lab Number:	L1824924
Client:	J.R. Holzmacher P.E., LLC 3555 Veterans Memorial Highway Suite A Ronkonkoma, NY 11779
ATTN:	AJ Scheff
Phone:	(631) 234-2220
Project Name:	MIN MAN CLEANERS
Project Number:	MANID 16-01
Report Date:	07/11/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1824924

Report Date: 07/11/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1824924-01	DB-1	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 10:43	06/29/18
L1824924-02	FIELD BLANK	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 09:35	06/29/18
L1824924-03	MW-1S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 13:34	06/29/18
L1824924-04	MW-1D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 13:45	06/29/18
L1824924-05	MW-2S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 12:53	06/29/18
L1824924-06	MW-2D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 13:13	06/29/18
L1824924-07	MW-3S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 11:47	06/29/18
L1824924-08	MW-3D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 12:10	06/29/18
L1824924-09	MW-4S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 11:05	06/29/18
L1824924-10	MW-4D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 11:25	06/29/18
L1824924-11	MW-5S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 09:40	06/29/18
L1824924-12	MW-5D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 09:59	06/29/18
L1824924-13	MW-9	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 10:20	06/29/18
L1824924-14	MW-12	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 12:33	06/29/18
L1824924-15	MW-14S	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 08:53	06/29/18
L1824924-16	MW-14D	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 08:34	06/29/18
L1824924-17	MW-14WT	WATER	89 OCEAN AVE., E. ROCKAWAY, NY	06/28/18 09:15	06/29/18

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

### Case Narrative (continued)

#### Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

#### Perfluorinated Alkyl Acids by Isotope Dilution

L1824924-02, -09, WG1131820-1/-2/-3 and WG1133643-1/-2/-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1131820-2/-3 LCS/LCSD RPD, associated with L1824924-02, is above the acceptance criteria for perfluorodecanesulfonic acid (pfds) (35%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 07/11/18

# ORGANICS

# **VOLATILES**

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-01  
 Client ID: DB-1  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 10:43  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 19:15  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	17		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	8.6		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	21		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	13		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	3.2		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.26	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-01

Date Collected: 06/28/18 10:43

Client ID: DB-1

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-01**Date Collected:** 06/28/18 10:43**Client ID:** DB-1**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	99		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-03 D  
 Client ID: MW-1S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 13:34  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 19:41  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	10	2.8	4
1,1-Dichloroethane	ND		ug/l	10	2.8	4
Chloroform	ND		ug/l	10	2.8	4
Carbon tetrachloride	ND		ug/l	2.0	0.54	4
1,2-Dichloropropane	ND		ug/l	4.0	0.55	4
Dibromochloromethane	ND		ug/l	2.0	0.60	4
1,1,2-Trichloroethane	ND		ug/l	6.0	2.0	4
Tetrachloroethene	260		ug/l	2.0	0.72	4
Chlorobenzene	ND		ug/l	10	2.8	4
Trichlorofluoromethane	ND		ug/l	10	2.8	4
1,2-Dichloroethane	ND		ug/l	2.0	0.53	4
1,1,1-Trichloroethane	ND		ug/l	10	2.8	4
Bromodichloromethane	ND		ug/l	2.0	0.77	4
trans-1,3-Dichloropropene	ND		ug/l	2.0	0.66	4
cis-1,3-Dichloropropene	ND		ug/l	2.0	0.58	4
1,3-Dichloropropene, Total	ND		ug/l	2.0	0.58	4
1,1-Dichloropropene	ND		ug/l	10	2.8	4
Bromoform	ND		ug/l	8.0	2.6	4
1,1,2,2-Tetrachloroethane	ND		ug/l	2.0	0.67	4
Benzene	ND		ug/l	2.0	0.64	4
Toluene	ND		ug/l	10	2.8	4
Ethylbenzene	ND		ug/l	10	2.8	4
Chloromethane	ND		ug/l	10	2.8	4
Bromomethane	ND		ug/l	10	2.8	4
Vinyl chloride	0.93	J	ug/l	4.0	0.28	4
Chloroethane	ND		ug/l	10	2.8	4
1,1-Dichloroethene	ND		ug/l	2.0	0.68	4
trans-1,2-Dichloroethene	ND		ug/l	10	2.8	4

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-03 D  
 Client ID: MW-1S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 13:34  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	11		ug/l	2.0	0.70	4
1,2-Dichlorobenzene	ND		ug/l	10	2.8	4
1,3-Dichlorobenzene	ND		ug/l	10	2.8	4
1,4-Dichlorobenzene	ND		ug/l	10	2.8	4
Methyl tert butyl ether	ND		ug/l	10	2.8	4
p/m-Xylene	ND		ug/l	10	2.8	4
o-Xylene	ND		ug/l	10	2.8	4
Xylenes, Total	ND		ug/l	10	2.8	4
cis-1,2-Dichloroethene	3.2	J	ug/l	10	2.8	4
1,2-Dichloroethene, Total	3.2	J	ug/l	10	2.8	4
Dibromomethane	ND		ug/l	20	4.0	4
1,2,3-Trichloropropane	ND		ug/l	10	2.8	4
Acrylonitrile	ND		ug/l	20	6.0	4
Styrene	ND		ug/l	10	2.8	4
Dichlorodifluoromethane	ND		ug/l	20	4.0	4
Acetone	ND		ug/l	20	5.8	4
Carbon disulfide	ND		ug/l	20	4.0	4
2-Butanone	ND		ug/l	20	7.8	4
Vinyl acetate	ND		ug/l	20	4.0	4
4-Methyl-2-pentanone	ND		ug/l	20	4.0	4
2-Hexanone	ND		ug/l	20	4.0	4
Bromochloromethane	ND		ug/l	10	2.8	4
2,2-Dichloropropane	ND		ug/l	10	2.8	4
1,2-Dibromoethane	ND		ug/l	8.0	2.6	4
1,3-Dichloropropane	ND		ug/l	10	2.8	4
1,1,1,2-Tetrachloroethane	ND		ug/l	10	2.8	4
Bromobenzene	ND		ug/l	10	2.8	4
n-Butylbenzene	ND		ug/l	10	2.8	4
sec-Butylbenzene	ND		ug/l	10	2.8	4
tert-Butylbenzene	ND		ug/l	10	2.8	4
o-Chlorotoluene	ND		ug/l	10	2.8	4
p-Chlorotoluene	ND		ug/l	10	2.8	4
1,2-Dibromo-3-chloropropane	ND		ug/l	10	2.8	4
Hexachlorobutadiene	ND		ug/l	10	2.8	4
Isopropylbenzene	ND		ug/l	10	2.8	4
p-Isopropyltoluene	ND		ug/l	10	2.8	4
Naphthalene	ND		ug/l	10	2.8	4



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-03 D  
 Client ID: MW-1S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 13:34  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	10	2.8	4
1,2,3-Trichlorobenzene	ND		ug/l	10	2.8	4
1,2,4-Trichlorobenzene	ND		ug/l	10	2.8	4
1,3,5-Trimethylbenzene	ND		ug/l	10	2.8	4
1,2,4-Trimethylbenzene	ND		ug/l	10	2.8	4
1,4-Dioxane	ND		ug/l	1000	240	4
p-Diethylbenzene	ND		ug/l	8.0	2.8	4
p-Ethyltoluene	ND		ug/l	8.0	2.8	4
1,2,4,5-Tetramethylbenzene	ND		ug/l	8.0	2.2	4
Ethyl ether	ND		ug/l	10	2.8	4
trans-1,4-Dichloro-2-butene	ND		ug/l	10	2.8	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-04  
 Client ID: MW-1D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 13:45  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 20:06  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	88		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.15	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-04

Date Collected: 06/28/18 13:45

Client ID: MW-1D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.7		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	0.72	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-04

Date Collected: 06/28/18 13:45

Client ID: MW-1D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-05  
 Client ID: MW-2S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 12:53  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 20:31  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	3.2		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	2.6		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	140		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	2.5		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	1.7	J	ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-05**Date Collected:** 06/28/18 12:53**Client ID:** MW-2S**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.98	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.98	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-05**Date Collected:** 06/28/18 12:53**Client ID:** MW-2S**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-06  
 Client ID: MW-2D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 13:13  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 20:56  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	4.4		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	2.4		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	68		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	3.0		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	1.3	J	ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-06

Date Collected: 06/28/18 13:13

Client ID: MW-2D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.0		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.7	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.7	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-06**Date Collected:** 06/28/18 13:13**Client ID:** MW-2D**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-07  
 Client ID: MW-3S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 11:47  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 21:21  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	0.53		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	180		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-07

Date Collected: 06/28/18 11:47

Client ID: MW-3S

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.6		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-07**Date Collected:** 06/28/18 11:47**Client ID:** MW-3S**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	98		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-08  
 Client ID: MW-3D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 12:10  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 21:46  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	1.8	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	1.2		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	30		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	1.1		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	0.85	J	ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-08

Date Collected: 06/28/18 12:10

Client ID: MW-3D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.92		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-08**Date Collected:** 06/28/18 12:10**Client ID:** MW-3D**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-09  
 Client ID: MW-4S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 11:05  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 22:12  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	0.58		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	160		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.21	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-09

Date Collected: 06/28/18 11:05

Client ID: MW-4S

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.6		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-09**Date Collected:** 06/28/18 11:05**Client ID:** MW-4S**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	96		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-10  
 Client ID: MW-4D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 11:25  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 22:37  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	0.62		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	81		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.32	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-10

Date Collected: 06/28/18 11:25

Client ID: MW-4D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.6		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-10**Date Collected:** 06/28/18 11:25**Client ID:** MW-4D**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	97		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-11 D  
 Client ID: MW-5S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:40  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 19:57  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethane	ND		ug/l	6.2	1.8	2.5
Chloroform	ND		ug/l	6.2	1.8	2.5
Carbon tetrachloride	ND		ug/l	1.2	0.34	2.5
1,2-Dichloropropane	ND		ug/l	2.5	0.34	2.5
Dibromochloromethane	ND		ug/l	1.2	0.37	2.5
1,1,2-Trichloroethane	ND		ug/l	3.8	1.2	2.5
Tetrachloroethene	180		ug/l	1.2	0.45	2.5
Chlorobenzene	ND		ug/l	6.2	1.8	2.5
Trichlorofluoromethane	ND		ug/l	6.2	1.8	2.5
1,2-Dichloroethane	ND		ug/l	1.2	0.33	2.5
1,1,1-Trichloroethane	ND		ug/l	6.2	1.8	2.5
Bromodichloromethane	ND		ug/l	1.2	0.48	2.5
trans-1,3-Dichloropropene	ND		ug/l	1.2	0.41	2.5
cis-1,3-Dichloropropene	ND		ug/l	1.2	0.36	2.5
1,3-Dichloropropene, Total	ND		ug/l	1.2	0.36	2.5
1,1-Dichloropropene	ND		ug/l	6.2	1.8	2.5
Bromoform	ND		ug/l	5.0	1.6	2.5
1,1,2,2-Tetrachloroethane	ND		ug/l	1.2	0.42	2.5
Benzene	ND		ug/l	1.2	0.40	2.5
Toluene	ND		ug/l	6.2	1.8	2.5
Ethylbenzene	ND		ug/l	6.2	1.8	2.5
Chloromethane	ND		ug/l	6.2	1.8	2.5
Bromomethane	ND		ug/l	6.2	1.8	2.5
Vinyl chloride	1.0	J	ug/l	2.5	0.18	2.5
Chloroethane	ND		ug/l	6.2	1.8	2.5
1,1-Dichloroethene	0.54	J	ug/l	1.2	0.42	2.5
trans-1,2-Dichloroethene	ND		ug/l	6.2	1.8	2.5

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-11 D  
 Client ID: MW-5S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:40  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	18		ug/l	1.2	0.44	2.5
1,2-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dichlorobenzene	ND		ug/l	6.2	1.8	2.5
Methyl tert butyl ether	30		ug/l	6.2	1.8	2.5
p/m-Xylene	ND		ug/l	6.2	1.8	2.5
o-Xylene	ND		ug/l	6.2	1.8	2.5
Xylenes, Total	ND		ug/l	6.2	1.8	2.5
cis-1,2-Dichloroethene	6.4		ug/l	6.2	1.8	2.5
1,2-Dichloroethene, Total	6.4		ug/l	6.2	1.8	2.5
Dibromomethane	ND		ug/l	12	2.5	2.5
1,2,3-Trichloropropane	ND		ug/l	6.2	1.8	2.5
Acrylonitrile	ND		ug/l	12	3.8	2.5
Styrene	ND		ug/l	6.2	1.8	2.5
Dichlorodifluoromethane	ND		ug/l	12	2.5	2.5
Acetone	ND		ug/l	12	3.6	2.5
Carbon disulfide	ND		ug/l	12	2.5	2.5
2-Butanone	ND		ug/l	12	4.8	2.5
Vinyl acetate	ND		ug/l	12	2.5	2.5
4-Methyl-2-pentanone	ND		ug/l	12	2.5	2.5
2-Hexanone	ND		ug/l	12	2.5	2.5
Bromochloromethane	ND		ug/l	6.2	1.8	2.5
2,2-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,2-Dibromoethane	ND		ug/l	5.0	1.6	2.5
1,3-Dichloropropane	ND		ug/l	6.2	1.8	2.5
1,1,1,2-Tetrachloroethane	ND		ug/l	6.2	1.8	2.5
Bromobenzene	ND		ug/l	6.2	1.8	2.5
n-Butylbenzene	ND		ug/l	6.2	1.8	2.5
sec-Butylbenzene	ND		ug/l	6.2	1.8	2.5
tert-Butylbenzene	ND		ug/l	6.2	1.8	2.5
o-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
p-Chlorotoluene	ND		ug/l	6.2	1.8	2.5
1,2-Dibromo-3-chloropropane	ND		ug/l	6.2	1.8	2.5
Hexachlorobutadiene	ND		ug/l	6.2	1.8	2.5
Isopropylbenzene	ND		ug/l	6.2	1.8	2.5
p-Isopropyltoluene	ND		ug/l	6.2	1.8	2.5
Naphthalene	ND		ug/l	6.2	1.8	2.5



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-11 D  
 Client ID: MW-5S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:40  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,3-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trichlorobenzene	ND		ug/l	6.2	1.8	2.5
1,3,5-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,2,4-Trimethylbenzene	ND		ug/l	6.2	1.8	2.5
1,4-Dioxane	ND		ug/l	620	150	2.5
p-Diethylbenzene	ND		ug/l	5.0	1.8	2.5
p-Ethyltoluene	ND		ug/l	5.0	1.8	2.5
1,2,4,5-Tetramethylbenzene	ND		ug/l	5.0	1.4	2.5
Ethyl ether	ND		ug/l	6.2	1.8	2.5
trans-1,4-Dichloro-2-butene	ND		ug/l	6.2	1.8	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-12  
 Client ID: MW-5D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:59  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 17:07  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	1.4	J	ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	35		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.13	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	0.26	J	ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-12

Date Collected: 06/28/18 09:59

Client ID: MW-5D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.5		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	9.3		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	0.81	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	0.81	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-12**Date Collected:** 06/28/18 09:59**Client ID:** MW-5D**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	100		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-13  
 Client ID: MW-9  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 10:20  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 17:35  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	18		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-13

Date Collected: 06/28/18 10:20

Client ID: MW-9

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.97		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	2.2	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	2.2	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.2	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-13**Date Collected:** 06/28/18 10:20**Client ID:** MW-9**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-14  
 Client ID: MW-12  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 12:33  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 18:03  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	77		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-14

Date Collected: 06/28/18 12:33

Client ID: MW-12

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.2		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-14**Date Collected:** 06/28/18 12:33**Client ID:** MW-12**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	102		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-15  
 Client ID: MW-14S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 08:53  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 18:32  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	4.8		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.51		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-15

Date Collected: 06/28/18 08:53

Client ID: MW-14S

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	12		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-15**Date Collected:** 06/28/18 08:53**Client ID:** MW-14S**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-16  
 Client ID: MW-14D  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 08:34  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 19:00  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-16

Date Collected: 06/28/18 08:34

Client ID: MW-14D

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-16**Date Collected:** 06/28/18 08:34**Client ID:** MW-14D**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-17  
 Client ID: MW-14WT  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:15  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 19:28  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	31		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-17

Date Collected: 06/28/18 09:15

Client ID: MW-14WT

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.82		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	2.0	J	ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS****Lab ID:** L1824924-17**Date Collected:** 06/28/18 09:15**Client ID:** MW-14WT**Date Received:** 06/29/18**Sample Location:** 89 OCEAN AVE., E. ROCKAWAY, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 14:13  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1133715-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 14:13  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1133715-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 14:13  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1133715-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 16:39  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-17 Batch: WG1133726-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 16:39  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-17 Batch: WG1133726-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70



Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 07/08/18 16:39  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11-17 Batch: WG1133726-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Lab Number:** L1824924

**Project Number:** MANID 16-01

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1133715-3 WG1133715-4								
Methylene chloride	97		100		70-130	3		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	92		97		63-132	5		20
1,2-Dichloropropane	99		100		70-130	1		20
Dibromochloromethane	72		74		63-130	3		20
1,1,2-Trichloroethane	94		96		70-130	2		20
Tetrachloroethene	110		110		70-130	0		20
Chlorobenzene	98		100		75-130	2		20
Trichlorofluoromethane	130		140		62-150	7		20
1,2-Dichloroethane	98		100		70-130	2		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	94		98		67-130	4		20
trans-1,3-Dichloropropene	87		89		70-130	2		20
cis-1,3-Dichloropropene	92		96		70-130	4		20
1,1-Dichloropropene	110		120		70-130	9		20
Bromoform	69		69		54-136	0		20
1,1,1,2-Tetrachloroethane	87		88		67-130	1		20
Benzene	100		110		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	100		100		64-130	0		20
Bromomethane	120		120		39-139	0		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** MIN MAN CLEANERS

**Lab Number:** L1824924

**Project Number:** MANID 16-01

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1133715-3 WG1133715-4								
Vinyl chloride	120		120		55-140	0		20
Chloroethane	130		140	Q	55-138	7		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	99		100		70-130	1		20
1,2-Dichlorobenzene	96		99		70-130	3		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	80		81		63-130	1		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	98		100		70-130	2		20
Dibromomethane	92		93		70-130	1		20
1,2,3-Trichloropropane	87		87		64-130	0		20
Acrylonitrile	84		84		70-130	0		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	110		120		36-147	9		20
Acetone	69		71		58-148	3		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	79		82		63-138	4		20
Vinyl acetate	88		88		70-130	0		20
4-Methyl-2-pentanone	73		74		59-130	1		20
2-Hexanone	63		64		57-130	2		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1824924

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1133715-3 WG1133715-4								
Bromochloromethane	94		97		70-130	3		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	88		89		70-130	1		20
1,3-Dichloropropane	92		94		70-130	2		20
1,1,1,2-Tetrachloroethane	92		96		64-130	4		20
Bromobenzene	98		100		70-130	2		20
n-Butylbenzene	100		110		53-136	10		20
sec-Butylbenzene	99		100		70-130	1		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	110		120		70-130	9		20
p-Chlorotoluene	100		110		70-130	10		20
1,2-Dibromo-3-chloropropane	64		65		41-144	2		20
Hexachlorobutadiene	110		120		63-130	9		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	97		100		70-130	3		20
Naphthalene	75		76		70-130	1		20
n-Propylbenzene	110		120		69-130	9		20
1,2,3-Trichlorobenzene	83		85		70-130	2		20
1,2,4-Trichlorobenzene	92		94		70-130	2		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
1,4-Dioxane	82		80		56-162	2		20
p-Diethylbenzene	100		110		70-130	10		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Lab Number:** L1824924

**Project Number:** MANID 16-01

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1133715-3 WG1133715-4								
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	98		100		70-130	2		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	77		74		70-130	4		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	101		100		70-130
Dibromofluoromethane	100		100		70-130

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Lab Number:** L1824924

**Project Number:** MANID 16-01

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-17 Batch: WG1133726-3 WG1133726-4								
Methylene chloride	85		86		70-130	1		20
1,1-Dichloroethane	92		92		70-130	0		20
Chloroform	90		90		70-130	0		20
Carbon tetrachloride	94		95		63-132	1		20
1,2-Dichloropropane	88		90		70-130	2		20
Dibromochloromethane	93		94		63-130	1		20
1,1,2-Trichloroethane	94		95		70-130	1		20
Tetrachloroethene	95		94		70-130	1		20
Chlorobenzene	92		93		75-130	1		20
Trichlorofluoromethane	94		92		62-150	2		20
1,2-Dichloroethane	88		91		70-130	3		20
1,1,1-Trichloroethane	93		93		67-130	0		20
Bromodichloromethane	89		90		67-130	1		20
trans-1,3-Dichloropropene	97		96		70-130	1		20
cis-1,3-Dichloropropene	88		88		70-130	0		20
1,1-Dichloropropene	92		94		70-130	2		20
Bromoform	110		110		54-136	0		20
1,1,2,2-Tetrachloroethane	96		98		67-130	2		20
Benzene	96		97		70-130	1		20
Toluene	94		93		70-130	1		20
Ethylbenzene	97		97		70-130	0		20
Chloromethane	94		91		64-130	3		20
Bromomethane	66		62		39-139	6		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1824924

Report Date: 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-17 Batch: WG1133726-3 WG1133726-4								
Vinyl chloride	92		91		55-140	1		20
Chloroethane	88		88		55-138	0		20
1,1-Dichloroethene	94		94		61-145	0		20
trans-1,2-Dichloroethene	92		93		70-130	1		20
Trichloroethene	90		90		70-130	0		20
1,2-Dichlorobenzene	93		95		70-130	2		20
1,3-Dichlorobenzene	94		98		70-130	4		20
1,4-Dichlorobenzene	93		95		70-130	2		20
Methyl tert butyl ether	87		91		63-130	4		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		90		70-130	11		20
cis-1,2-Dichloroethene	90		90		70-130	0		20
Dibromomethane	87		89		70-130	2		20
1,2,3-Trichloropropane	98		100		64-130	2		20
Acrylonitrile	93		100		70-130	7		20
Styrene	110		115		70-130	4		20
Dichlorodifluoromethane	85		83		36-147	2		20
Acetone	92		96		58-148	4		20
Carbon disulfide	93		91		51-130	2		20
2-Butanone	100		100		63-138	0		20
Vinyl acetate	94		96		70-130	2		20
4-Methyl-2-pentanone	90		93		59-130	3		20
2-Hexanone	93		94		57-130	1		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1824924

Report Date: 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-17 Batch: WG1133726-3 WG1133726-4								
Bromochloromethane	90		92		70-130	2		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	92		93		70-130	1		20
1,3-Dichloropropane	92		94		70-130	2		20
1,1,1,2-Tetrachloroethane	95		94		64-130	1		20
Bromobenzene	91		94		70-130	3		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	99		100		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	99		99		70-130	0		20
1,2-Dibromo-3-chloropropane	88		90		41-144	2		20
Hexachlorobutadiene	92		95		63-130	3		20
Isopropylbenzene	99		99		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	86		92		70-130	7		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	89		90		70-130	1		20
1,2,4-Trichlorobenzene	88		90		70-130	2		20
1,3,5-Trimethylbenzene	99		100		64-130	1		20
1,2,4-Trimethylbenzene	81		79		70-130	3		20
1,4-Dioxane	72		74		56-162	3		20
p-Diethylbenzene	100		99		70-130	1		20



# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1824924

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11-17 Batch: WG1133726-3 WG1133726-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	94		96		70-130	2		20
Ethyl ether	86		88		59-134	2		20
trans-1,4-Dichloro-2-butene	93		88		70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	107		110		70-130
Toluene-d8	106		105		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	102		102		70-130

# SEMIVOLATILES

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-01  
 Client ID: DB-1  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 10:43  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 07/09/18 11:14  
 Analyst: TJ

Extraction Method: EPA 3510C  
 Extraction Date: 07/05/18 19:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	92.5	J	ng/l	144	72.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-02  
 Client ID: FIELD BLANK  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:35  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 122,537(M)  
 Analytical Date: 07/03/18 17:46  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/02/18 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.85	0.121	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.85	0.079	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.85	0.102	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.85	0.117	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.85	0.086	1
Perfluorohexanesulfonic Acid (PFHxS)	0.126	J	ng/l	1.85	0.100	1
Perfluorooctanoic Acid (PFOA)	0.178	J	ng/l	1.85	0.047	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.804	J	ng/l	1.85	0.180	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.85	0.144	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.85	0.093	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.85	0.103	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.85	0.176	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.85	0.269	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.85	0.232	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.85	0.177	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.85	0.206	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.85	0.210	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.85	0.345	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.85	0.085	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.85	0.084	1
Perfluorotetradecanoic Acid (PFTA)	0.337	J	ng/l	1.85	0.067	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-02  
 Client ID: FIELD BLANK  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 09:35  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	110		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	138		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	105		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	165	Q	50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	120		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	110		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	139		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	177	Q	50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	134		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	10	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	173	Q	50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	110		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	129		50-150

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-09  
 Client ID: MW-4S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 11:05  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 07/09/18 11:36  
 Analyst: TJ

Extraction Method: EPA 3510C  
 Extraction Date: 07/05/18 19:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	72.1	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	25			15-110		

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-09  
 Client ID: MW-4S  
 Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Date Collected: 06/28/18 11:05  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 122,537(M)  
 Analytical Date: 07/10/18 17:26  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/09/18 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	0.564	J	ng/l	2.00	0.131	1
Perfluoropentanoic Acid (PFPeA)	0.504	J	ng/l	2.00	0.086	1
Perfluorobutanesulfonic Acid (PFBS)	0.140	J	ng/l	2.00	0.110	1
Perfluorohexanoic Acid (PFHxA)	0.468	J	ng/l	2.00	0.126	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092	1
Perfluorohexanesulfonic Acid (PFHxS)	0.424	J	ng/l	2.00	0.108	1
Perfluorooctanoic Acid (PFOA)	1.04	J	ng/l	2.00	0.050	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	4.56		ng/l	2.00	0.194	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155	1
Perfluorononanoic Acid (PFNA)	0.248	J	ng/l	2.00	0.101	1
Perfluorooctanesulfonic Acid (PFOS)	4.00		ng/l	2.00	0.112	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.090	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072	1

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**SAMPLE RESULTS**

Lab ID: L1824924-09

Date Collected: 06/28/18 11:05

Client ID: MW-4S

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE., E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	120		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	91		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	122		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	100		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	101		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	27	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	153	Q	50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	88		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		50-150



Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)  
 Analytical Date: 07/03/18 16:57  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/02/18 10:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02 Batch: WG1131820-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	0.112	J	ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.236	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	0.156	J	ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)  
 Analytical Date: 07/03/18 16:57  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/02/18 10:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02 Batch: WG1131820-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	113		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	132		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	110		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	101		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	108		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	104		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	90		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	106		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	89		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	100		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	4	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	98		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	92		50-150

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
 Analytical Date: 07/06/18 09:56  
 Analyst: TJ

Extraction Method: EPA 3510C  
 Extraction Date: 07/05/18 19:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01,09 Batch: WG1132859-1					
1,4-Dioxane	ND		ng/l	150	75.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)  
 Analytical Date: 07/10/18 14:24  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/09/18 09:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 09 Batch: WG1133643-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.131
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.086
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.110
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.126
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.092
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.108
Perfluorooctanoic Acid (PFOA)	0.176	J	ng/l	2.00	0.050
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.155
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.101
Perfluorooctanesulfonic Acid (PFOS)	0.120	J	ng/l	2.00	0.112
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.190
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.191
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.222
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.227
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.092
Perfluorotridecanoic Acid (PFTTrDA)	ND		ng/l	2.00	0.090
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.072

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 122,537(M)  
 Analytical Date: 07/10/18 14:24  
 Analyst: AJ

Extraction Method: EPA 537  
 Extraction Date: 07/09/18 09:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 09 Batch: WG1133643-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	124		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	94		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	104		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	111		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	95		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	41	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	95		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	108		50-150

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1824924

Report Date: 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 Batch: WG1131820-2 WG1131820-3								
Perfluorobutanoic Acid (PFBA)	104		103		50-150	1		30
Perfluoropentanoic Acid (PFPeA)	107		104		50-150	3		30
Perfluorobutanesulfonic Acid (PFBS)	111		107		50-150	4		30
Perfluorohexanoic Acid (PFHxA)	113		112		50-150	1		30
Perfluoroheptanoic Acid (PFHpA)	110		102		50-150	8		30
Perfluorohexanesulfonic Acid (PFHxS)	112		105		50-150	6		30
Perfluorooctanoic Acid (PFOA)	106		110		50-150	4		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	122		121		50-150	1		30
Perfluoroheptanesulfonic Acid (PFHpS)	118		109		50-150	8		30
Perfluorononanoic Acid (PFNA)	111		115		50-150	4		30
Perfluorooctanesulfonic Acid (PFOS)	99		110		50-150	11		30
Perfluorodecanoic Acid (PFDA)	124		123		50-150	1		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	99		94		50-150	5		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	102		104		50-150	2		30
Perfluoroundecanoic Acid (PFUnA)	79		93		50-150	16		30
Perfluorodecanesulfonic Acid (PFDS)	62		88		50-150	35	Q	30
Perfluorooctanesulfonamide (FOSA)	88		91		50-150	3		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	95		101		50-150	6		30
Perfluorododecanoic Acid (PFDoA)	102		105		50-150	3		30
Perfluorotridecanoic Acid (PFTTrDA)	85		85		50-150	0		30
Perfluorotetradecanoic Acid (PFTA)	114		109		50-150	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 Batch: WG1131820-2 WG1131820-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	114		105		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	134		126		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	111		108		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	99		86		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94		88		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	118		115		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	104		94		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	109		142		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	111		97		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109		109		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	100		100		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	113		126		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	119		142		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		99		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6	Q	10	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	174	Q	168	Q	50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		99		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	109		105		50-150

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01,09 Batch: WG1132859-2 WG1132859-3								
1,4-Dioxane	116		119		40-140	3		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,4-Dioxane-d8	24		21		15-110



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1824924

**Report Date:** 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 09 Batch: WG1133643-2 WG1133643-3								
Perfluorobutanoic Acid (PFBA)	101		103		50-150	2		30
Perfluoropentanoic Acid (PFPeA)	105		109		50-150	4		30
Perfluorobutanesulfonic Acid (PFBS)	107		110		50-150	3		30
Perfluorohexanoic Acid (PFHxA)	108		114		50-150	5		30
Perfluoroheptanoic Acid (PFHpA)	97		102		50-150	5		30
Perfluorohexanesulfonic Acid (PFHxS)	112		120		50-150	7		30
Perfluorooctanoic Acid (PFOA)	103		102		50-150	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	112		110		50-150	2		30
Perfluoroheptanesulfonic Acid (PFHpS)	108		116		50-150	7		30
Perfluorononanoic Acid (PFNA)	110		115		50-150	4		30
Perfluorooctanesulfonic Acid (PFOS)	103		98		50-150	5		30
Perfluorodecanoic Acid (PFDA)	103		108		50-150	5		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	113		93		50-150	19		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	100		117		50-150	16		30
Perfluoroundecanoic Acid (PFUnA)	108		108		50-150	0		30
Perfluorodecanesulfonic Acid (PFDS)	85		85		50-150	0		30
Perfluorooctanesulfonamide (FOSA)	95		101		50-150	6		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	91		113		50-150	22		30
Perfluorododecanoic Acid (PFDoA)	92		105		50-150	13		30
Perfluorotridecanoic Acid (PFTTrDA)	99		97		50-150	2		30
Perfluorotetradecanoic Acid (PFTA)	95		90		50-150	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: MIN MAN CLEANERS

Lab Number: L1824924

Project Number: MANID 16-01

Report Date: 07/11/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 09 Batch: WG1133643-2 WG1133643-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	96		96		50-150
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	118		119		50-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		97		50-150
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		91		50-150
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	92		89		50-150
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		99		50-150
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		97		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	110		119		50-150
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		96		50-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		94		50-150
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	93		92		50-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83		106		50-150
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	108		110		50-150
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		108		50-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	35	Q	30	Q	50-150
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	110		123		50-150
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	107		99		50-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	102		117		50-150

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1824924-01A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-01B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-01C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-01D	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1824924-01E	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1824924-02A	Plastic 250ml Trizma preserved	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1824924-02B	Plastic 250ml Trizma preserved	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1824924-02C	Plastic 250ml Trizma preserved	A	NA		3.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1824924-03A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-03B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-03C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-04A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-04B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-04C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-05A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-05B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-05C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-06A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-06B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-06C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-07A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-07B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-07C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

Serial\_No:07111815:49  
**Lab Number:** L1824924  
**Report Date:** 07/11/18

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1824924-08A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-08B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-08C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-09A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-09B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-09C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-09D	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1824924-09E	Amber 500ml unpreserved	A	7	7	3.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1824924-09F	Plastic 250ml Trizma preserved	A	N/A	N/A	3.0	Y	Absent		A2-NY-537-ISOTOPE(14),HOLD-METAL(180)
L1824924-09G	Plastic 250ml Trizma preserved	A	N/A	N/A	3.0	Y	Absent		HOLD-METAL(180)
L1824924-09H	Plastic 250ml Trizma preserved	A	N/A	N/A	3.0	Y	Absent		HOLD-METAL(180)
L1824924-10A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-10B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-10C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-11A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-11B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-11C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-12A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-12B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-12C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-13A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-13B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-13C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-14A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-14B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-14C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-15A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-15B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

Serial\_No:07111815:49  
**Lab Number:** L1824924  
**Report Date:** 07/11/18

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1824924-15C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-16A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-16B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-16C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-17A	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-17B	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)
L1824924-17C	Vial HCl preserved	A	NA		3.0	Y	Absent		NYTCL-8260(14)

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1824924**Project Number:** MANID 16-01**Report Date:** 07/11/18**Data Qualifiers**

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format:* DU Report with 'J' Qualifiers

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.





## Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

### Westborough Facility

**EPA 624:** m/p-xylene, o-xylene

**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 300:** DW: Bromide

**EPA 6860:** SCM: Perchlorate

**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation

**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,**

**SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522.**

#### Non-Potable Water


**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 2		Date Rec'd in Lab 6/30/18		ALPHA Job # L1824924	
		<b>Project Information</b> Project Name: <u>Min Man Cleaners</u> Project Location: <u>89 Ocean Ave E. Rockaway NY</u> Project # <u>Dan P 16-01</u> (Use Project name as Project #) <input checked="" type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input checked="" type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO #			
<b>Client Information</b> Client: <u>JR Holzmacher</u> Address: <u>7555 Veterans Hwy Suite 11779</u> <u>Rockaway NY 11779</u> Phone: <u>671 274 2220</u> Fax: <u>671 274 2221</u> Email: <u>AJ@holzmacher.com</u>		<b>Project Manager:</b> <u>AJ Schell</u> <b>ALPHAQuote #:</b> <b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <u>Cat B</u> <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/>						<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:						8260 1,4 dioxane 8205 SIM Full PFAS TAL 537 method		Total Bottles	
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date    Time		Sample Matrix		Sampler's Initials	
24924-01		BB-1 DB-1		6/28/18 1043		GW		N	
24924-02		Field Blank		6/28/18 0935		I		N	
24924-03		MW-1S		6/28/18 1334		I		N	
24924-04		MW-1D		6/28/18 1345		I		N	
24924-05		MW-2S		6/28/18 1253		I		N	
24924-06		MW-2D		6/28/18 1313		I		N	
24924-07		MW-3S		6/28/18 1147		I		N	
24924-08		MW-3D		6/28/18 1210		I		N	
24924-09		MW-4S		6/28/18 1105		I		N	
24924-10		MW-4D		6/28/18 1125		I		N	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube Q = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type G A P		Preservation B A O	
Relinquished By: <u>AJ Schell</u> <u>6/29/18</u>		Date/Time <u>6/29/18 13:57</u>		Received By: <u>[Signature]</u> <u>6/29/18 15:57</u>		Date/Time <u>6/29/18 20:22</u>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	



2 of 2

6/30/18

ALPHA JONES  
L429020

Semi-Annual Sampling Report  
NYSDEC Site Number: C130157  
Minute Man Cleaners  
89 Ocean Avenue  
East Rockaway, Nassau County, New York 11518  
July 2018

## **Appendix B – Effluent Soil Vapor Analytical Laboratory Report**



## ANALYTICAL REPORT

Lab Number:	L1825021
Client:	J.R. Holzmacher P.E., LLC 3555 Veterans Memorial Highway Suite A Ronkonkoma, NY 11779
ATTN:	AJ Scheff
Phone:	(631) 234-2220
Project Name:	MIN MAN CLEANERS
Project Number:	MANID 16-01
Report Date:	07/09/18

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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320 Forbes Boulevard, Mansfield, MA 02048-1806  
508-822-9300 (Fax) 508-822-3288 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1825021-01	EFFLUENT	SOIL_VAPOR	89 OCEAN AVE, E. ROCKAWAY, NY	06/28/18 12:26	06/29/18

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

### Case Narrative (continued)

#### Volatile Organics in Air

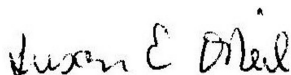
Canisters were released from the laboratory on June 27, 2018. The canister certification results are provided as an addendum.

L1825021-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1133244-3 LCS recovery for benzyl chloride (137%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Susan O'Neil

Title: Technical Director/Representative

Date: 07/09/18



**AIR**

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1825021**Project Number:** MANID 16-01**Report Date:** 07/09/18**SAMPLE RESULTS**

Lab ID: L1825021-01 D  
 Client ID: EFFLUENT  
 Sample Location: 89 OCEAN AVE, E. ROCKAWAY, NY

Date Collected: 06/28/18 12:26  
 Date Received: 06/29/18  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 07/07/18 06:07  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.400	0.250	--	1.98	1.24	--		1.25
Chloromethane	0.310	0.250	--	0.640	0.516	--		1.25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.250	--	ND	1.75	--		1.25
Vinyl chloride	ND	0.250	--	ND	0.639	--		1.25
1,3-Butadiene	ND	0.250	--	ND	0.553	--		1.25
Bromomethane	ND	0.250	--	ND	0.971	--		1.25
Chloroethane	ND	0.250	--	ND	0.660	--		1.25
Ethyl Alcohol	11.5	6.25	--	21.7	11.8	--		1.25
Vinyl bromide	ND	0.250	--	ND	1.09	--		1.25
Acetone	1.61	1.25	--	3.82	2.97	--		1.25
Trichlorofluoromethane	ND	0.250	--	ND	1.40	--		1.25
iso-Propyl Alcohol	ND	0.625	--	ND	1.54	--		1.25
1,1-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
tert-Butyl Alcohol	ND	0.625	--	ND	1.89	--		1.25
Methylene chloride	ND	0.625	--	ND	2.17	--		1.25
3-Chloropropene	ND	0.250	--	ND	0.783	--		1.25
Carbon disulfide	ND	0.250	--	ND	0.779	--		1.25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.250	--	ND	1.92	--		1.25
trans-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--		1.25
1,1-Dichloroethane	ND	0.250	--	ND	1.01	--		1.25
Methyl tert butyl ether	ND	0.250	--	ND	0.901	--		1.25
2-Butanone	ND	0.625	--	ND	1.84	--		1.25
cis-1,2-Dichloroethene	0.449	0.250	--	1.78	0.991	--		1.25



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1825021**Project Number:** MANID 16-01**Report Date:** 07/09/18**SAMPLE RESULTS**

Lab ID: L1825021-01 D

Date Collected: 06/28/18 12:26

Client ID: EFFLUENT

Date Received: 06/29/18

Sample Location: 89 OCEAN AVE, E. ROCKAWAY, NY

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	2.24	0.625	--	8.07	2.25	--		1.25
Chloroform	ND	0.250	--	ND	1.22	--		1.25
Tetrahydrofuran	ND	0.625	--	ND	1.84	--		1.25
1,2-Dichloroethane	ND	0.250	--	ND	1.01	--		1.25
n-Hexane	ND	0.250	--	ND	0.881	--		1.25
1,1,1-Trichloroethane	ND	0.250	--	ND	1.36	--		1.25
Benzene	ND	0.250	--	ND	0.799	--		1.25
Carbon tetrachloride	ND	0.250	--	ND	1.57	--		1.25
Cyclohexane	ND	0.250	--	ND	0.861	--		1.25
1,2-Dichloropropane	ND	0.250	--	ND	1.16	--		1.25
Bromodichloromethane	ND	0.250	--	ND	1.67	--		1.25
1,4-Dioxane	ND	0.250	--	ND	0.901	--		1.25
Trichloroethene	0.306	0.250	--	1.64	1.34	--		1.25
2,2,4-Trimethylpentane	ND	0.250	--	ND	1.17	--		1.25
Heptane	ND	0.250	--	ND	1.02	--		1.25
cis-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
4-Methyl-2-pentanone	ND	0.625	--	ND	2.56	--		1.25
trans-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--		1.25
1,1,2-Trichloroethane	ND	0.250	--	ND	1.36	--		1.25
Toluene	ND	0.250	--	ND	0.942	--		1.25
2-Hexanone	ND	0.250	--	ND	1.02	--		1.25
Dibromochloromethane	ND	0.250	--	ND	2.13	--		1.25
1,2-Dibromoethane	ND	0.250	--	ND	1.92	--		1.25
Tetrachloroethene	107	0.250	--	726	1.70	--		1.25
Chlorobenzene	ND	0.250	--	ND	1.15	--		1.25
Ethylbenzene	ND	0.250	--	ND	1.09	--		1.25



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1825021**Project Number:** MANID 16-01**Report Date:** 07/09/18**SAMPLE RESULTS**

Lab ID: L1825021-01 D

Client ID: EFFLUENT

Sample Location: 89 OCEAN AVE, E. ROCKAWAY, NY

Date Collected: 06/28/18 12:26

Date Received: 06/29/18

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	0.500	--	ND	2.17	--		1.25
Bromoform	ND	0.250	--	ND	2.58	--		1.25
Styrene	ND	0.250	--	ND	1.06	--		1.25
1,1,2,2-Tetrachloroethane	ND	0.250	--	ND	1.72	--		1.25
o-Xylene	ND	0.250	--	ND	1.09	--		1.25
4-Ethyltoluene	ND	0.250	--	ND	1.23	--		1.25
1,3,5-Trimethylbenzene	ND	0.250	--	ND	1.23	--		1.25
1,2,4-Trimethylbenzene	ND	0.250	--	ND	1.23	--		1.25
Benzyl chloride	ND	0.250	--	ND	1.29	--		1.25
1,3-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,4-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2-Dichlorobenzene	ND	0.250	--	ND	1.50	--		1.25
1,2,4-Trichlorobenzene	ND	0.250	--	ND	1.86	--		1.25
Hexachlorobutadiene	ND	0.250	--	ND	2.67	--		1.25

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	89		60-140



Project Name: MIN MAN CLEANERS

Lab Number: L1825021

Project Number: MANID 16-01

Report Date: 07/09/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/06/18 16:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1133244-4								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--		1



**Project Name:** MIN MAN CLEANERS**Lab Number:** L1825021**Project Number:** MANID 16-01**Report Date:** 07/09/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/06/18 16:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1133244-4								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1



Project Name: MIN MAN CLEANERS

Lab Number: L1825021

Project Number: MANID 16-01

Report Date: 07/09/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/06/18 16:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1133244-4								
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1



Project Name: MIN MAN CLEANERS

Lab Number: L1825021

Project Number: MANID 16-01

Report Date: 07/09/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/06/18 16:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1133244-4								
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane (C10)	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane (C12)	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1





Project Name: MIN MAN CLEANERS

Lab Number: L1825021

Project Number: MANID 16-01

Report Date: 07/09/18

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 07/06/18 16:55

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1133244-4								
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1825021

**Report Date:** 07/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1133244-3								
Chlorodifluoromethane	85		-		70-130	-		
Propylene	88		-		70-130	-		
Propane	77		-		70-130	-		
Dichlorodifluoromethane	96		-		70-130	-		
Chloromethane	92		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	102		-		70-130	-		
Methanol	80		-		70-130	-		
Vinyl chloride	95		-		70-130	-		
1,3-Butadiene	103		-		70-130	-		
Butane	83		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	94		-		70-130	-		
Ethyl Alcohol	88		-		70-130	-		
Dichlorofluoromethane	116		-		70-130	-		
Vinyl bromide	105		-		70-130	-		
Acrolein	88		-		70-130	-		
Acetone	76		-		70-130	-		
Acetonitrile	85		-		70-130	-		
Trichlorofluoromethane	96		-		70-130	-		
iso-Propyl Alcohol	84		-		70-130	-		
Acrylonitrile	95		-		70-130	-		
Pentane	86		-		70-130	-		
Ethyl ether	90		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1825021

**Report Date:** 07/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1133244-3								
1,1-Dichloroethene	96		-		70-130	-		
tert-Butyl Alcohol	95		-		70-130	-		
Methylene chloride	101		-		70-130	-		
3-Chloropropene	102		-		70-130	-		
Carbon disulfide	101		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	105		-		70-130	-		
trans-1,2-Dichloroethene	100		-		70-130	-		
1,1-Dichloroethane	91		-		70-130	-		
Methyl tert butyl ether	99		-		70-130	-		
Vinyl acetate	90		-		70-130	-		
2-Butanone	82		-		70-130	-		
cis-1,2-Dichloroethene	84		-		70-130	-		
Ethyl Acetate	100		-		70-130	-		
Chloroform	100		-		70-130	-		
Tetrahydrofuran	100		-		70-130	-		
2,2-Dichloropropane	98		-		70-130	-		
1,2-Dichloroethane	94		-		70-130	-		
n-Hexane	92		-		70-130	-		
Isopropyl Ether	89		-		70-130	-		
Ethyl-Tert-Butyl-Ether	87		-		70-130	-		
1,1,1-Trichloroethane	101		-		70-130	-		
1,1-Dichloropropene	94		-		70-130	-		
Benzene	91		-		70-130	-		

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1825021

**Report Date:** 07/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1133244-3								
Carbon tetrachloride	105		-		70-130	-		
Cyclohexane	92		-		70-130	-		
Tertiary-Amyl Methyl Ether	96		-		70-130	-		
Dibromomethane	86		-		70-130	-		
1,2-Dichloropropane	90		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	103		-		70-130	-		
Trichloroethene	98		-		70-130	-		
2,2,4-Trimethylpentane	92		-		70-130	-		
Methyl Methacrylate	78		-		70-130	-		
Heptane	97		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130	-		
trans-1,3-Dichloropropene	89		-		70-130	-		
1,1,2-Trichloroethane	92		-		70-130	-		
Toluene	97		-		70-130	-		
1,3-Dichloropropane	93		-		70-130	-		
2-Hexanone	104		-		70-130	-		
Dibromochloromethane	114		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		
Butyl Acetate	96		-		70-130	-		
Octane	88		-		70-130	-		
Tetrachloroethene	99		-		70-130	-		

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1825021

Report Date: 07/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1133244-3								
1,1,1,2-Tetrachloroethane	100		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	97		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
Bromoform	118		-		70-130	-		
Styrene	97		-		70-130	-		
1,1,2,2-Tetrachloroethane	102		-		70-130	-		
o-Xylene	102		-		70-130	-		
1,2,3-Trichloropropane	94		-		70-130	-		
Nonane (C9)	90		-		70-130	-		
Isopropylbenzene	98		-		70-130	-		
Bromobenzene	92		-		70-130	-		
o-Chlorotoluene	94		-		70-130	-		
n-Propylbenzene	96		-		70-130	-		
p-Chlorotoluene	95		-		70-130	-		
4-Ethyltoluene	106		-		70-130	-		
1,3,5-Trimethylbenzene	106		-		70-130	-		
tert-Butylbenzene	103		-		70-130	-		
1,2,4-Trimethylbenzene	112		-		70-130	-		
Decane (C10)	95		-		70-130	-		
Benzyl chloride	137	Q	-		70-130	-		
1,3-Dichlorobenzene	107		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** MIN MAN CLEANERS

**Project Number:** MANID 16-01

**Lab Number:** L1825021

**Report Date:** 07/09/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1133244-3								
sec-Butylbenzene	101		-		70-130	-		
p-Isopropyltoluene	97		-		70-130	-		
1,2-Dichlorobenzene	106		-		70-130	-		
n-Butylbenzene	104		-		70-130	-		
1,2-Dibromo-3-chloropropane	107		-		70-130	-		
Undecane	94		-		70-130	-		
Dodecane (C12)	92		-		70-130	-		
1,2,4-Trichlorobenzene	108		-		70-130	-		
Naphthalene	97		-		70-130	-		
1,2,3-Trichlorobenzene	99		-		70-130	-		
Hexachlorobutadiene	108		-		70-130	-		

# Lab Duplicate Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1825021

Report Date: 07/09/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1133244-5 QC Sample: L1825017-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.418	0.428	ppbV	2		25
Chloromethane	0.509	0.498	ppbV	2		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	5.00	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	15.3	17.0	ppbV	11		25
Trichlorofluoromethane	ND	0.200	ppbV	NC		25
iso-Propyl Alcohol	1.84	1.78	ppbV	3		25
tert-Butyl Alcohol	0.761	0.813	ppbV	7		25
Methylene chloride	2.05	2.02	ppbV	1		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	1.22	1.23	ppbV	1		25
Ethyl Acetate	ND	ND	ppbV	NC		25

# Lab Duplicate Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1825021

Report Date: 07/09/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1133244-5 QC Sample: L1825017-01 Client ID: DUP Sample						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	1.84	1.84	ppbV	0		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	0.276	0.268	ppbV	3		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	0.543	0.543	ppbV	0		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	1.10	1.11	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25



# Lab Duplicate Analysis

## Batch Quality Control

Project Name: MIN MAN CLEANERS

Project Number: MANID 16-01

Lab Number: L1825021

Report Date: 07/09/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1133244-5 QC Sample: L1825017-01 Client ID: DUP Sample						
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

**Project Name:** MIN MAN CLEANERS

Serial\_No:07091812:15  
**Lab Number:** L1825021

**Project Number:** MANID 16-01

**Report Date:** 07/09/18

**Canister and Flow Controller Information**

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1825021-01	EFFLUENT	0605	SV200	06/27/18	268512		-	-	-	Pass	214	211	1
L1825021-01	EFFLUENT	373	2.7L Can	06/27/18	268512	L1823680-01	Pass	-29.9	-4.1	-	-	-	-

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 06/22/18 16:29  
**Analyst:** RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1



**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1823680**Project Number:** CANISTER QC BAT**Report Date:** 07/09/18**Air Canister Certification Results**

Lab ID: L1823680-01

Date Collected: 06/21/18 16:00

Client ID: CAN 348 SHELF 5

Date Received: 06/22/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	79		60-140

**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15-SIM  
**Analytical Date:** 06/22/18 16:29  
**Analyst:** RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1





**Project Name:** BATCH CANISTER CERTIFICATION  
**Project Number:** CANISTER QC BAT

**Lab Number:** L1823680  
**Report Date:** 07/09/18

### Air Canister Certification Results

**Lab ID:** L1823680-01  
**Client ID:** CAN 348 SHELF 5  
**Sample Location:**

**Date Collected:** 06/21/18 16:00  
**Date Received:** 06/22/18  
**Field Prep:** Not Specified

**Sample Depth:**

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



**Project Name:** BATCH CANISTER CERTIFICATION**Lab Number:** L1823680**Project Number:** CANISTER QC BAT**Report Date:** 07/09/18**Air Canister Certification Results**

Lab ID: L1823680-01

Date Collected: 06/21/18 16:00

Client ID: CAN 348 SHELF 5

Date Received: 06/22/18

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140

**Project Name:** MIN MAN CLEANERS**Lab Number:** L1825021**Project Number:** MANID 16-01**Report Date:** 07/09/18**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information****Cooler**                      **Custody Seal**

N/A                              Absent

**Container Information****Container ID**    **Container Type**

L1825021-01A    Canister - 2.7 Liter

<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
N/A	NA			Y	Absent		TO15-LL(30)

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

**Report Format:** Data Usability Report



**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

#### Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

## REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **11**

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**Certification Information****The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 300:** DW: Bromide**EPA 6860:** SCM: Perchlorate**EPA 9010:** NPW and SCM: Amenable Cyanide Distillation**SM4500:** NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E,****SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.****EPA 624:** Volatile Halocarbons & Aromatics,**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.







Semi-Annual Sampling Report  
NYSDEC Site Number: C130157  
Minute Man Cleaners  
89 Ocean Avenue  
East Rockaway, Nassau County, New York 11518  
July 2018

## **Appendix C – Tide Chart: Monitoring Well Samples**

## APPENDIX C

### Tide Chart: Monitoring Well Samples

Monitoring Well	12/28/16	Time	06/28/18	Time
MW-1S	2.7 ft	13:43	1.5 ft	13:34
MW-1D	3.0 ft	14:06	1.4 ft	13:45
MW-2S	2.0 ft	12:59	1.9ft	12:53
MW-2D	0.5 ft	11:34	1.6 ft	13:13
MW-3S	1.5 ft	12:13	2.8 ft	11:47
MW-3D	1.7 ft	12:32	2.5 ft	12:10
MW-4S	0.5 ft	11:27	3.0 ft	11:05
MW-4D	0.6 ft	11:53	2.8 ft	11:25
MW-5S	0.5 ft	10:00	3.8 ft	9:40
MW-5D	0.3 ft	10:26	3.8 ft	9:59
MW-9	0.4 ft	10:43	3.6 ft	10:20
MW-12	1.9 ft	12:48	2.0 ft	12:33
MW-14S	0.7 ft	9:21	3.7 ft	8:53
MW-14D	0.8 ft	8:56	3.7 ft	8:34
MW-14WT	0.6 ft	9:34	3.8 ft	9:15
DB-1	0.5 ft	11:06	3.6 ft	10:43

[illegible]

Semi-Annual Sampling Report  
NYSDEC Site Number: C130157  
Minute Man Cleaners  
89 Ocean Avenue  
East Rockaway, Nassau County, New York 11518  
July 2018

## **Appendix D - Data Usability Summary Report – DUSR Data Validation Summary**

**DATA USABILITY SUMMARY REPORT – DUSR  
DATA VALIDATION SUMMARY**

**VOLATILES BY GC/MS METHOD 8260C  
SELECTIVE ION MONITORING (SIM) 1,4-DIOXANE SEMIVOLATILES  
BY GC/MS METHOD 8270D**

**AND**

**FLUORINATED ALKYL ACIDS BY ISOTOPE DIUTION  
BY LIQUID CHROMATOGRAPHY/TANDEM MASS SPECTROMETRY (LC/MS/MS)  
BY MODIFIED EPA METHOD 537**

**For Groundwater Samples Collected**

**June 28, 2018**

**Minuteman Cleaners**

**From 89 Ocean Avenue, East Rockaway, New York**

**Collected by J.R. Holzmacher P.E., LLC**

**Project # ManID 16-01**

**SAMPLE DELIVERY GROUP NUMBER:**

**L1824924**

**ALPHA ANALYTICAL - (ELAP #11148)**

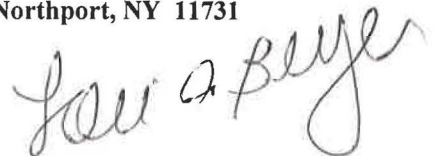
**SUBMITTED TO:**

**Ms. Patricia Zalak  
J.R. Holzmacher P.E., LLC  
3555 Veterans Memorial Highway, Suite A  
Ronkonkoma, NY 11779**

**August 06, 2018**

**PREPARED BY:**

**Lori A. Beyer/President  
L.A.B. Validation Corp.  
14 West Point Drive  
East Northport, NY 11731**



**Minuteman Cleaners; 89 Ocean Avenue, East Rockaway, New York – Data Usability Summary**  
Report (Data Validation): June 2018 Groundwater Sampling Event; - Volatiles, 1,4-Dioxane SIM  
Semivolatiles and Fluorinated Alkyl Substances by EPA Modified Method 537.

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**APPENDICES:**

- A. Chain of Custody Documents
- B. Case Narrative
- C. Validated Form I's with Qualifications

**Introduction:**

A validation was performed on groundwater samples and the associated quality control sample (Field Blank) for organic analysis for samples collected under chain of custody documentation by J.R. Holzmacher and submitted to Alpha Analytical for subsequent analysis. This report contains the laboratory and validation results for the field samples itemized below. Analysis was performed in accordance with requested tests per the chain of custody documents by Alpha, utilizing SW846/EPA Methods for the associated analytical methodologies employed. The analytical testing for groundwater samples consisted of Volatile Organics, 1,4-Dioxane (SIM) Semivolatile Organics and PFC's by EPA Method 537.

The data was evaluated in accordance with EPA Region II National Functional Guidelines for Organic and Inorganic Data Review and EPA Region II SOPs for 8270 and in conjunction with the analytical methodologies for which the samples were analyzed, where applicable and relevant.

Sample ID	Lab ID	Matrix	Analysis
DB-1	L1824924-01	Groundwater	VOA, 1,4-Dioxane
Field Blank	L1824924-02	Aqueous	PFC's
MW-1S	L1824924-03	Groundwater	VOA
MW-1D	L1824924-04	Groundwater	VOA
MW-2S	L1824924-05	Groundwater	VOA
MW-2D	L1824924-06	Groundwater	VOA
MW-3S	L1824924-07	Groundwater	VOA
MW-3D	L1824924-08	Groundwater	VOA
MW-4S	L1824924-09	Groundwater	VOA, 1,4-Dioxane, PFC's
MW-4D	L1824924-10	Groundwater	VOA
MW-5S	L1824924-11	Groundwater	VOA
MW-5D	L1824924-12	Groundwater	VOA
MW-9	L1824924-13	Groundwater	VOA
MW-12	L1824924-14	Groundwater	VOA
MW-14S	L1824924-15	Groundwater	VOA
MW-14D	L1824924-16	Groundwater	VOA
MW-14WT	L1824924-17	Groundwater	VOA

**Data Qualifier Definitions:**

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

- U** - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J** - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R** - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- N** - The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ** - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate quantity.
- J+** - The result is an estimated quantity, but the result may be biased high.
- J-** - The result is an estimated quantity, but the result may be biased low.
- D** - Analyte concentration is from diluted analysis.

**Sample Receipt:**

The Chain of Custody document indicates that the samples were received at Alpha Analytical via laboratory courier upon completion of the sampling event on June 29, 2018. Sample login notes were generated. The cooler temperature for the aqueous sample receipts were recorded upon receipt at Alpha and determined to be acceptable (<6.0 degrees C) for the sample cooler. The actual temperature 3.0 degrees C is recorded on the sample receipt checklist provided in Appendix B of this report.

No problems and/or discrepancies were noted, consequently, the integrity of the groundwater samples has been assumed to be good.

The Form I's and EQUIS deliverables include all usable (qualified) and unusable (rejected) results for the samples identified above. The validated spreadsheets and Form I's summarize the detailed narrative section of the report.

**NOTE:**

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

**1.0 Volatile Organics by GC/MS SW846 Method 8260C**

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The Volatile results are valid and usable except for 1,4-Dioxane non-detects in all samples which were rejected, "R" due to low calibration response as noted within the following text:

**1.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples pertaining to this SDG were performed within the Method required holding times as well as the technical holding times for data**



**validation of 14 days from collection to analysis for HCL preserved vials. No data validation qualifiers were required based upon holding time.**

## **1.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes.

**Surrogate recoveries (%R) for Dibromofluoromethane, 1,2-Dichloroethane-d4, Toluene-d8 and 4-Bromofluorobenzene were found to be within acceptable limits for surrogate compounds for all analyses pertaining to this SDG.**

## **1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

**LCS/LCS Duplicate was performed in lieu of MS/MSD.**

**The National Functional Guidelines and EPA Region 2 SOPs state that “No qualifications to the data is necessary based on MS data alone.”**

## **1.4 Laboratory Control Sample/Blank Spikes**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/LCS Duplicates were analyzed for each sequence. Recovery values were acceptable for all spiked analytes except for:**

**LCS Duplicate associated with DB-1, MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S and MW-4D yielded high Chloroethane (140%). This analyte was not detected in any of the associated field samples. High recovery does not support any potential loss of detection and/or result bias and therefore sample results are not impacted.**

## 1.5 Blank Contamination

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>= CRQL* and <2x the CRQL**	No qualification required
	>CRQL*	<= CRQL*	Report CRQL value with a U
		>=CRQL* and <= blank concentration	Report blank value for sample concentration with a U
		>= CRQL* and > blank concentration	No qualification required
	=CRQL*	<= CRQL*	Report CRQL value with a U
		>CRQL*	No qualification required
	Gross Contamination**	Detects	Report blank value for sample concentration with a U

\*2x the CRQL for methylene chloride, 2-butanone and acetone.

\*\*4x the CRQL for methylene chloride, 2-butanone, and acetone

\*\*\*Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

- A) **Method Blank Contamination:**  
No target analytes were detected in the method blanks associated sample analysis.
- B) **Field Blank Contamination:**  
Field Blank was not submitted for Volatile analysis.
- C) **Trip Blank Contamination:**  
Trip Blank was not submitted.

*\*Acetone detection in MW-9 (2.2 ug/L) and MW-14WT (4.5 ug/L) could not be negated due to lack of presence in the corresponding method blanks. The end user should use caution when making decisions based on common laboratory contaminants.*

#### **1.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

**Instrument performance was generated within acceptable limits and frequency for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.**

#### **1.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial calibration verification met acceptance criteria.

##### **A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone. Validation criteria allows response factor to be  $\geq 0.01$  for poor responders (Acetone, MEK, Carbon Disulfide, Chloroethane, Chloromethane, Cyclohexane, 1,2-Dibromoethane, Dichlorodifluoromethane, cis-1,2-Dichloroethene, 1,2-Dichloropropane, 1,2-Dibromo-3-chloropropane, Isopropylbenzene, Methyl Acetate,

Methylene Chloride, Methylcyclohexane, MTBE, trans-1,2-Dichloroethene, 4-Methyl-2-Pentanone, 2-Hexanone, Trichlorofluoromethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane.

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ) and ( $\geq 0.01$  for poor responders) and minimum response criteria in Table 4 of Method 8260C, for the initial and continuing calibrations for all reported analytes except for 1,4-Dioxane (0.001) associated with all initial and continuing calibrations. Non-detects for this compound in all samples have been rejected, "R."**

**B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):**

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $<20\%$  and %D must be  $<20\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $>20\%$  and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Closing CCV must meet 30% criteria. Poor responders must be  $\leq 40\%$ . Analytes detected in the sample will be qualified as estimated, "J+" (biased high). All non-detects for that compound in the corresponding samples will be rejected, "R". Method 8260C allows for a minimum response factor of 0.1 for Acetone and 2-Butanone. Validation criteria allows an RRF of  $>0.010$  without qualifications for these analytes.

\*Method 8260C allows for several analytes to be outside requirements due to the large number of compounds.

**Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (20%) and (40% for poor responders) for all reported compounds.**

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (25%) and (40% for poor responders) for all reported compounds except for:

**CCAL VOA122 7/8/18 – Bromomethane – 34%; “UJ” non-detects in MW-5D, MW-9, MW-12, MW-14S, MW-14D, MW-14WT and MW-5S.**

**CCAL VOA105 7/8/18 – Bromomethane – 33.0%, Chlorodibromomethane – 27.6%, Bromoform – 31.0% and Naphthalene – 25.2%; “UJ” non-detects in DB-1, MW-1S, MW-1D, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S and MW-4D. Positive detections for Chlorodibromomethane and Bromoform have been qualified, “J” in DB-1, MW-2S, MW-2D, MW-3S, MW-3D, MW-4S and MW-4S.**

### **1.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, “J”, and all non-detects as “UJ”, or “R” if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All samples were spiked with the internal standards Fluorobenzene, Chlorobenzene-d5 and 1,4-Dichlorobenzene-d4 prior to sample analysis. The area responses and retention time of each internal standard met QC criteria in all samples associated with this SDG.**

### **1.9 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples.**

**An acceptable RPD is 50% as documented in EPA Region 2 SOP HW33. Professional judgment is utilized for analytes that demonstrate high percent difference.**

**A Field duplicate was not collected for this sampling event.**

#### **1.10 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm 0.06$ RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

**GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.**

#### **1.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis is acceptable. Correct internal standards per SW846, response factors were used to calculate final concentrations.

**As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).**

**All samples were all analyzed undiluted at 10mls except for MW1S which was analyzed at 2.5ml (1:4 dilution) and MW-5S which was analyzed at 4ml (1:2.5 dilution). Raw Tetrachloroethene concentrations were within the upper half of the linear calibration range. Dilution has determined to be acceptable.**

#### **1.12 Overall System Performance**

**Good resolution and chromatographic performance were observed.**

## **2.0 1,4-Dioxane by GCMS SW846 Method 8270D (SIM).**

The following method criteria were reviewed: holding times, SMCs, MS, MSD, LCS, Laboratory Spiked Blanks, Method Blanks, Tunes, Calibrations, Internal Standards, Field Duplicate, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The 1,4-Dioxane results are valid and useable as noted within the following text:

### **2.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**DB-1 and MW-4S were extracted and analyzed within the method required holding times and the technical holding times (7 days from collection) and 40 days from extraction to analysis) required for data validation.**

### **2.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample preparation/extraction to evaluate overall laboratory performance and efficiency of the analytical technique. Additionally, the sample itself may produce effects due to such factors as interferences and high concentrations of analytes. Since the effects of the sample matrix are frequently outside the control of the laboratory and may present relatively unique problems, the evaluation of the data is dependent upon reextraction and/or reanalysis to confirm/negate laboratory error or matrix related problems. Discussion of surrogate recoveries that fell outside (above/below) QC guidelines is itemized below:

**Surrogate 1,4-Dioxane-d8 also recovered within limits (15-100%) for SIM analysis.**

### **2.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate

acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

**MS/MSD analysis was not submitted in the data package.**

**The National Functional Guidelines and EPA Region 2 SOPs state that “No qualifications to the data is necessary based on MS data alone.”**

## **2.4 Laboratory Control Sample/Blank Spikes**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/Blank Spike yielded acceptable recovery value (119%) for 1,4 Dioxane.**

## **2.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Instrument	Detects	Not Detected	No qualification required
	<CRQL	<CRQL	Report CRQL value with a U
		>/= CRQL and <2x the CRQL	No qualification required
	>CRQL	</= CRQL	Report CRQL value with a U
		>/=CRQL and </= blank concentration	Report blank value for sample concentration with a U
		>/= CRQL and > blank concentration	No qualification required
	=CRQL	</= CRQL	Report CRQL value with a U
		>CRQL	No qualification required
	Gross Contamination	Detects	Report blank value for sample concentration with a U

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:



**D) Method Blank Contamination:**

**1,4-Dioxane was not detected in the method blank associated with sample analysis.**

**E) Field Blank Contamination:**

**Field Blank was not required for 1,4-Dioxane.**

**2.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for semivolatile organics is decafluorotriphenylphosphine (DFTPP).

**Instrument performance was generated within acceptable limits and frequency (12 hours) for decafluorotriphenylphosphine (DFTPP) for all analyses.**

**2.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor GC/MS:**

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

**Response factors for 1,4-Dioxane was found to be within acceptable limits ( $\geq 0.05$ ), for the initial (average RRF) and continuing calibrations.**

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be <20% and %D must be <20%. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is >30% and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Due to the large number of analytes in this method, it is expected for some analytes to fall outside acceptance criteria and the calibration is still considered valid.

Acceptable Initial Calibration Verifications were performed.

**Initial Calibrations: The initial calibrations provided and the %RSD were within acceptable limits (20%) at 5.32% for 1,4-Dioxane.**

**Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (20%) for 1,4-Dioxane.**

## **2.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-50% to +100%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 30 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +100%) range of the associated standard, all the positive results for compounds quantitated using

that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 30 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**Samples were spiked with the internal standard 1,4 DCBd4 for SIM analysis. The area responses and retention time of this internal standard met QC criteria in all samples associated with this SDG.**

## **2.9 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Acceptable RPD is 25%. Field Duplicate was not collected for this sampling event.**

## **2.10 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm 0.06$ RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

**GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.**

## **2.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis is acceptable. Correct internal standards per SW846 and response factors were used to calculate final concentrations.

**As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).**

**Groundwater samples were all analyzed undiluted. Samples were extracted by SW846 Method 3510C from an initial volume of 500mls and concentrated to a final volume of 5mls.**

## **2.12 Overall System Performance**

**Good resolution and chromatographic performance were observed.**

## **3.0 PFC's by LC/MS/MS EPA Modified Method 537**

The following method criteria were reviewed: holding times, Surrogates, MS, MSD, LCS/Laboratory Spiked Blanks, Method Blanks, Calibrations, Internal Standards, Field Duplicate, Target Component Identification, Quantitation, Reported Quantitation Limits and Overall System Performance. The PFC results are valid and useable as noted within the following text:

### **3.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**Samples pertaining to this SDG were extracted and performed within the method required holding times of 14 days from collection to extraction and 28 days from extraction to analysis for sample containers preserved with Trizma. No data validation qualifiers were required based upon holding time.**

### **3.2 System Monitoring Compound (Surrogate) Recovery**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specification, qualifications are required to be applied to associated samples and analytes. For EPA Method 537 via Isotope Dilution; eighteen (18) surrogates were utilized.

**Surrogate recoveries (%R) were found to be within acceptable limits for all analyses pertaining to this SDG except for D3-NMEFOSAA which recovered high at 177%, M2-6:2FTS high at 165%, D5-NETFOSAA high at 173% and M8FOSA low at 10% in the Field Blank. Detected target analytes were not within the retention time range of associated surrogates. Sample results are not impacted for the Field Blank based on these outliers. D5-NETFOSAA also recovered above limits at 153% in MW-4S.**

### **3.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

**MS/MSD analyses was not submitted in the data package.**

**The National Functional Guidelines and EPA Region 2 SOPs state that “No qualifications to the data is necessary based on MS data alone.”**

### **3.4 Laboratory Control Sample/Blank Spikes**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

**LCS/Blank Spike was analyzed. Recovery values were acceptable for all spiked compounds. RPD for PFDS (35%) fell outside acceptance limits (30%). Based on professional judgment, no qualifications to the data were made.**

### **3.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations.

The following table was utilized to qualify target analyte results due to contamination. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Instrument	Detects	Not Detected	No qualification required
	<CRQL	<CRQL	Report CRQL value with a U
		>= CRQL and <2x the CRQL	No qualification required
	>CRQL	<= CRQL	Report CRQL value with a U
		>=CRQL and <= blank concentration	Report blank value for sample concentration with a U
		>= CRQL and > blank concentration	No qualification required
	=CRQL	<= CRQL	Report CRQL value with a U
		>CRQL	No qualification required
	Gross Contamination	Detects	Report blank value for sample concentration with a U

Below is a summary of the compounds in the blanks and the associated qualifications that have been applied:

**A) Method Blank Contamination:**

**Low detections (J values) were detected in the method blank associated with the Field Blank as follows:**

**PFOA – 0.236 ng/L**

**PFHxS – 0.112 ng/L**

**PFOS – 0.156 ng/L**

**The laboratory reported concentrations of PFHxS and PFOA were negated, “U” in the Field blank based on laboratory contamination.**

**Low detections (J values) were detected in the method blank associated with MW-4S as follows:**

**PFOA – 0.176 ng/L**

**PFOS - 0.120 ng/**

**MW-4S results were evaluated based on the above criteria. Sample concentrations were determined to be greater than the blank levels and therefore, no qualifications are required. The laboratory reported detections of PFC’s in MW-4S must be considered real.**

**B) Field Blank Contamination:**

**PFOA and PFHxS were negated, “U” due to method blank contamination.**

### 3.6 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can produce acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance. Initial and continuing calibration verifications were acceptable.

#### Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ) for the initial and continuing calibrations for all reported analytes.**

#### Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $< 20\%$  and %D must be  $< 20\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria, non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $> 20\%$  and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 20% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Closing CCV must meet 30% criteria. Acceptable correlation coefficient was observed for target analytes ( $> 0.995$ )

**Initial Calibrations:** The initial calibrations provided and the %RSD were within acceptable limits (20%) for all reported compounds.

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (20%) for all reported compounds.

### **3.7 Internal Standards**

Internal Standards (IS) performance criteria ensure that the LC/MS/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 1 (-50% to +50%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-60 seconds from the associated continuing calibration standard. If the area count is outside the (-50% to +50%) range of the associated standard, all the positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 60 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**All samples were spiked with the internal standards 13C2-PFOA prior to sample analysis. The area responses and retention time of this internal standard met QC criteria in all samples.**

### **3.8 Field Duplicates**

**Field duplicate samples are collected and analyzed as an indication of overall precision. These results are expected to have more variability than laboratory duplicate samples. Acceptable RPD is 25%. Field Duplicate was not collected for this sampling event.**

### **3.9 Target Compound List Identification**

TCL compounds are identified on the LC/MS/MS by using the analyte's relative retention time (RRT) obtained from known standards.

**LC/MS/MS raw data met the qualitative criteria for identification. All retention times were within required specifications.**



### **3.10 Compound Quantification and Reported Detection Limits**

LC/MS/MS quantitative analysis is acceptable. Samples were extracted by solid phase extraction techniques. Correct internal standards per EPA Method 537 and response factors were used to calculate final concentrations. Results are reported in ng/L for all detections.

**As required, the laboratory reported "J" values between the reporting limits (RL) and Method Detection Limits (MDLs). This is consistent with common laboratory practices and a requirement of the National Environmental Laboratory Approval Program (NELAP).**

**Groundwater samples were all analyzed undiluted. Extracts were performed by SW846 Solid Phase Extraction (3535) utilizing varying initial sample volumes as notated on the Form I's and verified by laboratory prep sheets. Extracts were concentrated to 1 ml and the laboratory has injected 3ul for samples and standards which is acceptable practice.**

### **3.11 Overall System Performance**

**Good resolution and chromatographic performance were observed.**

Reviewer's Signature Laura A. Buyer Date 08/06/2018

**Appendix A  
Chain of Custody  
Documents**

<b>NEW YORK</b> <b>CHAIN OF</b> <b>CUSTODY</b>		Service Centers Mahwah, NJ 07438: 35 Whitney Rd. Suite 3 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave. Suite 105		Page 1 of 2	Date Rec'd In Lab 6/20/18	ALPHA Lab # 1824924
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <u>Min Man Cleaner</u> Project Location: <u>89 Ocean Ave E. Rockaway NY</u> Project # <u>18016-01</u> (Use Project name as Project #) <input checked="" type="checkbox"/> Project Manager: <u>AS 5644</u> ALPHAQuote #: <u>Turn-Around Time</u> Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: <u>6/20/18</u> # of Days: <u>1</u>		
Client Information Client: <u>JA Hume</u> Address: <u>7555 Victory Hwy Suite 204</u> <u>Rockton, NY 11779</u> Phone: <u>631 274 2220</u> Fax: <u>631 274 2221</u> Email: <u>AS@hohumet.com</u>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> ASP-B <input checked="" type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other				
Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other <u>Cat B</u> <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				
ANALYSIS These samples have been previously analyzed by Alpha <input checked="" type="checkbox"/> Other project specific requirements/comments:						
Please specify Metals or TAL.						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Time	Sample Matrix	Sampler's Initials	Sample Specific Comments
24924-01	BB-1	6/28/18	1043	GW	AS	X 8260
24924-02	Field Blank	6/28/18	0915		AS	X Full PFA TALL
24924-03	NW-15		1334		AS	X
24924-04	NW-10		1345		AS	X
24924-05	NW-25		1253		AS	X
24924-06	NW-20		1713		AS	X
24924-07	NW-35		1147		AS	X
24924-08	NW-30		1210		AS	X
24924-09	NW-45		1105		AS	X
24924-10	NW-40		1125		AS	X
Preservation Code: P = Plastic A = Amber Glass C = HCl D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn AcNaOH O = Other		Container Code Westboro: Certification No. MA935 Mansfield: Certification No. MA015		Container Type Preservation		
Relinquished By: <u>AS 5644</u>		Date/Time <u>6/20/18 13:57</u>		Received By: <u>AS 5644</u>		
Date/Time <u>6/20/18 13:57</u>		Date/Time <u>6/20/18 13:57</u>		Date/Time <u>6/20/18 13:57</u>		

<b>NEW YORK</b> <b>CHAIN OF</b> <b>CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 25 Whitney Rd, Suite 3 Albany, NY 12208: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 2 of 2		Date Rec'd In Lab 6/30/18		Billing Information Same as Client Info	
<b>Client Information</b> Client: J.A. Holmwood Address: 7555 Urban Hill Swick Phone: 671 234 2220 Fax: 671 234 2221 Email: J.A.Holmwood.com		<b>Project Information</b> Project Name: Min Min (Hond) Project Location: 89 Ocean Ave E. Rockaway nj Project # PWD 16-01 (Use Project name as Project #) <input checked="" type="checkbox"/> Project Manager: AJ Smith ALPHAQuote #: Turn-Around Time: Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days: These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:		<b>Deliverables</b> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input checked="" type="checkbox"/> Other <input type="checkbox"/>		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input checked="" type="checkbox"/> Other: Cyt B <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> <input type="checkbox"/> NYC Sewer Discharge	
<b>Sample ID</b> ALPHA Lab ID (Lab Use Only) 24024-11 MW-55 24024-12 MW-50 24024-13 MW-9 24024-14 MW-12 24024-15 MW-145 24024-16 MW-140 24024-17 MW-145		<b>Collection</b> Date Time 6/29/18 0940 6/29/18 0954 1020 1233 0853 0824 0915		<b>Sample Matrix</b> CW L L L L L L		<b>Sampler's Initials</b> J J J J J J J		<b>ANALYSIS</b> Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample Specific Comments	
<b>Westboro: Certification No: MA935</b> <b>Mansfield: Certification No: MA015</b>		<b>Container Code</b> P = Plastic A = Amber Glass C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = MeOH F = NaOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		<b>Container Type</b> 6 <b>Preservative</b> B		<b>Relinquished By:</b> J.A. Holmwood Date/Time: 6/29/18 13:57 6/29/18 1900 6/30/18 1100		<b>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS &amp; CONDITIONS. (See reverse side.)</b>	



## Sample Delivery Group Summary

Alpha Job Number : L1824924

Received : 29-JUN-2018

Account Name : J.R. Holzmacher P.E., LLC

Reviewer : Richard Scott

Project Number : MANID 16-01

Project Name : MIN MAN CLEANERS

### Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.0	

### Condition Information

All samples on COC received? YES

Extra samples received? NO

Are there any sample container discrepancies? NO

Are there any discrepancies between sample labels & COC? NO

Are samples in appropriate containers for requested analysis? YES

Are samples properly preserved for requested analysis? YES

Are samples within holding time for requested analysis? YES

All sampling equipment returned? NA

### Volatile Organics/VPH

Reagent Water Vials Frozen by Client? NO

**Appendix B**  
**Case Narrative**

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1824924  
**Report Date:** 07/11/18

**Case Narrative (continued)**

**Report Submission**

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

**Perfluorinated Alkyl Acids by Isotope Dilution**

L1824924-02, -09, WG1131820-1/-2/-3 and WG1133643-1/-2/-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1131820-2/-3 LCS/LCSD RPD, associated with L1824924-02, is above the acceptance criteria for perfluorodecanesulfonic acid (pfd) (35%).

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

*Michelle M. Monis*

Report Date: 07/11/18

Title: Technical Director/Representative

*Jon 8/1/18* 



**Appendix C**  
**Validated Form I's**  
**With Qualifications**

# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-01  
Client ID : DB-1  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A18  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 10:43  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 19:15  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	17	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	8.6	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	21	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	13	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	3.2	2.0	0.65	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U J
75-01-4	Vinyl chloride	0.26	1.0	0.07	J
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-01  
 Client ID : DB-1  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A18  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 10:43  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:15  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	2.5	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-01  
Client ID : DB-1  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A18  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 10:43  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 19:15  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U VJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

for  
8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-03D  
 Client ID : MW-1S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A19  
 Sample Amount : 2.5 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:41  
 Dilution Factor : 4  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	10	2.8	U
75-34-3	1,1-Dichloroethane	ND	10	2.8	U
67-66-3	Chloroform	ND	10	2.8	U
56-23-5	Carbon tetrachloride	ND	2.0	0.54	U
78-87-5	1,2-Dichloropropane	ND	4.0	0.55	U
124-48-1	Dibromochloromethane	ND	2.0	0.60	<del>U</del> UJ
79-00-5	1,1,2-Trichloroethane	ND	6.0	2.0	U
127-18-4	Tetrachloroethene	260	2.0	0.72	
108-90-7	Chlorobenzene	ND	10	2.8	U
75-69-4	Trichlorofluoromethane	ND	10	2.8	U
107-06-2	1,2-Dichloroethane	ND	2.0	0.53	U
71-55-6	1,1,1-Trichloroethane	ND	10	2.8	U
75-27-4	Bromodichloromethane	ND	2.0	0.77	U
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.66	U
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.58	U
542-75-6	1,3-Dichloropropene, Total	ND	2.0	0.58	U
563-58-6	1,1-Dichloropropene	ND	10	2.8	U
75-25-2	Bromoform	ND	8.0	2.6	<del>U</del> UJ
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.67	U
71-43-2	Benzene	ND	2.0	0.64	U
108-88-3	Toluene	ND	10	2.8	U
100-41-4	Ethylbenzene	ND	10	2.8	U
74-87-3	Chloromethane	ND	10	2.8	U
74-83-9	Bromomethane	ND	10	2.8	<del>U</del> UJ
75-01-4	Vinyl chloride	0.93	4.0	0.28	J
75-00-3	Chloroethane	ND	10	2.8	U
75-35-4	1,1-Dichloroethene	ND	2.0	0.68	U

for  
8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-03D  
 Client ID : MW-1S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A19  
 Sample Amount : 2.5 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:41  
 Dilution Factor : 4  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	10	2.8	U
79-01-6	Trichloroethene	11	2.0	0.70	
95-50-1	1,2-Dichlorobenzene	ND	10	2.8	U
541-73-1	1,3-Dichlorobenzene	ND	10	2.8	U
106-46-7	1,4-Dichlorobenzene	ND	10	2.8	U
1634-04-4	Methyl tert butyl ether	ND	10	2.8	U
179601-23-1	p/m-Xylene	ND	10	2.8	U
95-47-6	o-Xylene	ND	10	2.8	U
1330-20-7	Xylenes, Total	ND	10	2.8	U
156-59-2	cis-1,2-Dichloroethene	3.2	10	2.8	J
540-59-0	1,2-Dichloroethene, Total	3.2	10	2.8	J
74-95-3	Dibromomethane	ND	20	4.0	U
96-18-4	1,2,3-Trichloropropane	ND	10	2.8	U
107-13-1	Acrylonitrile	ND	20	6.0	U
100-42-5	Styrene	ND	10	2.8	U
75-71-8	Dichlorodifluoromethane	ND	20	4.0	U
67-64-1	Acetone	ND	20	5.8	U
75-15-0	Carbon disulfide	ND	20	4.0	U
78-93-3	2-Butanone	ND	20	7.8	U
108-05-4	Vinyl acetate	ND	20	4.0	U
108-10-1	4-Methyl-2-pentanone	ND	20	4.0	U
591-78-6	2-Hexanone	ND	20	4.0	U
74-97-5	Bromochloromethane	ND	10	2.8	U
594-20-7	2,2-Dichloropropane	ND	10	2.8	U
106-93-4	1,2-Dibromoethane	ND	8.0	2.6	U
142-28-9	1,3-Dichloropropane	ND	10	2.8	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	2.8	U

*for 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-03D  
 Client ID : MW-1S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A19  
 Sample Amount : 2.5 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:41  
 Dilution Factor : 4  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	10	2.8	U
104-51-8	n-Butylbenzene	ND	10	2.8	U
135-98-8	sec-Butylbenzene	ND	10	2.8	U
98-06-6	tert-Butylbenzene	ND	10	2.8	U
95-49-8	o-Chlorotoluene	ND	10	2.8	U
106-43-4	p-Chlorotoluene	ND	10	2.8	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.8	U
87-68-3	Hexachlorobutadiene	ND	10	2.8	U
98-82-8	Isopropylbenzene	ND	10	2.8	U
99-87-6	p-Isopropyltoluene	ND	10	2.8	U
91-20-3	Naphthalene	ND	10	2.8	U <i>UT</i>
103-65-1	n-Propylbenzene	ND	10	2.8	U
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.8	U
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.8	U
108-67-8	1,3,5-Trimethylbenzene	ND	10	2.8	U
95-63-6	1,2,4-Trimethylbenzene	ND	10	2.8	U
123-91-1	1,4-Dioxane	ND	1000	240	U <i>R</i>
105-05-5	p-Diethylbenzene	ND	8.0	2.8	U
622-96-8	p-Ethyltoluene	ND	8.0	2.8	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	8.0	2.2	U
60-29-7	Ethyl ether	ND	10	2.8	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	10	2.8	U

*8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-04  
Client ID : MW-1D  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A20  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 13:45  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 20:06  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U - UJ
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	88	0.50	0.18	
106-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U - UJ
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U - UJ
75-01-4	Vinyl chloride	0.15	1.0	0.07	J
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

8/8/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-04  
 Client ID : MW-1D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A20  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:45  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:06  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	2.7	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	0.72	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-04  
 Client ID : MW-1D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A20  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:45  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:06  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U UJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-05  
 Client ID : MW-2S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A21  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:53  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:31  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	3.2	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	2.6	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	140	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	2.5	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	1.7	2.0	0.65	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-05  
 Client ID : MW-2S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A21  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:53  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:31  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.5	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	0.98	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	0.98	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*for*  
 8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-05  
Client ID : MW-2S  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A21  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 12:53  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 20:31  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U UJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

for 8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-06  
Client ID : MW-2D  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A22  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 13:13  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 20:56  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	4.4	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	2.4	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	68	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	3.0	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	1.3	2.0	0.65	J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-06  
 Client ID : MW-2D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A22  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:13  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:56  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.0	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.7	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.7	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*for 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-06  
 Client ID : MW-2D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A22  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 13:13  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 20:56  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U <i>UJ</i>
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U <i>R</i>
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-07  
 Client ID : MW-3S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A23  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:47  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 21:21  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	0.53	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	180	0.50	0.18	
106-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U U J
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

*Signature*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-07  
 Client ID : MW-3S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A23  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:47  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 21:21  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.6	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*for 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-07  
 Client ID : MW-3S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A23  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:47  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 21:21  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U VJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

805/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1824924-08  
Client ID : MW-3D  
Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
Sample Matrix : WATER  
Analytical Method : 1,8260C  
Lab File ID : V05180708A24  
Sample Amount : 10 ml  
Level : LOW  
Extract Volume (MeOH) : N/A

Lab Number : L1824924  
Project Number : MANID 16-01  
Date Collected : 06/28/18 12:10  
Date Received : 06/29/18  
Date Analyzed : 07/08/18 21:46  
Dilution Factor : 1  
Analyst : PD  
Instrument ID : VOA105  
GC Column : RTX-502.2  
%Solids : N/A  
Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	1.8	2.5	0.70	J
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	1.2	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	30	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	1.1	0.50	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	0.85	2.0	0.65	J J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U U J
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

*Jan*  
*8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-08  
 Client ID : MW-3D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A24  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:10  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 21:46  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.92	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*John 11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-08  
 Client ID : MW-3D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A24  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:10  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 21:46  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U <i>VJ</i>
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U <i>R</i>
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

*8/8/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A25  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:12  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	0.58	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	160	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	0.21	0.50	0.19	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

for 8/11/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A25  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:12  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.6	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*John Miller*





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A25  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:12  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U VJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

*John 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-10  
 Client ID : MW-4D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A26  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:25  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:37  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	0.62	0.50	0.15	J
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	81	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	0.32	0.50	0.19	J
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U J
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U J
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

8078/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-10  
 Client ID : MW-4D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A26  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:25  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:37  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	1.6	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

for 181118



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-10  
 Client ID : MW-4D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V05180708A26  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:25  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 22:37  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA105  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U VJ
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

for 8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-11D  
 Client ID : MW-5S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B12  
 Sample Amount : 4 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:40  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:57  
 Dilution Factor : 2.5  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	6.2	1.8	U
75-34-3	1,1-Dichloroethane	ND	6.2	1.8	U
67-66-3	Chloroform	ND	6.2	1.8	U
56-23-5	Carbon tetrachloride	ND	1.2	0.34	U
78-87-5	1,2-Dichloropropane	ND	2.5	0.34	U
124-48-1	Dibromochloromethane	ND	1.2	0.37	U
79-00-5	1,1,2-Trichloroethane	ND	3.8	1.2	U
127-18-4	Tetrachloroethene	180	1.2	0.45	
106-90-7	Chlorobenzene	ND	6.2	1.8	U
75-69-4	Trichlorofluoromethane	ND	6.2	1.8	U
107-06-2	1,2-Dichloroethane	ND	1.2	0.33	U
71-55-6	1,1,1-Trichloroethane	ND	6.2	1.8	U
75-27-4	Bromodichloromethane	ND	1.2	0.48	U
10061-02-6	trans-1,3-Dichloropropene	ND	1.2	0.41	U
10061-01-5	cis-1,3-Dichloropropene	ND	1.2	0.36	U
542-75-6	1,3-Dichloropropene, Total	ND	1.2	0.36	U
563-58-6	1,1-Dichloropropene	ND	6.2	1.8	U
75-25-2	Bromoform	ND	5.0	1.6	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.2	0.42	U
71-43-2	Benzene	ND	1.2	0.40	U
108-88-3	Toluene	ND	6.2	1.8	U
100-41-4	Ethylbenzene	ND	6.2	1.8	U
74-87-3	Chloromethane	ND	6.2	1.8	U
74-83-9	Bromomethane	ND	6.2	1.8	U
75-01-4	Vinyl chloride	1.0	2.5	0.18	J
75-00-3	Chloroethane	ND	6.2	1.8	U
75-35-4	1,1-Dichloroethene	0.54	1.2	0.42	J

for 8/1/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-11D  
 Client ID : MW-5S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B12  
 Sample Amount : 4 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:40  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:57  
 Dilution Factor : 2.5  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	6.2	1.8	U
79-01-6	Trichloroethene	18	1.2	0.44	
95-50-1	1,2-Dichlorobenzene	ND	6.2	1.8	U
541-73-1	1,3-Dichlorobenzene	ND	6.2	1.8	U
106-46-7	1,4-Dichlorobenzene	ND	6.2	1.8	U
1634-04-4	Methyl tert butyl ether	30	6.2	1.8	
179601-23-1	p/m-Xylene	ND	6.2	1.8	U
95-47-6	o-Xylene	ND	6.2	1.8	U
1330-20-7	Xylenes, Total	ND	6.2	1.8	U
156-59-2	cis-1,2-Dichloroethene	6.4	6.2	1.8	
540-59-0	1,2-Dichloroethene, Total	6.4	6.2	1.8	
74-95-3	Dibromomethane	ND	12	2.5	U
96-18-4	1,2,3-Trichloropropane	ND	6.2	1.8	U
107-13-1	Acrylonitrile	ND	12	3.8	U
100-42-5	Styrene	ND	6.2	1.8	U
75-71-8	Dichlorodifluoromethane	ND	12	2.5	U
67-64-1	Acetone	ND	12	3.6	U
75-15-0	Carbon disulfide	ND	12	2.5	U
78-93-3	2-Butanone	ND	12	4.8	U
108-05-4	Vinyl acetate	ND	12	2.5	U
108-10-1	4-Methyl-2-pentanone	ND	12	2.5	U
591-78-6	2-Hexanone	ND	12	2.5	U
74-97-5	Bromochloromethane	ND	6.2	1.8	U
594-20-7	2,2-Dichloropropane	ND	6.2	1.8	U
106-93-4	1,2-Dibromoethane	ND	5.0	1.6	U
142-28-9	1,3-Dichloropropane	ND	6.2	1.8	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.2	1.8	U

*John 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-11D  
 Client ID : MW-5S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B12  
 Sample Amount : 4 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:40  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:57  
 Dilution Factor : 2.5  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	6.2	1.8	U
104-51-8	n-Butylbenzene	ND	6.2	1.8	U
135-98-8	sec-Butylbenzene	ND	6.2	1.8	U
98-06-6	tert-Butylbenzene	ND	6.2	1.8	U
95-49-8	o-Chlorotoluene	ND	6.2	1.8	U
106-43-4	p-Chlorotoluene	ND	6.2	1.8	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	6.2	1.8	U
87-68-3	Hexachlorobutadiene	ND	6.2	1.8	U
98-82-8	Isopropylbenzene	ND	6.2	1.8	U
99-87-6	p-Isopropyltoluene	ND	6.2	1.8	U
91-20-3	Naphthalene	ND	6.2	1.8	U
103-65-1	n-Propylbenzene	ND	6.2	1.8	U
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	1.8	U
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	1.8	U
108-67-8	1,3,5-Trimethylbenzene	ND	6.2	1.8	U
95-63-6	1,2,4-Trimethylbenzene	ND	6.2	1.8	U
123-91-1	1,4-Dioxane	ND	620	150	U-R
105-05-5	p-Diethylbenzene	ND	5.0	1.8	U
622-96-8	p-Ethyltoluene	ND	5.0	1.8	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	5.0	1.4	U
60-29-7	Ethyl ether	ND	6.2	1.8	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	6.2	1.8	U

for 8/11/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-12  
 Client ID : MW-5D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B06  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:59  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:07  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	1.4	2.5	0.70	J
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	35	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	0.13	1.0	0.07	J
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	0.26	0.50	0.17	J

80N  
8/11/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-12  
 Client ID : MW-5D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B06  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:59  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:07  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	3.5	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	9.3	2.5	0.70	
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	0.81	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	0.81	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

for  
8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-12  
 Client ID : MW-5D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B06  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:59  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:07  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

for 8/1/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-13  
 Client ID : MW-9  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B07  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 10:20  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:35  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	18	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-13  
 Client ID : MW-9  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B07  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 10:20  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:35  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.97	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	2.2	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	2.2	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	2.2	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*Jon 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-13  
 Client ID : MW-9  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B07  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 10:20  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 17:35  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

*for 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-14  
 Client ID : MW-12  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B08  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:33  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:03  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	77	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

8/11/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-14  
 Client ID : MW-12  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B08  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:33  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:03  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	1.2	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

8/11/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-14  
 Client ID : MW-12  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B08  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 12:33  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:03  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

8/8/18





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-15  
 Client ID : MW-14S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B09  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:53  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:32  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	4.8	2.5	0.70	
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.51	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U - UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-15  
 Client ID : MW-14S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B09  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:53  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:32  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	12	2.5	0.70	
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

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# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-15  
 Client ID : MW-14S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B09  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:53  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 18:32  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

8/8/18



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-16  
 Client ID : MW-14D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B10  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:00  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	Results	ug/L		Qualifier
			RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-46-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

*8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-16  
 Client ID : MW-14D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B10  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:00  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*for 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-16  
 Client ID : MW-14D  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B10  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 08:34  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:00  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
106-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

*John 8/11/18*



# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-17  
 Client ID : MW-14WT  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B11  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:15  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:28  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	31	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U

*8/11/18*





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-17  
 Client ID : MW-14WT  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B11  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:15  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:28  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.82	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	2.0	2.5	0.70	J
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	4.5	5.0	1.5	J
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U

*John Smith*





# Form 1 VOA

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-17  
 Client ID : MW-14WT  
 Sample Location : 89 OCEAN AVE., E. ROCKAWAY, NY  
 Sample Matrix : WATER  
 Analytical Method : 1,8260C  
 Lab File ID : V22180708B11  
 Sample Amount : 10 ml  
 Level : LOW  
 Extract Volume (MeOH) : N/A

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:15  
 Date Received : 06/29/18  
 Date Analyzed : 07/08/18 19:28  
 Dilution Factor : 1  
 Analyst : PD  
 Instrument ID : VOA122  
 GC Column : RTX-502.2  
 %Solids : N/A  
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U-R
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

8/11/18



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-01  
 Client ID : DB-1  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : F1607091803  
 Sample Amount : 520 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 5000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 10:43  
 Date Received : 06/29/18  
 Date Analyzed : 07/09/18 11:14  
 Date Extracted : 07/05/18  
 Dilution Factor : 1  
 Analyst : TJ  
 Instrument ID : PAH16  
 GC Column : RTX-5  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	92.5	144	72.1	J



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 1,8270D-SIM  
 Lab File ID : F1607091804  
 Sample Amount : 520 ml  
 Extraction Method : EPA 3510C  
 Extract Volume : 5000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/09/18 11:36  
 Date Extracted : 07/05/18  
 Dilution Factor : 1  
 Analyst : TJ  
 Instrument ID : PAH16  
 GC Column : RTX-5  
 %Solids : N/A  
 Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	72.1	U



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-02  
 Client ID : FIELD BLANK  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 122,537(M)  
 Lab File ID : 18410  
 Sample Amount : 270 ml  
 Extraction Method : EPA 537  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:35  
 Date Received : 06/29/18  
 Date Analyzed : 07/03/18 17:46  
 Date Extracted : 07/02/18  
 Dilution Factor : 1  
 Analyst : AJ  
 Instrument ID : LCMS01  
 GC Column : Acquity UPLC BEH C18  
 %Solids : N/A  
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	1.85	0.121	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	1.85	0.079	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.85	0.102	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.85	0.117	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.85	0.086	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND 0.126	1.85	0.100	J U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND 0.178	1.85	0.047	J U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.804	1.85	0.180	J
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.85	0.144	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.85	0.093	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.85	0.103	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.85	0.176	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	1.85	0.269	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	1.85	0.232	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.85	0.177	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.85	0.206	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	1.85	0.210	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.85	0.345	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.85	0.085	U
72629-94-8	Perfluorotridecanoic Acid (PFTTrDA)	ND	1.85	0.084	U

8/3/18



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-02  
 Client ID : FIELD BLANK  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 122,537(M)  
 Lab File ID : I8410  
 Sample Amount : 270 ml  
 Extraction Method : EPA 537  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 09:35  
 Date Received : 06/29/18  
 Date Analyzed : 07/03/18 17:46  
 Date Extracted : 07/02/18  
 Dilution Factor : 1  
 Analyst : AJ  
 Instrument ID : LCMS01  
 GC Column : Acquity UPLC BEH C18  
 %Solids : N/A  
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
376-06-7	Perfluorotetradecanoic Acid (PFTA)	0.337	1.85	0.067	J

for 8/31/18



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 122,537(M)  
 Lab File ID : I8531  
 Sample Amount : 250 ml  
 Extraction Method : EPA 537  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/10/18 17:26  
 Date Extracted : 07/09/18  
 Dilution Factor : 1  
 Analyst : AJ  
 Instrument ID : LCMS01  
 GC Column : Acquity UPLC BEH C18  
 %Solids : N/A  
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	0.564	2.00	0.131	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	0.504	2.00	0.086	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.140	2.00	0.110	J
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.468	2.00	0.126	J
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	2.00	0.092	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.424	2.00	0.108	J
335-67-1	Perfluorooctanoic Acid (PFOA)	1.04	2.00	0.050	J
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	4.56	2.00	0.194	
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	2.00	0.155	U
375-95-1	Perfluorononanoic Acid (PFNA)	0.248	2.00	0.101	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	4.00	2.00	0.112	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	2.00	0.190	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	2.00	0.291	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	2.00	0.250	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	2.00	0.191	U
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	2.00	0.222	U
754-91-6	Perfluorooctanesulfonamide (FOSA)	ND	2.00	0.227	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	2.00	0.373	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	2.00	0.092	U
72629-94-8	Perfluorotridecanoic Acid (PFTTrDA)	ND	2.00	0.090	U

801873118



# Form 1

## SemiVolatile Organics

Client : J.R. Holzmacher P.E., LLC  
 Project Name : MIN MAN CLEANERS  
 Lab ID : L1824924-09  
 Client ID : MW-4S  
 Sample Location : 89 OCEAN AVE., E. ROCKAWA  
 Sample Matrix : WATER  
 Analytical Method : 122,537(M)  
 Lab File ID : I8531  
 Sample Amount : 250 ml  
 Extraction Method : EPA 537  
 Extract Volume : 1000 uL  
 GPC Cleanup : N

Lab Number : L1824924  
 Project Number : MANID 16-01  
 Date Collected : 06/28/18 11:05  
 Date Received : 06/29/18  
 Date Analyzed : 07/10/18 17:26  
 Date Extracted : 07/09/18  
 Dilution Factor : 1  
 Analyst : AJ  
 Instrument ID : LCMS01  
 GC Column : Acquity UPLC BEH C18  
 %Solids : N/A  
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
376-06-7	Perfluorotetradecanoic Acid (PFTA)	ND	2.00	0.072	U

*873718*



**DATA USABILITY SUMMARY REPORT (DUSR)**

**ORGANIC ANALYSIS**

**EPA Compendium Method TO-15  
LOW LEVEL VOLATILES BY GC/MS**

**For Soil Vapor Air - Effluent Sample**

**Collected June 28, 2018**

**Minuteman Cleaners**

**From 89 Ocean Avenue, East Rockaway, New York**

**by J.R. Holzmacher P.E. LLC.**

**Project #: ManID 16-01**

**SAMPLE DELIVERY GROUP NUMBER:**

**L1825021**

**Alpha Analytical (ELAP #11148)**

**SUBMITTED TO:**

**Ms. Patricia Zalak  
J.R. Holzmacher P.E., LLC  
3555 Veterans Memorial Highway, Suite A  
Ronkonkoma, NY 11779**

**August 05, 2018**

**PREPARED BY:**

**Lori A. Beyer/President  
L.A.B. Validation Corp.  
14 West Point Drive  
East Northport, NY 11731**

*Lori A. Beyer*



89 Ocean Avenue, East Rockaway, New York; June 2018.  
Data Validation Report: Volatile Organics

Table of Contents:

	Introduction
	Data Qualifier Definitions
	Sample Receipt
1.0	Volatile Organics by GC/MS EPA Compendium Method TO-15
1.1	Holding Time
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1.4	Laboratory Control Sample
1.5	Blank Contamination
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1.7	Initial and Continuing Calibrations
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1.10	Tentatively Identified Compounds
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1.12	Overall System Performance

**APPENDICES:**

- A. Chain of Custody Document
- B. Case Narrative
- C. Form Is with Qualifications

**Introduction:**

A validation was performed on an Effluent soil vapor sample for Volatile Organic analysis collected by J.R. Holzmacher, P.E., LLC and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the Effluent sample collected on June 28, 2018.

The sample was analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6-Updated September 2016) and in conjunction with the analytical methodology for which the sample was analyzed, where applicable and relevant.

**Data Qualifier Definitions:**

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

**U        -        The analyte was analyzed for but was not detected above the reported sample quantitation limit.**

**J        -        The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.**

**J+      -        The result is an estimated quantity, but the result may be biased high.**

**J-      -        The result is an estimated quantity, but the result may be biased low.**

**NJ     -        The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.**

**UJ     -        The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.**

**R        -        The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.**

**D        -        Analyte concentration was obtained from diluted analysis.**

**Sample Receipt:**

The Chain of Custody document from 06/28/18 indicates that the air sample was received via laboratory courier following completion of the sampling event on 06/29/2018. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister sample is assumed to be good.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed. The canister passed the leak check requirements; canister pressure for Hg was acceptable.

The Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the samples identified above and summarize the detailed narrative section of the report. All data validation qualifications have been reported on the Form I's for ease of review and verification.

**NOTE:**

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

## **Volatile Organics by EPA Compendium Method TO-15**

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Laboratory Duplicate, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results are valid and useable as noted on the data summary Form I's in Appendix C and within the following text:

### **1.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

**The Effluent sample was analyzed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.**

### **1.2 Surrogate Standards**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specifications, qualifications are required to be applied to associated samples and analytes.

**Samples were not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.**

### **1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Laboratory Duplicate /Field Duplicate Analysis**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**Matrix Spike/Matrix Spike Duplicate analysis was not performed.**

**Batch laboratory duplicate was submitted in the data package. Data was not qualified based on non-site-specific QC.**

**Field Duplicate analysis was not required for this sampling event. The following criteria are utilized for Field/Lab Duplicate analysis when performed:**

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent of duplicate sample. However, the detected concentration was $\leq 2 \times$ the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $> 2 \times$ the reporting limit.	J in the parent and duplicate sample	UJ in the parent of duplicate sample

**No qualifications to the data were applied based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.**

#### **1.4 Laboratory Control Sample**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

The following table summarizes the LCS criteria and the data qualification guidelines for all associated field samples.

LCS	NOT QUALIFIED	J	R
% Recovery:			
Detects	70-130%	<70%, >130%	
Non-Detects	$\geq 130\%$	50-69%	<50%
Absolute RT of LCS Compounds:			
LCS Compounds in samples RT: (min)	$\pm 0.33$		$\geq 0.33$

**Acceptable LCS was analyzed. Recovery values for all reported compounds was determined to be >70%-<130% except for Benzyl Chloride which recovered high at 137%. Since this target compound was not detected in the Effluent sample, high recovery does not support any potential loss of detection and/or result bias. No qualifications to the data are required.**

## **1.5 Blank Contamination**

Quality assurance (QA) blanks; i.e. method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples and are not required for TO15 analysis. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to method blank contamination. The largest value from all the associated blanks is required to be utilized. The largest value from all the associated blanks is required to be utilized:

<b>Blank Type</b>	<b>Blank Result</b>	<b>Sample Result</b>	<b>Action for Samples</b>
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>= CRQL* and <2x the CRQL**	No qualification required
	>CRQL*	<= CRQL*	Report CRQL value with a U
		>= CRQL* and <= blank concentration	Report blank value for sample concentration with a U
		>= CRQL* and > blank concentration	No qualification required
	=CRQL*	<= CRQL*	Report CRQL value with a U
		>CRQL*	No qualification required
	Gross Contamination**	Detects	Report blank value for sample concentration with a U

\*2x the CRQL for methylene chloride, 2-butanone and acetone.

\*\*4x the CRQL for methylene chloride, 2-butanone, and acetone

\*\*\*Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

The table below is utilized to qualify samples with target compound results also present in certification blanks:

<b>Certification Contamination</b>	<b>Sample Result</b>	<b>Action for Sample</b>
>=detect limit	>5x certification contamination	No qualification required
>=detect limit	<detect limit	Detection limit "U"
>=detect limit	>=detect limit and <= 5x certification contamination level	5x certification contamination "U"
<detect limit	<=detection limit and >= detection limit	No qualification

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

**A) Method Blank Contamination:**

**Method and Canister blanks were determined to be free of any contamination.**

**B) Field Blank Contamination:**

**Field Blank analysis was not required for this SDG.**

**C) Trip Blank Contamination:**

**Trip Blank analysis was not required for this SDG.**

**1.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

**Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses conducted for this SDG.**

**1.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence.



The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds can be  $> 0.01$  without qualification:

2-Butanone  
Carbon Disulfide  
Chloroethane  
Chloromethane  
1,2-Dibromoethane  
1,2-Dichloropropane  
1,4-Dioxane  
1,2-Dibromo-3-chloropropane  
Methylene Chloride

**All the response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ) [or  $\geq 0.01$  for the 9 compounds above] and remaining analytes, for the initial and continuing calibrations.**

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):

Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $< 30\%$  and %D must be  $< 30\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria ( $> 90\%$ ), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $> 30\%$  and eliminating either the high or the low point of the curve does not restore the

%RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists.

**Initial Calibrations:** The initial calibrations provided and the %RSD was within acceptable limits (30%) and (40%) for poor responders for all requested target compounds except for Benzyl Chloride (33.5%). Non-detects in the effluent sample have been qualified, "UJ." Initial calibration verification standard met QC requirements.

**Continuing Calibrations:** The continuing calibrations provided and the %D was within acceptable limits (30%) and (40%) for poor responders for all reported compounds.

## **1.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/- 20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**Internal Standard area responses met QC requirements.**

## **1.9 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm 0.06$ RRT units of the standard compound and have an ion spectrum which has a ratio of the primary

and secondary m/e intensities within 20% of that in the standard compound.

**GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.**

**1.10 Tentatively Identified Compounds (TICs)**

TICs when submitted, the identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently, all concentrations should be considered estimated, "J" and because of the qualitative uncertainty should be qualified, "N" where an identification has been made.

**TICs were not required with this data set.**

**1.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis are acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

**Sample results have been presented in ug/m3 as well as ppbv on the laboratory reporting forms. Effluent sample was analyzed at 200mls. Reporting limits have been adjusted accordingly.**

**1.12 Overall System Performance**

**GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.**

Reviewer's Signature *Ronald Beyer* Date 08/05/2018

**Appendix A  
Chain of Custody  
Document**



# AIR ANALYSIS

CHAIN OF CUSTODY  
320 Forbes Blvd, Mansfield, MA 02048  
TEL: 508-822-9300 FAX: 508-822-3288

## Client Information

Client: J R Holzmacher  
Address: 3555 Veterans Hwy Suite A  
Punkunkoma NY 11779  
Phone: 631 234 2220  
Fax: 631 234 2221  
Email: A@choholmacher.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

## Project Information

Project Name: Min Man Cleared  
Project Location: 89 Ocean Ave E. Rockaway  
Project #: Man 10 16-01  
Project Manager: AJ Scheff  
ALPHA Quote #:

## Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Time:

## Report Information - Data Deliverables

☐ FAX ☒ E-MAIL  
Criteria Checker: (Default based on Regulatory Criteria Indicated)  
Other Formats:  
☐ EMAIL (standard pdf report)  
☐ Additional Deliverables:  
Report for: (if different than Project Manager)

Date Rec'd in Lab: 6/30/18

ALPHA Job #: L1825021

## Billing Information

☒ Same as Client info ☐ PO #:

## Regulatory Requirements/Report Limits

State/Fed Program Res / Comm  
NY Cat B

## ANALYSIS

☐ Volatiles & Mercaptans by TO-15  
☐ Fixed Gases  
APH Subject Non-Exhaustive HCs  
TO-15 SIM  
TO-15  
Sample Comments (i.e. PID)

## All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Sample Matrix*	Sample Initials	Can Size	ID Can	ID - Flow Controller
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum				
5071-01 Effluent		6/28/18	12:15	12:26	29.9	33.7	SV	ASJ	27	373 0605 X

## \*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)  
SV = Soil Vapor/Landfill Gas/SVE  
Other = Please Specify

## Relinquished By:

Date/Time

Received By:

Date/Time

Container Type

CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## Sample Delivery Group Summary

Alpha Job Number : L1825021

Received : 29-JUN-2018  
Reviewer : Bethany Bedard

Account Name : J.R. Holzmacher P.E., LLC  
Project Number : MANID 16-01  
Project Name : MIN MAN CLEANERS

### Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
N/A	Absent/			

### Condition Information

All samples on COC received?	YES
Extra samples received?	NO
Are there any sample container discrepancies?	NO
Are there any discrepancies between sample labels & COC?	NO
Are samples in appropriate containers for requested analysis?	YES
Are samples properly preserved for requested analysis?	YES
Are samples within holding time for requested analysis?	YES
All sampling equipment returned?	YES

### Volatile Organics/VPH

Reagent Water Vials Frozen by Client?	NA
---------------------------------------	----

**Appendix B  
Case Narrative**

**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
**Report Date:** 07/09/18

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.



**Project Name:** MIN MAN CLEANERS  
**Project Number:** MANID 16-01

**Lab Number:** L1825021  
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**Case Narrative (continued)**

**Volatile Organics in Air**

Canisters were released from the laboratory on June 27, 2018. The canister certification results are provided as an addendum.

L1825021-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1133244-3 LCS recovery for benzyl chloride (137%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: *Dawn E. O'Neil*

Report Date: 07/09/18

Title: Technical Director/Representative

**Appendix C  
Form I's  
With Qualifications**

# Form 1 Volatile Organics

Client : J.R. Holzmacher P.E., LLC  
Project Name : MIN MAN CLEANERS  
Lab ID : L1825021-01D  
Client ID : EFFLUENT  
Sample Location : 89 OCEAN AVE, E. ROCKAWAY, NY  
Sample Matrix : SOIL\_VAPOR  
Analytical Method : 48,TO-15  
Lab File ID : R172711  
Sample Amount : 200 ml

Lab Number : L1825021  
Project Number : MANID 16-01  
Date Collected : 06/28/18 12:26  
Date Received : 06/29/18  
Date Analyzed : 07/07/18 06:07  
Dilution Factor : 1.25  
Analyst : RY  
Instrument ID : AIRLAB17  
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.400	0.250	--	1.98	1.24	--	
74-87-3	Chloromethane	0.310	0.250	--	0.640	0.516	--	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.250	--	ND	1.75	--	U
75-01-4	Vinyl chloride	ND	0.250	--	ND	0.639	--	U
106-99-0	1,3-Butadiene	ND	0.250	--	ND	0.553	--	U
74-83-9	Bromomethane	ND	0.250	--	ND	0.971	--	U
75-00-3	Chloroethane	ND	0.250	--	ND	0.660	--	U
64-17-5	Ethyl Alcohol	11.5	6.25	--	21.7	11.8	--	
593-60-2	Vinyl bromide	ND	0.250	--	ND	1.09	--	U
67-64-1	Acetone	1.61	1.25	--	3.82	2.97	--	
75-69-4	Trichlorofluoromethane	ND	0.250	--	ND	1.40	--	U
67-63-0	iso-Propyl Alcohol	ND	0.625	--	ND	1.54	--	U
75-35-4	1,1-Dichloroethene	ND	0.250	--	ND	0.991	--	U
75-65-0	tert-Butyl Alcohol	ND	0.625	--	ND	1.89	--	U
75-09-2	Methylene chloride	ND	0.625	--	ND	2.17	--	U
107-05-1	3-Chloropropene	ND	0.250	--	ND	0.783	--	U
75-15-0	Carbon disulfide	ND	0.250	--	ND	0.779	--	U
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.250	--	ND	1.92	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.250	--	ND	0.991	--	U
75-34-3	1,1-Dichloroethane	ND	0.250	--	ND	1.01	--	U
1634-04-4	Methyl tert butyl ether	ND	0.250	--	ND	0.901	--	U
78-93-3	2-Butanone	ND	0.625	--	ND	1.84	--	U
156-59-2	cis-1,2-Dichloroethene	0.449	0.250	--	1.78	0.991	--	
141-78-6	Ethyl Acetate	2.24	0.625	--	8.07	2.25	--	
67-66-3	Chloroform	ND	0.250	--	ND	1.22	--	U
109-99-9	Tetrahydrofuran	ND	0.625	--	ND	1.84	--	U
107-06-2	1,2-Dichloroethane	ND	0.250	--	ND	1.01	--	U
110-54-3	n-Hexane	ND	0.250	--	ND	0.881	--	U

*Signature*  
8/14/18



# Form 1 Volatile Organics

Client : J.R. Holzmacher P.E., LLC  
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Lab ID : L1825021-01D  
Client ID : EFFLUENT  
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Sample Matrix : SOIL\_VAPOR  
Analytical Method : 48,TO-15  
Lab File ID : R172711  
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Lab Number : L1825021  
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Dilution Factor : 1.25  
Analyst : RY  
Instrument ID : AIRLAB17  
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
71-55-6	1,1,1-Trichloroethane	ND	0.250	--	ND	1.36	--	U
71-43-2	Benzene	ND	0.250	--	ND	0.799	--	U
56-23-5	Carbon tetrachloride	ND	0.250	--	ND	1.57	--	U
110-82-7	Cyclohexane	ND	0.250	--	ND	0.861	--	U
78-87-5	1,2-Dichloropropane	ND	0.250	--	ND	1.16	--	U
75-27-4	Bromodichloromethane	ND	0.250	--	ND	1.67	--	U
123-91-1	1,4-Dioxane	ND	0.250	--	ND	0.901	--	U
79-01-6	Trichloroethene	0.306	0.250	--	1.64	1.34	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.250	--	ND	1.17	--	U
142-82-5	Heptane	ND	0.250	--	ND	1.02	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.625	--	ND	2.56	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.250	--	ND	1.13	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.250	--	ND	1.36	--	U
108-88-3	Toluene	ND	0.250	--	ND	0.942	--	U
591-78-6	2-Hexanone	ND	0.250	--	ND	1.02	--	U
124-48-1	Dibromochloromethane	ND	0.250	--	ND	2.13	--	U
106-93-4	1,2-Dibromoethane	ND	0.250	--	ND	1.92	--	U
127-18-4	Tetrachloroethene	107	0.250	--	726	1.70	--	
108-90-7	Chlorobenzene	ND	0.250	--	ND	1.15	--	U
100-41-4	Ethylbenzene	ND	0.250	--	ND	1.09	--	U
179601-23-1	p/m-Xylene	ND	0.500	--	ND	2.17	--	U
75-25-2	Bromoform	ND	0.250	--	ND	2.58	--	U
100-42-5	Styrene	ND	0.250	--	ND	1.06	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.250	--	ND	1.72	--	U
95-47-6	o-Xylene	ND	0.250	--	ND	1.09	--	U
622-96-8	4-Ethyltoluene	ND	0.250	--	ND	1.23	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.250	--	ND	1.23	--	U

8/7/18



# Form 1

## Volatile Organics

Client : J.R. Holzmacher P.E., LLC  
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 Client ID : EFFLUENT  
 Sample Location : 89 OCEAN AVE, E. ROCKAWAY, NY  
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 GC Column : RTX-1

CAS NO.	Parameter	Results	ppbV		Results	ug/m3		Qualifier
			RL	MDL		RL	MDL	
95-63-6	1,2,4-Trimethylbenzene	ND	0.250	--	ND	1.23	--	U
100-44-7	Benzyl chloride	ND	0.250	--	ND	1.29	--	U <i>UJ</i>
541-73-1	1,3-Dichlorobenzene	ND	0.250	--	ND	1.50	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.250	--	ND	1.50	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.250	--	ND	1.50	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.250	--	ND	1.86	--	U
87-68-3	Hexachlorobutadiene	ND	0.250	--	ND	2.67	--	U

*for 874118*

