SEMS-RM DOCID # 100020135

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November 15, 2018

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Subject: Quarterly Preliminary Operations Status Report, Third Quarter 2018
Full Scale On-Site Soil Remedy
Omega Chemical Superfund Site, Operable Unit 1, Whittier, California

Dear Mr. Praskins:

Enclosed for your review is the third quarter 2018 Preliminary Operations Status Report for the Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site, Operable Unit 1, Whittier, California.

Please contact me if you have any questions.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

Jaime Dinello, PE
Project Manager

cc: Don Indermill, DTSC

de maximis, inc.

NOVEMBER 15, 2018

FULL SCALE ON-SITE SOIL REMEDY
PRELIMINARY OPERATIONS STATUS REPORT
THIRD QUARTER 2018
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Prepared for:

Omega Chemical Site
PRP Organized Group
(OPOG)

Prepared by:

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FULL-SCALE ON-SITE SOIL REMEDY
OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report
Third Quarter 2018

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ACRONYMS AND ABBREVIATIONS

ug/m^3	micrograms per cubic meter
bgs	below ground surface
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act*
DPE	Dual Phase Extraction
HHRA	Human Health Risk Assessment
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
OM&M	Operations, Maintenance and Monitoring
OPOG	Omega Chemical Site PRP Organized Group*
OU-1	Operable Unit 1
PCE	Tetrachloroethene
QPER	Quarterly Performance Evaluation Report
RAO	Remedial Action Objective
ROD	Record of Decision
RSL	Regional Screening Level
SCAQMD	South Coast Air Quality Management District
SSPRG	Site-Specific Preliminary Remediation Goal
SVE	Soil Vapor Extraction
TCE	Trichloroethene
USEPA	United States Environmental Protection Agency*
VEW	Vapor Extraction Well
VGAC	Vapor-phase Granular Activated Carbon

VMP	Vapor Monitoring Probe
VOC	Volatile Organic Compound

*These acronyms are assumed to be known to the reader and are not spelled out in the body of the report.

FULL-SCALE ON-SITE SOIL REMEDY

OMEGA CHEMICAL SUPERFUND SITE, OU-1

Quarterly Performance Evaluation Report

Third Quarter 2018

1. INTRODUCTION

Operable Unit 1 (OU-1) of the Omega Chemical Superfund Site is defined as the area of soil and groundwater contamination associated with the former Omega Chemical property located at 12504 and 12512 Whittier Boulevard, Whittier, California, and extending downgradient approximately 100 feet southwest of Putnam Street, Whittier, California (see Figure 1). This Quarterly Performance Evaluation Report (QPER) has been prepared on behalf of OPOG to comply with the October 6, 2010 Consent Decree No. 10-05051 (CD) between the USEPA and OPOG (USEPA, 2010). The CD requires OPOG to design, construct, and operate a full-scale soil vapor extraction (SVE) and treatment system and perform associated monitoring to address vadose zone soil within OU-1. The CD statement of work satisfies the requirements of the 2008 OU-1 Record of Decision (ROD) (USEPA, 2008). A brief operational history is provided in the table below.

Brief Operational History

October 6, 2010	Consent Decree No. 10-05051 entered into the US District Court
March to November 2014	Full-Scale On-Site (OU-1) Soils Remedy Construction
March 2015	Begin Continuous Operation of Full-Scale OU-1 SVE System
April 2017	Conversion of VE-7D and VE-10D into DPE Wells
May 21, 2018	USEPA Issued System Certification

2. REPORT PURPOSE AND ORGANIZATION

This QPER complies with the 2010 CD reporting requirements by presenting data collected during the quarter and providing evidence that the Full Scale On-Site (OU-1) Soil Remedy is

compliant with the Remedial Action Objectives (RAOs). Pursuant to the CD, the QPER includes the following general content:

- Description of the RAOs (Section 3);
- Description of the Full Scale On-Site (OU-1) Soil Remedy (Section 4);
- Evaluation of compliance with the RAOs (Section 5);
- Summary of the OU-1 SVE system operational monitoring (Section 6);
- Overall summary assessment of system operations and recommended changes or modifications (Section 7); and
- Planned activities for the next quarter (Section 8).

3. OU-1 ON-SITE SOIL RAOs

The RAOs for the Full Scale On-Site (OU-1) Soil Remedy (as presented in the 2008 ROD) are as follows:

1. Reduce or eliminate the vapor intrusion risk associated with volatile organic compounds (VOC) vapors in OU-1 contaminated soils.
2. Reduce or eliminate the risk associated with direct exposure to, contact with, and/or ingestion of OU-1 contaminated soils.
3. Reduce or eliminate contamination migration to groundwater to levels that protect the OU-1 groundwater resource.

Numerical compliance levels were established in the ROD for RAOs #1 and #2. These were selected from site-specific preliminary remediation goals (SSPRGs) that had been calculated in a 2007 Human Health Risk Assessment (HHRA)[1] conducted for OU-1 (CDM, 2007). The SSPRGs selected in the ROD assumed a future residential exposure within OU-1. However, since OU-1 contains no residential structures, and there are no known plans in place for OU-1 to be developed for residential use, OPOG believes that the SSPRGs are overly conservative for indoor air (RAO #1), and that the Region 9 USEPA Industrial Regional Screening Levels

[1] As directed by USEPA, the HHRA included a number of conservative assumptions inherent to the exposure analysis that may not be fully representative of actual conditions. It is anticipated that an updated HHRA will be prepared in support of ultimate closure of OU-1 soil remediation.

(RSLs) are the appropriate compliance levels for indoor air. For completeness within this report, OPOG has compared indoor air concentrations against both the current industrial and residential USEPA and California RSLs[2].

For RAO #2, the SSPRGs for soil gas are likewise conservative for the planned use of the property, but are presented below as originally calculated in the HHRA, and as adopted by the ROD as cleanup levels for shallow soil gas (0 to 30 feet below ground surface (bgs)).

Shallow soil gas:

- PCE = 470 ug/m^3
- TCE = 1,300 ug/m^3

With regard to RAO #3, USEPA has acknowledged that the nature and extent of contamination in the source zone complicates compliance with RAO #3 as written in the ROD. VOC mass in the deep vadose zone continues to be removed by the implemented remedy.

The data presented herein demonstrate that the Full Scale On-Site (OU-1) Soil Remedy RAOs are being achieved.

4. DESCRIPTION OF THE FULL SCALE ON-SITE (OU-1) SOIL REMEDY

The Full Scale On-site (OU-1) Soil Remedy is implemented using a system of vapor extraction wells (VEWs), dual phase extraction (DPE) wells, a treatment plant, and an associated monitoring network of multi-depth vapor monitoring probes (VMPs). Together these structures comprise the OU-1 SVE system (see Figure 2). During the third quarter 2018, the OU-1 SVE system consisted of the following:

- Fourteen shallow VEWs with varying screen depths between approximately 6 and 30 feet bgs;
- Three deep VEWs with varying screen depths between approximately 30 and 100 feet bgs;

[2] As directed by USEPA, the California RSLs are provided in this report on Figure 3.

- Seven DPE wells (which includes wells VE-10D and VE-7D) with varying screen depths between approximately 30 feet bgs and 100 feet bgs, extending into the water table;
- A vapor treatment plant consisting primarily of one vacuum-generating blower and two vapor-phase granular activated carbon (VGAC) adsorbers operated in series;
- Conveyance piping; and
- Multi-depth VMPs, constructed between 0 and 30 feet bgs (shallow), and between 30 and 70 feet bgs (deep).

The OU-1 SVE system uses vacuum from the blower to draw soil gas through the vadose zone into VEWs and then through conveyance piping to the treatment plant. Soil gas is treated by VGAC prior to discharge to the atmosphere under substantive[3] compliance with South Coast Air Quality Management District (SCAQMD) regulations, as described in the Health Risk Assessment (HRA) (CDM Smith, 2015a)[4]. The VEWs were designed and placed in the vadose zone to target the known areas of soil and soil vapor contamination and to mitigate the potential for contaminated soil gas to enter into on-site buildings. DPE wells are also used to draw soil gas from the vadose zone to the treatment plant. The DPE wells extend into the water table and are fitted with a groundwater extraction pump that removes groundwater locally, lowering the water level in the well, exposing more soil for treatment by SVE. Groundwater extracted by the DPE wells is pumped to the OU-1 Groundwater Containment Remedy treatment plant for treatment, prior to discharge to the sanitary sewer. The volume of water extracted by the DPE wells and the contaminant mass in the extracted water is provided in the OU-1 Groundwater Containment Remedy quarterly reports (de maximis, inc, 2018). Additional information on the OU-1 SVE system is provided in the Operations, Maintenance, and Monitoring (OM&M) Manual (CDM Smith, 2015)[4].

[3] The CERCLA Section 121 exemption does not require the issuance of a formal SCAQMD permit to construct and operate the SVE treatment system. However OPOG did perform an HRA which would have been undertaken for a permit application. This developed the same emissions limits and operational conditions that would have been incorporated into an SCAQMD permit. By following the conditions listed in the HRA, operation is in substantive compliance with SCAQMD regulations and requirements (CDM Smith, 2015a).

[4] These documents are undergoing modification consistent with recent discussions with USEPA, and the 2010 CD.

5. RAO COMPLIANCE MONITORING

Indoor air and soil gas data are collected from within the OU-1 boundary to demonstrate compliance with the RAOs. Ambient air data are collected to characterize air quality outside specified facilities.

Required monitoring to demonstrate compliance is described below.

- Indoor air data are collected from within occupied OU-1 buildings to show that concentrations of PCE and TCE in indoor air are below acceptable risk levels. Recommended sampling locations are submitted to USEPA in advance, in the form of a sampling plan for review and approval. The recommendations are based on current occupancy status of specified OU-1 buildings and historical indoor air concentrations within that building. The location and frequency of sampling is subject to revision based on review and approval by USEPA. All currently existing buildings within, or partially within the OU-1 boundary are shown on Figure 1. This figure also shows the buildings currently included in the OU-1 indoor air monitoring program. There are no residentially occupied buildings within the OU-1 boundary, only industrially/commercially occupied buildings. Indoor air sampling is only conducted in buildings that are occupied. The occupancy status of existing buildings is verified routinely. The occupancy status and current monitoring schedule for each of the buildings shown on Figure 1 are summarized in Table 1.

- Shallow soil gas data are collected from 16 specified multi-depth VMPs in the shallow vadose zone (between 0 and 30 feet bgs) to show that concentrations of PCE and TCE are declining in the vadose zone, making progress toward achieving the specified soil gas cleanup levels. These data are collected from VMPs and assessed semi-annually as specified in, and in accordance with the USEPA approved soil gas sampling memo (CDM Smith, 2018).[5]

- Deep soil gas data are collected from seven specified multi-depth VMPs in the deep zone (40 – 70 feet bgs) to show that deep soil gas concentrations are declining over

[5] The USEPA approved soil gas sampling memo will serve as the interim Performance Monitoring Plan for the OU-1 SVE system prior to approval of the forthcoming updated OM&M Manual which will contain the final revised PMP.

time. These data are also collected and assessed semi-annually as specified in, and in accordance with the USEPA approved soil gas sampling memo (CDM Smith, 2018).

- Soil concentration data in the shallow vadose zone (0 to 30 feet bgs) will be collected in the future after mutual agreement between USEPA and OPOG. This will occur after shallow soil gas concentrations remain below ROD cleanup levels subsequent to USEPA approved rebound testing.

RAO-compliance monitoring data collected this quarter consist of indoor air data, and shallow and deep soil gas data from the specified VMPs. These data are described below.

5.1. INDOOR AIR COMPLIANCE MONITORING

Indoor air samples were collected in accordance with the USEPA-approved Indoor Air Quality Sampling Plan (de maximis, inc, 2018a). The locations and results of the sampling conducted this quarter are shown on Figure 3. Currently all buildings within the OU-1 boundary are under industrial/commercial use. No indoor air samples collected this quarter contained detectable concentrations of PCE or TCE above USEPA or California Industrial RSLs. This demonstrates continued effective control of PCE and TCE in indoor air at these locations, thereby showing that the Full Scale On-site (OU-1) Soil Remedy is achieving RAO #1. Indoor air analytical results from this quarter are summarized in Attachment A, Table A-1. The status of heating, ventilation, and air conditioning (HVAC) systems and other observations at the time the samples were collected are recorded in Table A-2. The concentrations of PCE and TCE in indoor air samples over time are also shown in time series charts in Attachment A, Figures A-1 through A-8. Ambient air samples were also collected at approved locations to characterize air quality outside specified buildings (Figure A-9); analytical results and time series charts for ambient air are also presented in Attachment A (Table A-3, Figures A-10 through A-13).

Indoor (and ambient air) samples and duplicate samples were sent to Eurofins Air Toxics located in Folsom, California with confirmatory split samples sent to Test America located in Irvine, California. Analytical laboratory reports are provided in Attachment B. Field forms documenting the sample collection are provided in Attachment C.

Formal data validation was performed on 10 percent of the analytical results from the samples analyzed by Eurofins Air Toxics and Test America using the L4 data packages provided by the laboratories. The validation report is presented in Attachment D.

5.2. SOIL GAS COMPLIANCE MONITORING

- Shallow Soil Gas Results

  Analytical results from shallow soil gas samples collected this quarter show that PCE cleanup levels were achieved at all 16 specified shallow locations (Figure 4). TCE cleanup levels were also achieved at all 16 specified locations (Figure 5). These data demonstrate that the Full Scale On-Site (OU-1) Soil Remedy is generally achieving the cleanup levels for PCE and TCE where shallow soil gas was sampled. Cleanup levels may not have yet been achieved at all areas within the OU-1 boundary, and the remedy is ongoing. If locations are identified where cleanup has not yet been achieved, these locations are assessed, and when appropriate, operational conditions are modified to address these locations (e.g., vapor flow and vacuum influence adjustments). Concentrations are known to fluctuate between monitoring periods, and operational adjustments are not always required when a change is observed. The analysis of data collected during this period resulted in several valve adjustments to optimize for RAOs (see Section 6.2). Overall, the Full Scale On-Site (OU-1) Remedy is compliant with the RAOs for shallow soil gas.

  A summary of analytical data collected from the 16 specified shallow compliance-monitoring VMPs this quarter is provided in Attachment E, Table E-1. Time-series charts of historic PCE and TCE concentrations at monitored shallow VMPs are provided in Attachment E, Figures E-3 through E-18. Analytical laboratory reports are in Attachment B.

- Deep Soil Gas Results

  Declining trends in deep soil gas VOC concentrations are used to track progress toward achieving the RAO. A summary of analytical data collected from the seven deep VMPs this quarter is presented in Attachment E, Table E-2. Time series charts of historic PCE and TCE concentrations at monitored deep VMPs are provided in Attachment E, Figures E-19 through E-25. Declining trends in the time series charts demonstrate that the Full Scale On-site (OU-1) Soil Remedy is making progress toward achieving the objective for the deep zone, and is

compliant with RAO #3. Concentrations at some deep VMPs (e.g. VMP-93-60) have demonstrated significant variability between sample collection events. These and all other data will continue to be assessed to determine if optimization should be conducted for a specific location. The sample collected at VMP-31-70 this quarter was not analyzed due to low sample volume. This location has not generated sufficient sample volume for analysis during the last three sampling attempts. Maintenance and replacement options are under review for this location, for resolution prior to the next scheduled sampling event in the first quarter of 2019.

6. OU-1 SVE SYSTEM OPERATIONAL MONITORING

The OU-1 SVE system is monitored to confirm that the system is discharging treated vapor in substantive compliance with SCAQMD regulation, and to verify that the equipment is operating properly. The primary operating components of the OU-1 SVE system are the vacuum blower, the VGAC vessels, the VEWs, and the DPE wells. Treated vapor discharge monitoring is summarized in Section 6.1. VGAC, VEW, and DPE operations, including vacuum influence on VMPs, are summarized in Section 6.2.

6.1. TREATED VAPOR DISCHARGE MONITORING

Although a permit to operate is not required from SCAQMD per CERCLA Section 121, the VGAC is monitored to verify that the emissions are substantively compliant with the limits identified in the HRA (CDM Smith, 2015a).

There are two types of emissions limits: chemical-specific concentrations in VGAC effluent and VGAC operational conditions. The monitoring results for each are summarized below.

- Table 2 shows that the VGAC effluent meets the chemical-specific limits.
- Data in Attachment F, Table F-1 show the following:
  - The VGAC operational conditions meet the limits for flow rate, temperature, and total VOC emissions as indicated by a photo-ionization detector.
  - The carbon changeout criteria were not triggered, and no carbon changeout was

required[6]. The last carbon changeout occurred on January 30, 2018.

- Approximately 23.0 pounds of VOC mass were removed from extracted soil gas this quarter (also see Figure 6).
- Analytical data showing VOC concentrations in vapor at the VGAC influent, midpoint point, and effluent are presented in Table 2. These data show that the VGAC removed VOCs from the extracted soil gas, transferring it to the activated carbon by adsorption.
- VGAC influent concentrations are shown on Figure 7.

6.2. VEW, DPE, AND VACUUM MONITORING

- VEW/DPE Operations

All OU-1 SVE system VEWs and DPE wells were mechanically functional during this quarter. All vapor extraction wells were sampled this quarter for analysis of extracted soil gas by USEPA method TO-15 in accordance with the USEPA-approved soil gas memo (CDM Smith, 2018). Concentrations in extracted vapor have been declining since SVE was initiated in 2010. VEW and DPE operational data are contained in Attachment G and include the following:

- Flow rate, PID, total analytical VOCs, temperature, vacuum, humidity, and calculated mass removed per well (Table G-1);
- A summary of analytical results from wells sampled this quarter (Table G-2);
- Historical PCE and TCE concentrations in vapor from VEWs and DPE wells shown in time series charts (Figures G-1 through G-24); and
- A list of VEW influent manifold valve adjustments recommended during the

[6] The HRA (CDM Smith, 2015a) requires that a carbon changeout occur when the efficiency of the primary adsorber drops below 90 percent and the midpoint VOC concentration exceeds 50 parts per million as hexane. Typically, OPOG elects to replace the carbon preemptively, even if those criteria have not been met, based on the level of desorption observed at the midpoint. Analytical results from monthly VGAC monitoring are reviewed when received from the laboratory, and each month a determination is made whether to change or retain the current carbon load in the lead VGAC vessel (see Attachment F).

quarter to optimize for the RAOs.

- Vacuum Influence

  The extraction wells provided sufficient vacuum influence to continue to remove mass and mitigate vapor migration. Vacuum data are collected from specified shallow and deep VMPs (CDM Smith, 2018). These data provided in Attachment E and include the following:

  - Vacuum influence[7] on shallow VMPs by shallow VEWs (Table E-3, Figure E-1); and
  - Vacuum influence on deep VMPs by deep VEWs and DPE wells (Table E-4, Figure E-2).

6.3. OTHER SOIL GAS DATA COLLECTED

Other analytical and vacuum data collected in accordance with the approved soil gas sampling memo are included in attachment H.

7. SUMMARY OF MONITORING AND RECOMMENDATIONS

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #1 that requires reduction or elimination of vapor intrusion risk. Data collected this quarter show that indoor air concentrations remain below current USEPA RSLs.

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #2 that requires reduction or elimination of the risk from exposure to shallow (0 to 30 feet bgs) soil. The OU-1 SVE system continues to remove mass from the shallow zone.

The Full Scale On-Site (OU-1) Soil Remedy continues to be compliant with RAO #3 that requires reduction or elimination of the risk to groundwater from deep (30 feet bgs and below) soil. The OU-1 SVE system continues to remove mass from the deep zone.

[7] Vacuum is a metric of system adequacy to treat soil at a given distance from a VEW. The operational goal is to achieve a measured vacuum of negative 0.1 inch of water column, gauge in soil within the estimated design radius of influence of the VEWs near occupied buildings.

The OU-1 SVE system operated in accordance with the treated vapor discharge limits established by the HRA, and therefore was substantively compliant with SCAQMD regulations. The system was operational during the quarter except for routine maintenance and minor repairs. No mechanical changes, nor changes to the system treatment process are recommended at this time.

Monitoring data were reviewed, and several adjustments to VEW influent manifold valves were recommended to optimize the SVE system for RAOs.

8. PLANNED ACTIVITIES

Planned activities for the next quarter include the following:

- Routine status calls with USEPA;
- Weekly, monthly, and quarterly OM&M activities;
- Monthly assessment of VGAC effectiveness and need for carbon changeout;
- Monthly VEW/DPE monitoring;
- Quarterly VMP vacuum monitoring;
- Review of PID measurements, analytical results, vacuum, and flow data at extraction wells to assess the need for potential adjustments to optimize for the RAOs;
- Quarterly performance reporting; and
- Continued communication as needed with property owners, tenants, and the city of Whittier regarding access for monitoring, occupancy status of buildings, and other Full Scale On-Site (OU-1) Soil Remedy activities.

9. REFERENCES

CDM. (2007). *Final Human Health Risk Assessment for On-Site Soils.*

CDM Smith. (2015). *Full Scale Soil Vapor Extraction and Groundwater Treatment System Operations, Maintenance, and Monitoring Manual (Draft).*

CDM Smith. (2015a). *Memorandum: Treatment of Effluent from Groundwater Treatment System and Soil Vapor Extraction, Omega Chemical Superfund Site, Whittier, California 90602, February 26.*

CDM Smith. (2018). *DRAFT - Revised 2018 Operable Unit 1 (OU-1) On-site Soil Remedy Soil Gas Monitoring, August 27.*

de maximis, inc. (2018). *Interim Groundwater Containment Remedy, Operable Unit 1, Omega Chemical Superfund Site Quarterly Performance Evaluation Report, August 15.*

de maximis, inc. (2018a). *Quarterly Indoor Air Quality Sampling Plan, August 28.*

USEPA. (2008). *Record of Decision for OU-1 Soils.* USEPA.

USEPA. (2010). *Consent Decree Docket No. 10-05051 dated October 6.*

Table 1
Status of Indoor Air Sampling at Buildings Wholly or Partially within the OU-1 Phase 1a Boundary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Building	Location Designation	Building Occupancy	Vacancy Status Verification	Current Monitoring Status	Date Last Sampled	Next Planned Sampling Date	Sampling Rationale
Former 3 Kings Construction	Within OU-1 Boundary	Occupied	Verified in person 9/28/2018	Previously Monitored	9/14/2005	TBD	- Sampled as part of Remedial Investigation - Building unoccupied since 2005 air sampling - EPA has not requested indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2011 - Staff noticed flyer at building on June 25, 2018, building believed to be purchased by Jones RE (commercial real estate) for lease, minor modifications/renovation observed. - Currently leased to Sunland, Division of E&A Car Wash Systems. Occupancy and use being evaluated.
Bishop	Partly within OU-1 Boundary	Occupied	Verified in person 9/28/2018	Quarterly	9/11/2018	November 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Proposed reduction of sampling frequency to semi-annual, based upon significant data/history of monitoring, was conditionally approved by EPA on April 4, 2018; however, change to sampling frequency has not been instated.
Madsen Roofing	Within OU-1 Boundary	Partially Occupied	Verified in person 9/28/2018	Semi-Annual	9/11/2018	February 2019	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Proposed reduction of sampling frequency to annual, based upon significant data/history of monitoring, was conditionally approved by EPA on April 4, 2018; however, change to sampling frequency has not been instated.
Star City Auto Body	Within OU-1 Boundary	Occupied	Verified in person 9/28/2018	Semi-Annual	9/11/2018	February 2019	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Proposed reduction of sampling frequency to annual, based upon significant data/history of monitoring, was conditionally approved by EPA on April 4, 2018; however, change to sampling frequency has not been instated.
Terra Pave	Within OU-1 Boundary	Partially Occupied	Verified in person 9/26/2018	Quarterly	9/11/2018	November 2018	- Required indoor air sampling under the 2009 AOC - Under influence of soil vapor extraction since 2010 - Proposed reduction of sampling frequency to semi-annual, based upon significant data/history of monitoring, was conditionally approved by EPA on April 4, 2018; however, change to sampling frequency has not been instated.

Notes:

TBD = To be determined after additional discussion with EPA.

Table 2
Vapor Phase GAC Analytical Data Demonstrating Substantive Compliance With SCAQMD Regulations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

SCAQMD Chemical-Specific Effluent Limit[1]			2,208	198	84	15	14	48	1,082	65
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**VC**	**11DCA**	**12DCA**	**CF**	**MeC**	**BEN**
SVE1 GAC INFLUENT	7/2/2018	ppbv	130	9	1.2 U	1.2 U	1.2 U	1.2 U	12 U	1.2 U
SVE1 GAC MIDPOINT	7/2/2018	ppbv	1.3 U	1.3 U	1.3 U	1.3 U	1.5	1.3	13 U	1.3 U
SVE1 GAC EFFLUENT[2]	7/2/2018	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**
SVE1 GAC INFLUENT	8/6/2018	ppbv	170	8.6	1.3 U	1.3 U	1.3 U	1.3 U	13 U	1.3 U
SVE1 GAC MIDPOINT	8/6/2018	ppbv	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	13 U	1.3 U
SVE1 GAC EFFLUENT	8/6/2018	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**
SVE1 GAC INFLUENT	9/4/2018	ppbv	190	8.7	1.3 U	1.3 U	1.3 U	1.3 U	13 U	1.3 U
SVE1 GAC MIDPOINT	9/4/2018	ppbv	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.5	12 U	1.2 U
SVE1 GAC EFFLUENT	9/4/2018	ppbv	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**1.2 U**	**12 U**	**1.2 U**
Compliance with Effluent Limits?			**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**

Notes:

1. SCAQMD effluent limits are in parts per billion volume (ppbv) and are derived from the Health Risk Assessment (CDM Smith, 2015)

2. Bold text indicates vapor effluent results from the Vapor Phase GAC effluent required to meet SCAQMD HRA chemical specific limits shown in the table.

SVE1 GAC Influent = VOC-laden vapor sample collected at the influent to the lead Vapor Phase GAC vessel.

SVE1 GAC Midpoint = Partially treated vapor sample collected between the lead and lag Vapor Phase GAC vessels.

SVE1 GAC Effluent = Fully treated vapor sample collected at the effluent from lag (polishing) Vapor Phase GAC vessel.

SCAQMD HRA Limit = South Coast Air Quality Management District Health Risk Assessment permitted concentration limit in ppbv. Limits are based on the HRA (CDM Smith, 2015)

U - Not detected above reporting limit listed

PCE - Tetrachloroethene
TCE - Trichloroethene
VC - Vinyl Chloride
11DCA - 1,1-Dichloroethane
12DCA - 1,2-Dichloroethane
CF - Chloroform
MeC - Methylene Chloride
BEN - Benzene

OU-1 Boundary
Building Currently Commercially/Industrially Occupied
Building Currently Vacant
Former Omega Chemical Property Boundary

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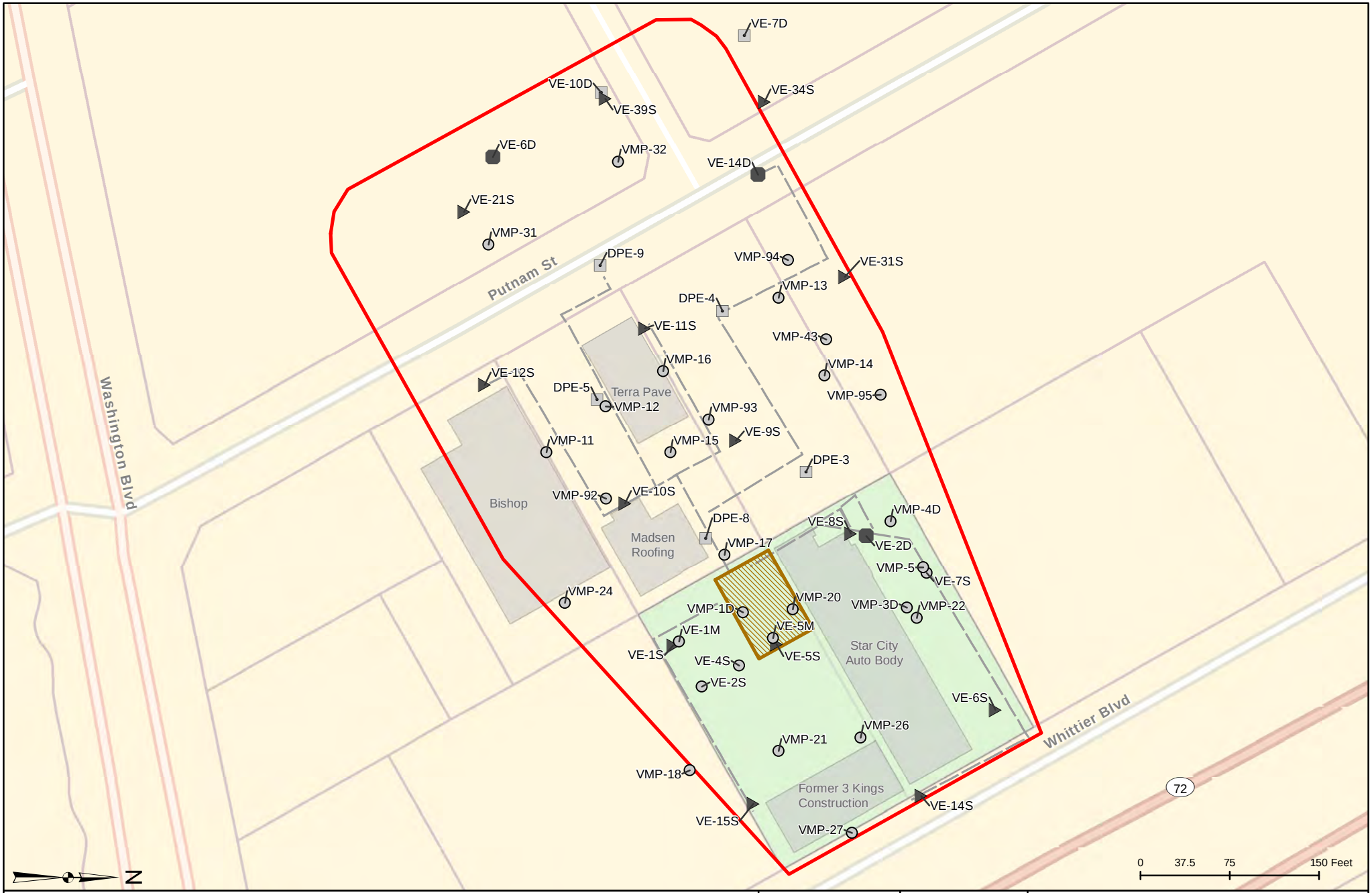
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 11/13/2018

Figure 1
OU-1 Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
12504/12512 East Whittier Boulevard
Whittier, California



Shallow Vapor Extraction Well (<30ft bgs)	Vapor Monitoring Probe
Deep Vapor Extraction Well (>30ft bgs)	OU-1 SVE Treatment Plant
Dual Phase Extraction Well	OU-1 Boundary
Building Currently Commercially/Industrially Occupied	Former Omega Chemical Property Boundary
Building Currently Vacant	Conveyance Piping

System components as of 3rd quarter 2018; subject to change. Not all conveyance piping shown. Locations are approximate.

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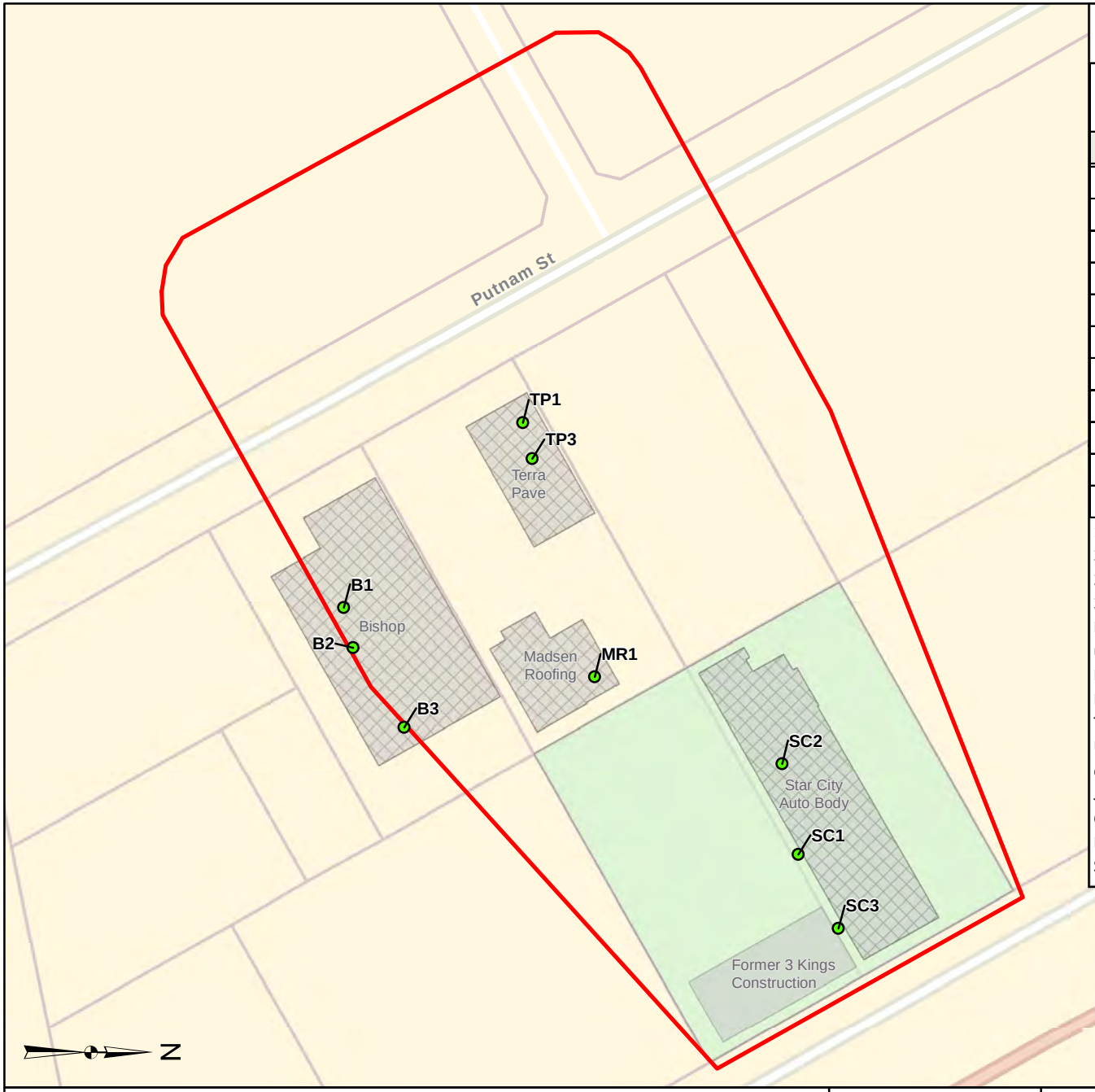
Reviewed By: MH
Drawn By: LEM
Date: 10/22/2018

Figure 2
OU-1 SVE System Location Map
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



Indoor Air Sampling Results

Sample ID	Sample Type	Date	PCE		TCE
RSLs (Industrial/Residential)			47/11[1]	2.0/0.46[2]	3/0.48[1,3]
B1	ORIG	9/11/2018	0.21 U		0.17 U
B1	DUP	9/11/2018	0.22 U		0.18 U
B2	ORIG	9/11/2018	0.40		0.19 U
B3	ORIG	9/11/2018	0.23 U		0.18 U
MR1	ORIG	9/11/2018	0.23 U		0.18 U
SC1	ORIG	9/11/2018	0.46 U		0.36 U
SC2	ORIG	9/11/2018	2.2 U		1.8 U
SC3	ORIG	9/11/2018	0.21 U		0.17
TP1	ORIG	9/11/2018	0.22 U		0.45
TP1	SPLIT	9/11/2018	0.12 J		0.034 J
TP3	ORIG	9/11/2018	0.22 U		0.18 U

1. http://www.epa.gov/region9/superfund/prg/
2. https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note_3_August-2017.pdf
3. http://www.dtsc.ca.gov/AssessingRisk/upload/HHRA_Note5-pdf.pdf. DTSC generally relies on the EPA Region 9 RSLs for TCE in indoor air.

ug/m3 = micrograms per cubic meter of air
RSL = Regional Screening Level
PCE = Tetrachloroethene
TCE = Trichloroethene
U = chemical not detected above the level of the reported sample quantitation limit.
J = quantitatively estimated
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

- Indoor Air Sample that achieves USEPA and California Industrial RSLs
- OU-1 Boundary
- Former Omega Chemical Property Boundary
- Building Currently Commercially/Industrially Occupied; Sampled This Quarter
- Building Currently Commercially/Industrially Occupied; Not Sampled This Quarter

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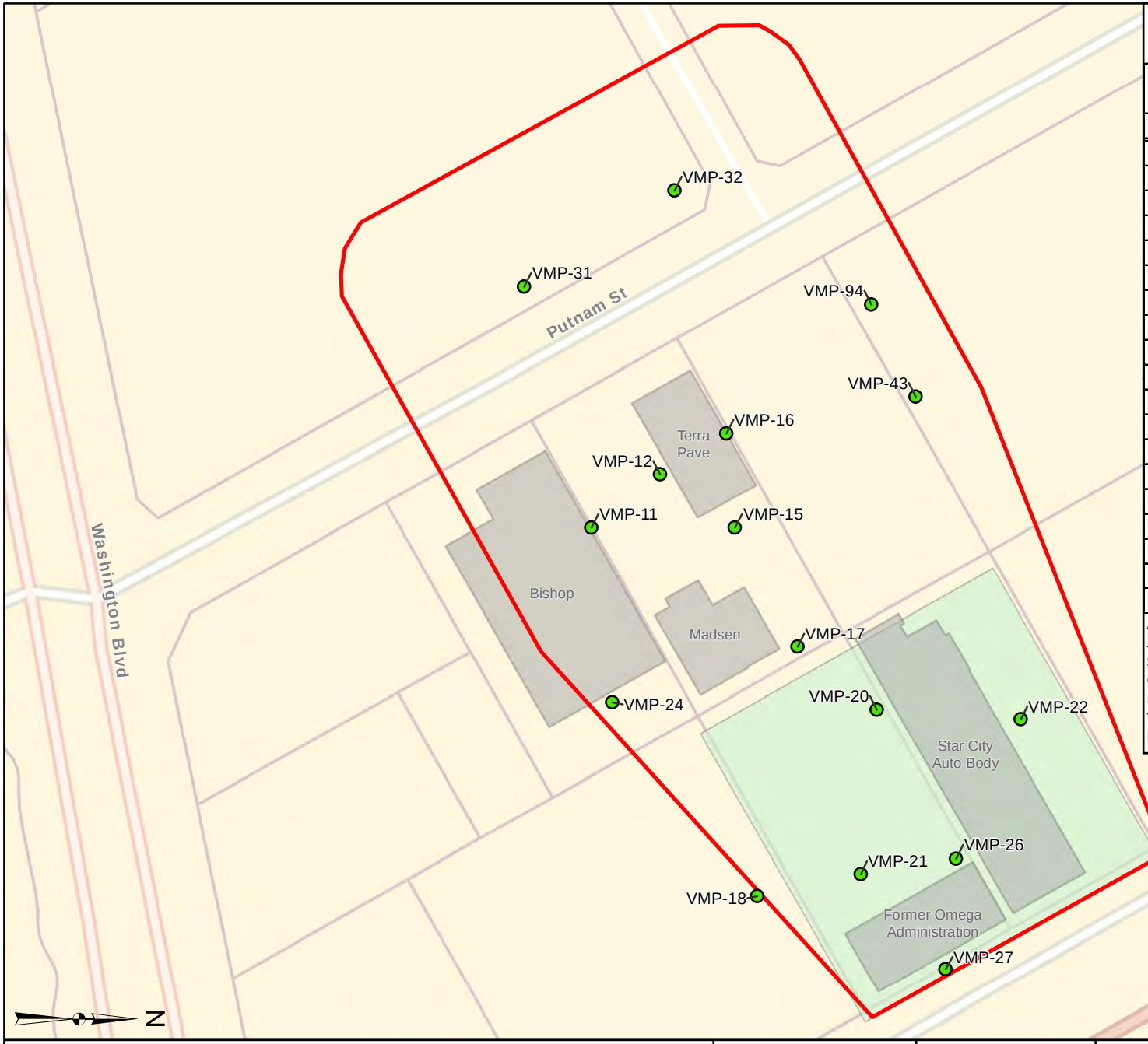
de maximis, inc.

Reviewed By: MC
Drawn By: LEM
Date: 10/20/2018

Figure 3
Indoor Air Concentrations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018



Shallow Vapor Monitoring Probe Analytical Data and Cleanup Level

Location	Sample Type	Sample Date	PCE
		Cleanup Level	470
VMP-11-30	ORIG	9/18/2018	44 J
VMP-12-30	ORIG	9/18/2018	74 J
VMP-15-30	ORIG	9/18/2018	24 J
VMP-16-30	ORIG	9/18/2018	240 J
VMP-17-30	ORIG	9/18/2018	55 J
VMP-18-30	ORIG	9/17/2018	250 J
VMP-20-30	ORIG	9/17/2018	150 J
VMP-21-30	ORIG	9/17/2018	330 J
VMP-22-30	ORIG	9/18/2018	96 J
VMP-24-30	ORIG	9/17/2018	140 J
VMP-26-30	ORIG	9/17/2018	110 J
VMP-27-30	ORIG	9/17/2018	130 J
VMP-31-24	ORIG	9/18/2018	42 J
VMP-31-24	DUP	9/18/2018	55 J
VMP-32-24	ORIG	9/18/2018	38 J
VMP-32-24	DUP	9/18/2018	55 J
VMP-43-24	ORIG	9/18/2018	45 J
VMP-94-24	ORIG	9/18/2018	87 J
VMP-94-24	DUP	9/18/2018	63 J

All concentrations in units of ug/m3
J = results qualified as estimated
SHALLOW = between 0 and 30 feet below ground surface
ORIG = original sample
DUP = field duplicate
The last two digits of each Location indicate the depth of the sample in feet
PCE = Tetrachloroethene

< 470 ug/m3 at all sampled depths; achieves cleanup level for PCE

> 470 ug/m3 at any sampled depth; does not achieve cleanup level for PCE

Building Currently Commercially/Industrially Occupied

OU-1 Boundary

Former Omega Property

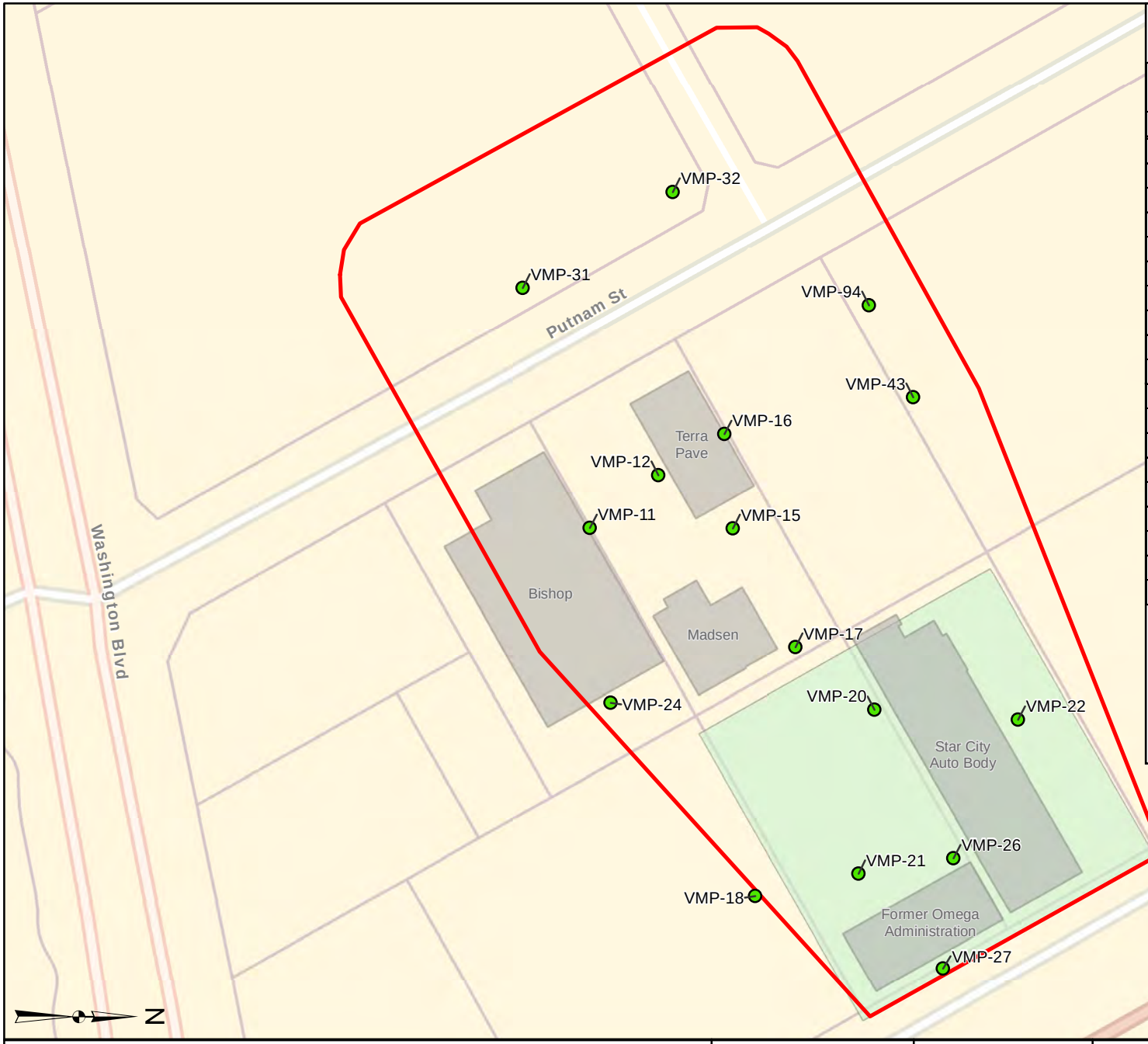
1. Shallow Vapor Monitoring Probes are installed between 0 and 30 feet below land surface.

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 11/1/2018

Figure 4
PCE Concentrations in Shallow Soil Gas[1] Demonstrating Compliance with Cleanup Level
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018



Shallow Vapor Monitoring Probe Analytical Data and Cleanup Level

Location	Sample Type	Sample Date	TCE
		Cleanup Level	1300
VMP-11-30	ORIG	9/18/2018	6.6 U
VMP-12-30	ORIG	9/18/2018	6.5 U
VMP-15-30	ORIG	9/18/2018	6.2 U
VMP-16-30	ORIG	9/18/2018	6.3 U
VMP-17-30	ORIG	9/18/2018	6.2 U
VMP-18-30	ORIG	9/17/2018	39
VMP-20-30	ORIG	9/17/2018	11 U
VMP-21-30	ORIG	9/17/2018	19
VMP-22-30	ORIG	9/18/2018	6.4 U
VMP-24-30	ORIG	9/17/2018	6.3 U
VMP-26-30	ORIG	9/17/2018	6.6 U
VMP-27-30	ORIG	9/17/2018	6.9 U
VMP-31-24	ORIG	9/18/2018	6.4 U
VMP-31-24	DUP	9/18/2018	6.6 U
VMP-32-24	ORIG	9/18/2018	6.2 U
VMP-32-24	DUP	9/18/2018	6.4 U
VMP-43-24	ORIG	9/18/2018	6.3 U
VMP-94-24	ORIG	9/18/2018	6.4 U
VMP-94-24	DUP	9/18/2018	6.2 U

All concentrations in units of ug/m3
U = chemical not detected above the level of the reported sample quantitation limit.
SHALLOW = between 0 and 30 feet below ground surface
The last two digits of each Location indicate the depth of the sample in feet
ORIG = original sample
DUP = field duplicate
TCE = Trichloroethene

< 1300 ug/m3 at all sampled depths; achieves cleanup level for TCE

> 1300 ug/m3 at any sampled depth; does not achieve cleanup level for TCE

Building Currently Commercially/Industrially Occupied

OU-1 Boundary

Former Omega Property

1. Shallow Vapor Monitoring Probes are installed between 0 and 30 feet below land surface.

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/21/2018

Figure 5
TCE Concentrations in Shallow Soil Gas[1] Demonstrating Compliance with Cleanup Level
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018

Figure 6
OU-1 SVE System Cumulative Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

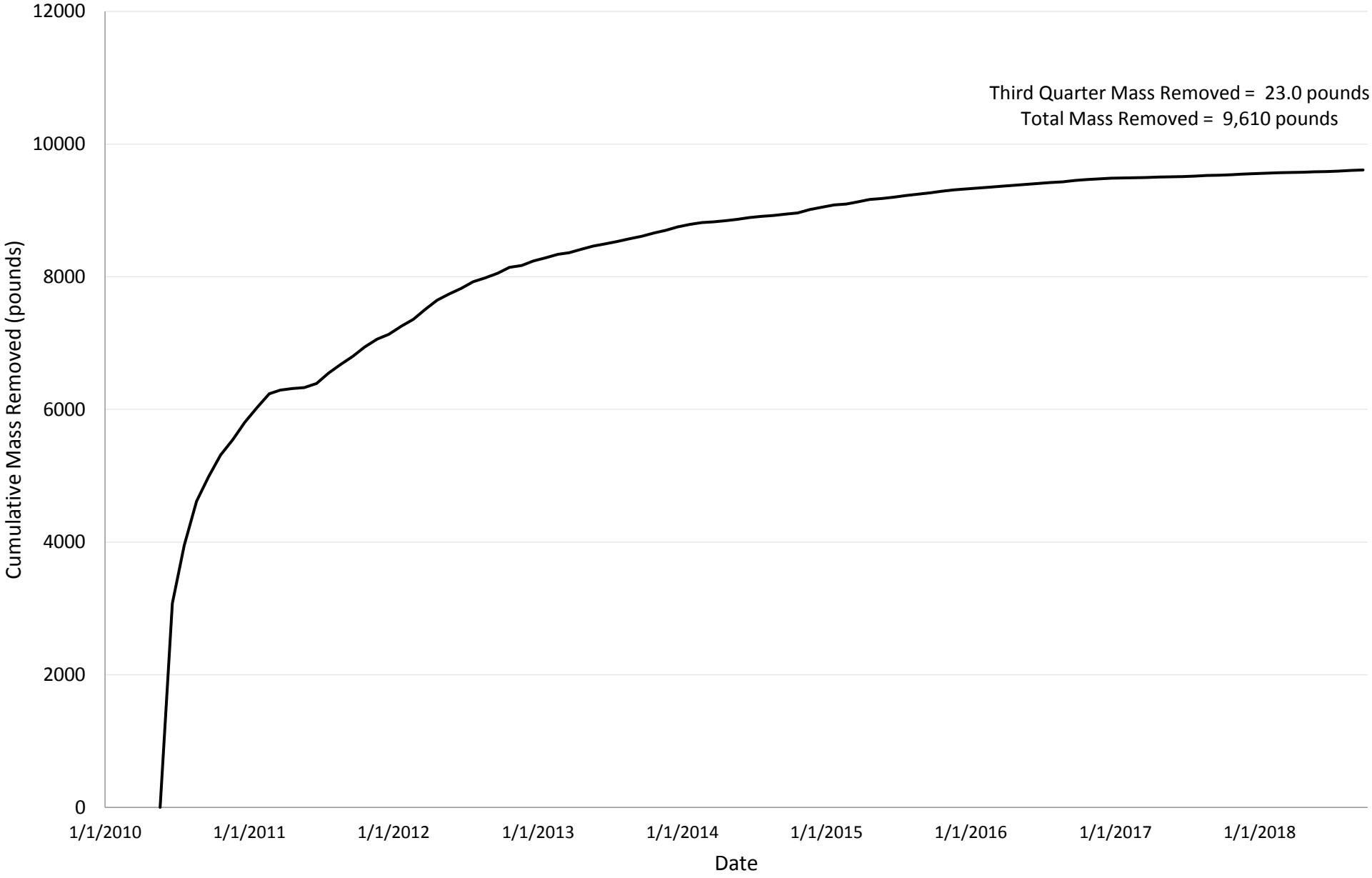
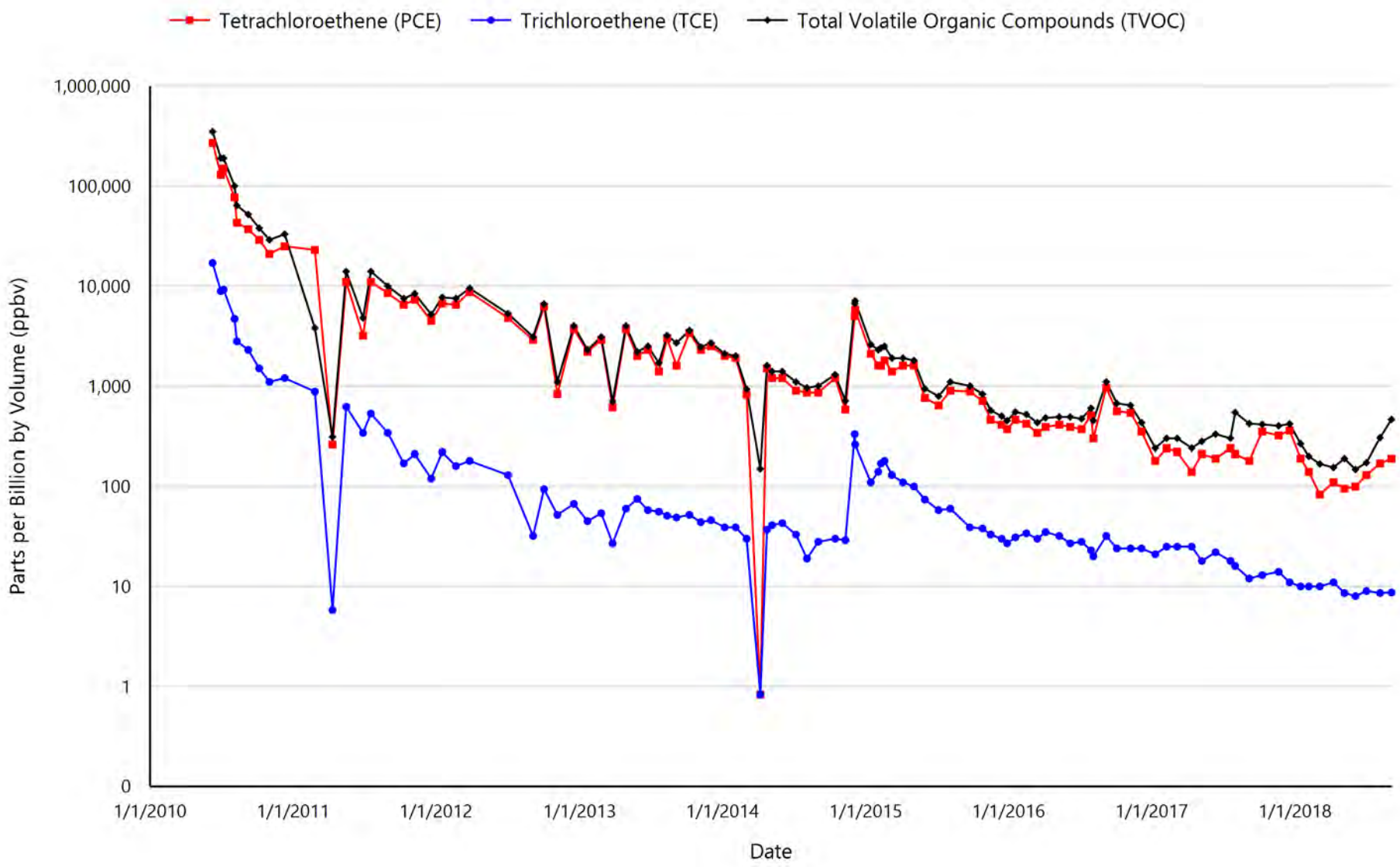


Figure 7
Vapor Phase GAC Influent Concentrations
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018



Attachment A

Summary of Indoor and Ambient Air Concentrations

Attachment A, Table A-1
Indoor Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Sample ID	IAQ_B1_091118 (B1)	IAQ_B1_091118K (B1)	IAQ_B2_091118 (B2)	IAQ_B3_091118 (B3)
SDG	1809221A	1809221A	1809221A	1809221A
Sample Location	IAQ-BISHOP-01	IAQ-BISHOP-01	IAQ-BISHOP-02	IAQ-BISHOP-03
Building ID	BISHOP	BISHOP	BISHOP	BISHOP
Sample Type	ORIG	DUP	ORIG	ORIG
Date	Sep 11, 2018	Sep 11, 2018	Sep 11, 2018	Sep 11, 2018
Parameter				
1,1,2,2-Tetrachloroethane	0.21 U	0.22 U	0.24 U	0.23 U
Tetrachloroethene (PCE)	0.21 U	0.22 U	0.40	0.23 U
Trichloroethene (TCE)	0.17 U	0.18 U	0.19 U	0.18 U
1,1,1-Trichloroethane (TCA)	0.17 U	0.18 U	0.19	0.18 U
1,1,2-Trichloroethane	0.17 U	0.18 U	0.19 U	0.18 U
1,1-Dichloroethene	0.061 U	0.065 U	0.070 U	0.066 U
1,1-Dichloroethane	0.12 U	0.13 U	0.14 U	0.14 U
1,2-Dichloroethane	0.12 U	0.13 U	0.20	0.14 U
cis-1,2-Dichloroethene	0.12 U	0.13 U	0.14 U	0.13 U
trans-1,2-Dichloroethene	0.61 U	0.65 U	0.70 U	0.66 U
trans-1,3-Dichloropropene	0.14 U	0.15 U	0.16 U	0.15 U
Carbon tetrachloride	0.54	0.54	0.51	0.50
Chloroform	0.20 J,N	0.19 J,N	0.27 J,N	0.18 J,N
Methylene chloride	1.2	1.2	1.3	1.3
Freon 11	1.4	1.4	1.4	1.4
Freon 113	0.55	0.55	0.57	0.55
Freon 12	2.3	2.2	2.2	2.2
Vinyl chloride	0.040 U	0.042 U	0.045 U	0.043 U
Acetone	32	29	160	37
Benzene	0.62	0.60	2.8	0.71
Toluene	1.7	1.6	30	4.0
Ethylbenzene	0.25	0.24	5.6	0.47
m,p-Xylene	0.60	0.63	23	1.3
o-Xylene	0.29	0.25	7.6	0.57
1,2-Dichlorobenzene	0.19 U	0.20 U	0.21 U	0.20 U
1,4-Dichlorobenzene	0.19 U	0.20 U	0.21 U	0.20 U
Chlorobenzene	0.14 U	0.15 U	0.16 U	0.15 U
Methyl Tert-Butyl Ether	0.56 U	0.59 U	0.64 U	0.60 U

U = chemical not detected. Lab detection limit for chemical is listed.
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

Attachment A, Table A-1
Indoor Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Sample ID	IAQ_MR1_091118 (MR1)	IAQ_SC1_091118 (SC1)	IAQ_SC2_091118 (SC2)	IAQ_SC3_091118 (SC3)
SDG	1809221A	1809221A	1809221A	1809221A
Sample Location	IAQ-MR-01	IAQ-SC-01	IAQ-SC-02	IAQ-SC-03
Building ID	MADSEN ROOFING	STAR CITY AUTO BODY	STAR CITY AUTO BODY	STAR CITY AUTO BODY
Sample Type	ORIG	ORIG	ORIG	ORIG
Date	Sep 11, 2018	Sep 11, 2018	Sep 11, 2018	Sep 11, 2018
Parameter				
1,1,2,2-Tetrachloroethane	0.23 U	0.46 U	2.2 U	0.22 U
Tetrachloroethene (PCE)	0.23 U	0.46 U	2.2 U	0.21 U
Trichloroethene (TCE)	0.18 U	0.36 U	1.8 U	0.17
1,1,1-Trichloroethane (TCA)	0.18 U	0.37 U	1.8 U	0.17 U
1,1,2-Trichloroethane	0.18 U	0.37 U	1.8 U	0.17 U
1,1-Dichloroethene	0.067 U	0.13 U	0.65 U	0.063 U
1,1-Dichloroethane	0.14 U	0.27 U	1.3 U	0.13 U
1,2-Dichloroethane	0.14 U	0.27 U	1.3 U	0.40
cis-1,2-Dichloroethene	0.13 U	0.27 U	1.3 U	0.12 U
trans-1,2-Dichloroethene	0.67 U	1.3 U	6.5 U	0.63 U
trans-1,3-Dichloropropene	0.15 U	0.30 U	1.5 U	0.14 U
Carbon tetrachloride	0.50	0.51	2.0 U	0.59
Chloroform	0.21 J,N	0.33 U	1.6 U	0.15 U
Methylene chloride	1.4	2.4	11 U	2.1
Freon 11	1.4	1.4 J+	1.8 U	1.4 J+
Freon 113	0.57	0.52 U	2.5 U	0.51
Freon 12	2.2	2.4	3.1	2.3
Vinyl chloride	0.043 U	0.086 U	0.42 U	0.040 U
Acetone	46	910 J	5700 J	280 J
Benzene	1.1	1.3	3.7	0.66
Toluene	4.9	21	33	17
Ethylbenzene	0.84	1.5	13	1.6
m,p-Xylene	2.8	5.4	53	5.4
o-Xylene	1.1	1.9	13	2.0
1,2-Dichlorobenzene	0.20 U	0.40 U	2.0 U	0.19 U
1,4-Dichlorobenzene	0.20 U	0.40 U	2.0 U	0.19 U
Chlorobenzene	0.15 U	0.31 U	1.5 U	0.14 U
Methyl Tert-Butyl Ether	0.60 U	1.2 U	5.9 U	0.57 U

U = chemical not detected. Lab detection limit for chemical is listed.
J = results are qualified as estimated
J+ = result is an estimated quantity, but the result may be biased high
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

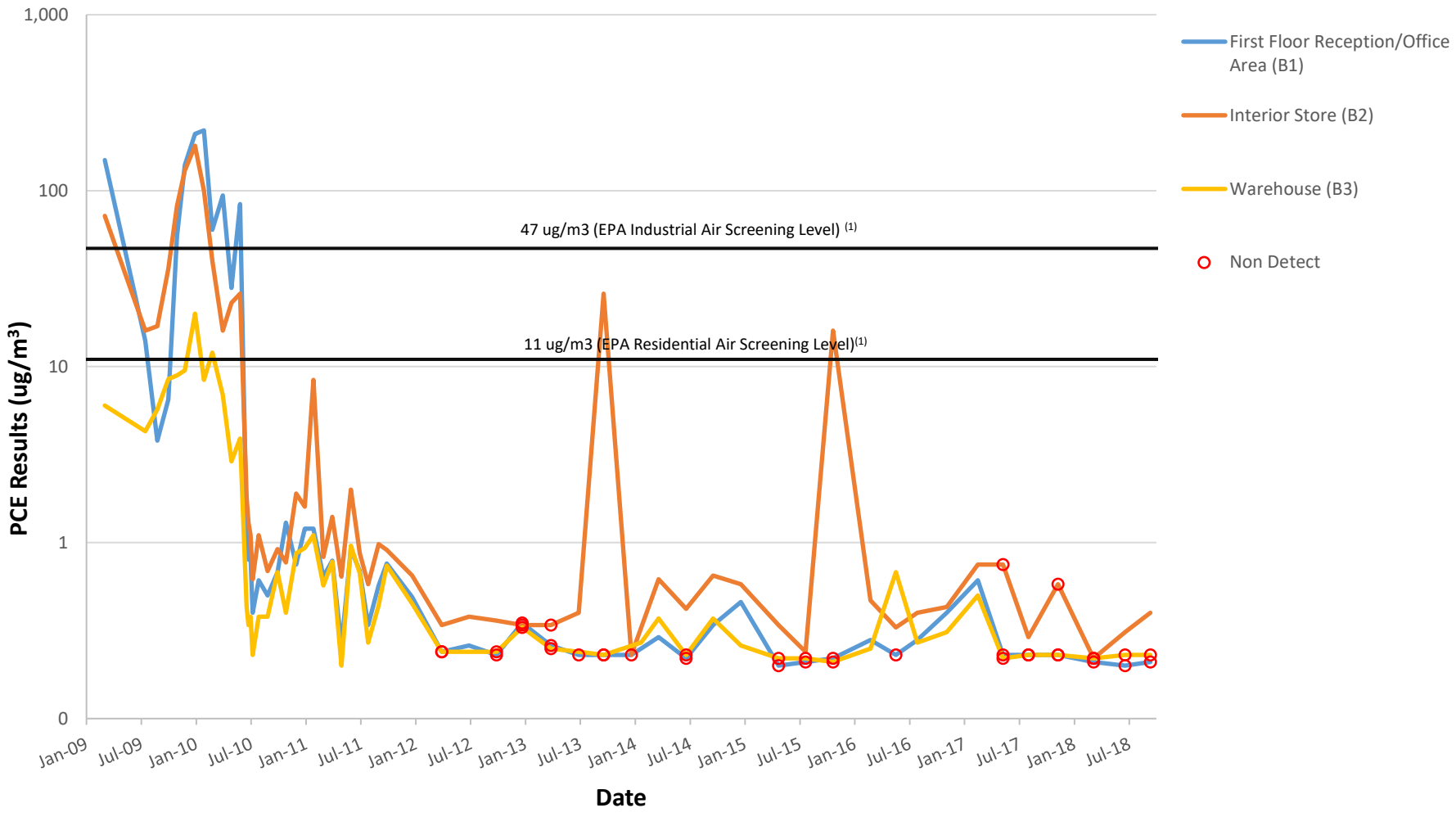
Attachment A, Table A-1
Indoor Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Sample ID	IAQ_TP1_091118 (TP1)	IAQ_TP1_091118K2 (TP1)	IAQ_TP3_091118 (TP3)
SDG	1809221A	440-220005-1	1809221A
Sample Location	IAQ-TP-01	IAQ-TP-01	IAQ-TP-03
Building ID	TERRA PAVE	TERRA PAVE	TERRA PAVE
Sample Type	ORIG	SPLIT	ORIG
Date	Sep 11, 2018	Sep 11, 2018	Sep 11, 2018
Parameter			
1,1,2,2-Tetrachloroethane	0.22 U	0.14 U	0.22 U
Tetrachloroethene (PCE)	0.22 U	0.12 J	0.22 U
Trichloroethene (TCE)	0.45	0.034 J	0.18 U
1,1,1-Trichloroethane (TCA)	0.18 U	0.11 U	0.18 U
1,1,2-Trichloroethane	0.18 U	0.27 U	0.18 U
1,1-Dichloroethene	0.064 U	0.079 U	0.065 U
1,1-Dichloroethane	0.13 U	0.081 U	0.13 U
1,2-Dichloroethane	0.13 U	0.058 J	0.13 U
cis-1,2-Dichloroethene	0.13 U	0.079 U	0.13 U
trans-1,2-Dichloroethene	0.64 U	0.079 U	0.65 U
trans-1,3-Dichloropropene	0.15 U	0.091 U	0.15 U
Carbon tetrachloride	0.50	0.90 U	0.53
Chloroform	0.21 J,N	0.12	0.16 U
Methylene chloride	1.1 U	0.69 U	1.1 U
Freon 11	1.4	1.3	1.4 J+
Freon 113	0.55	0.50	0.50
Freon 12	2.2	1.3 U	2.4
Vinyl chloride	0.041 U	0.051 U	0.042 U
Acetone	23	30	25
Benzene	2.8 J	1.9 J	10 J
Toluene	12	11	71
Ethylbenzene	1.5	1.8	11
m,p-Xylene	5.4 J	7.3 J	48 J
o-Xylene	1.8 J	2.6 J	16 J
1,2-Dichlorobenzene	0.19 U	0.30 U	0.20 U
1,4-Dichlorobenzene	0.19 U	0.061 J	0.20 U
Chlorobenzene	0.15 U	0.092 U	0.15 U
Methyl Tert-Butyl Ether	0.58 U	0.090 U	0.59 U

U = chemical not detected. Lab detection limit for chemical is listed.
J = results are qualified as estimated
J+ = result is an estimated quantity, but the result may be biased high
J,N = quantitatively estimated and presumptively present

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample
DUP = field duplicate
SPLIT = split sample

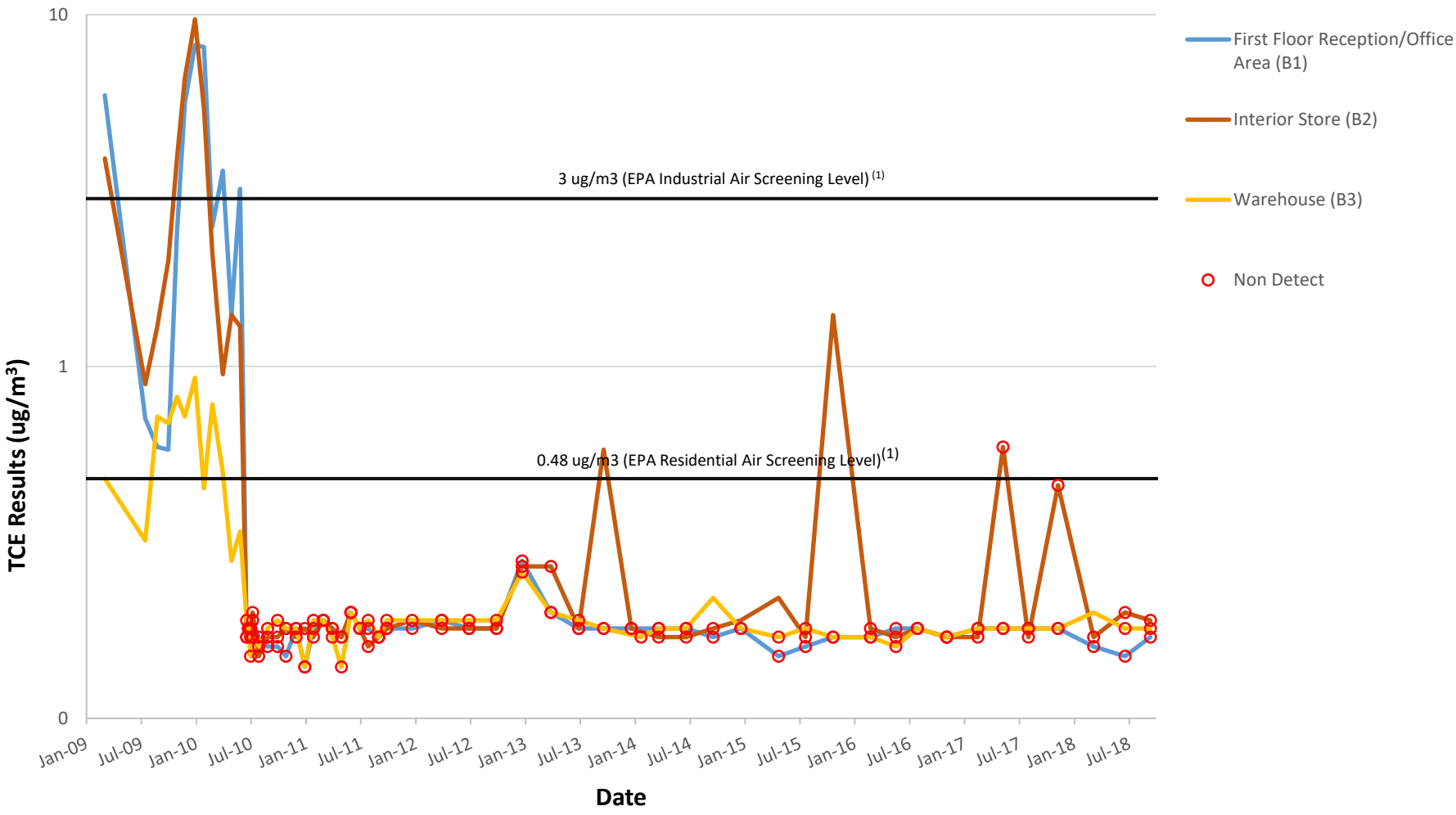
Attachment A, Figure A-1
Indoor Air Quality Tetrachloroethene (PCE) Results
Bishop Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

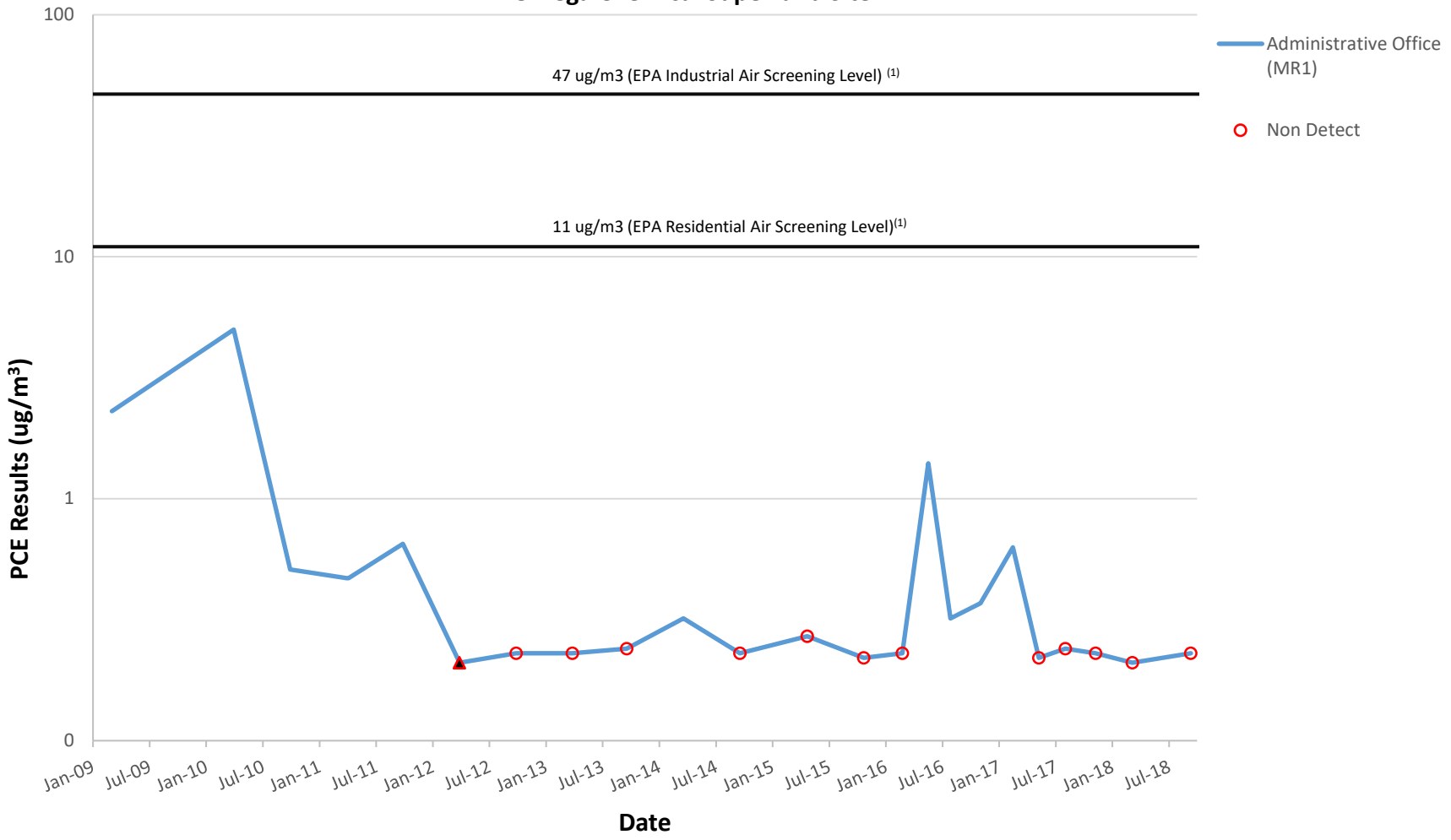
Attachment A, Figure A-2
Indoor Air Quality Trichloroethene (TCE) Results
Bishop Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

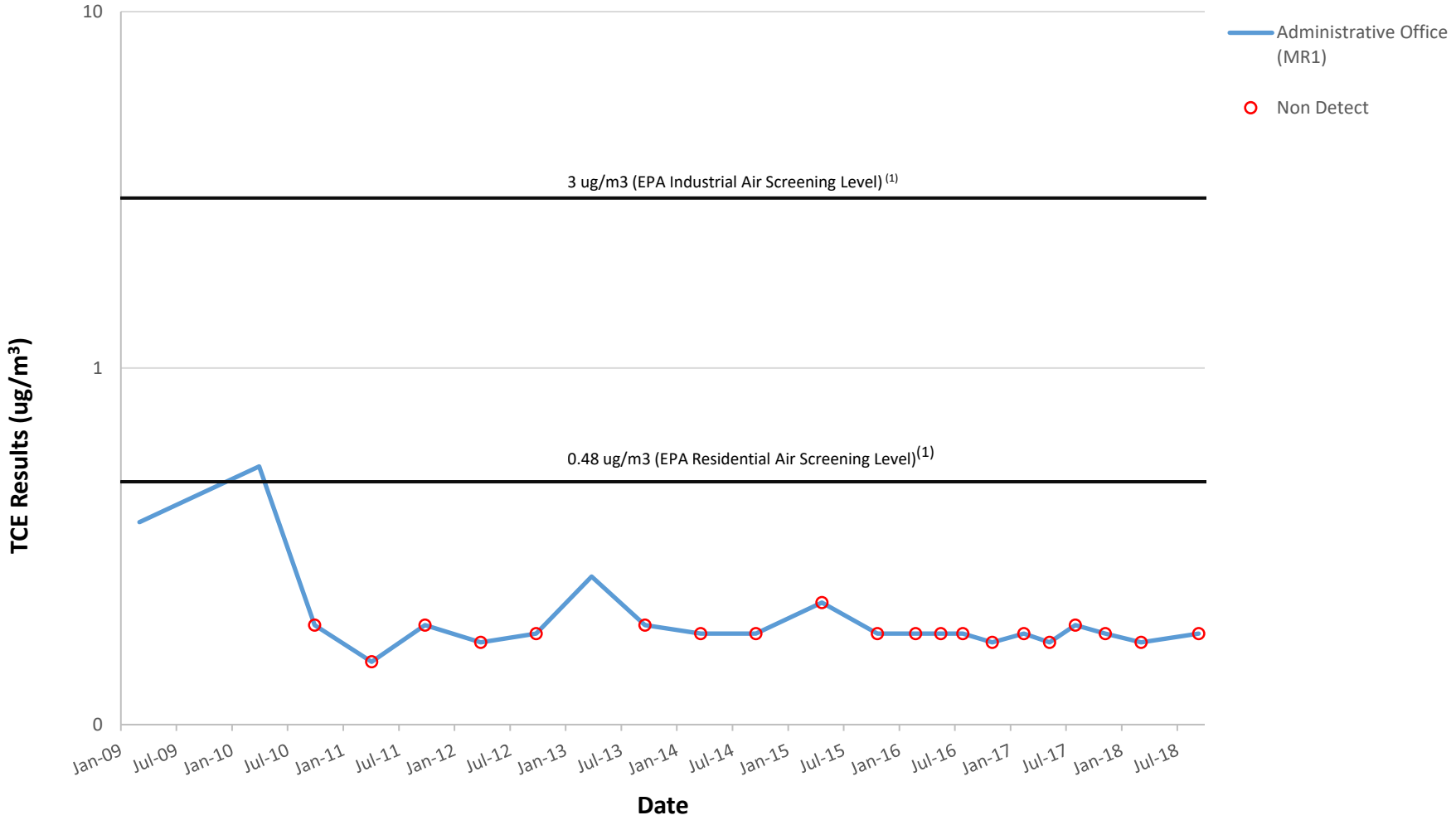
Attachment A, Figure A-3
Indoor Air Quality Tetrachloroethene (PCE) Results
Madsen Roofing Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

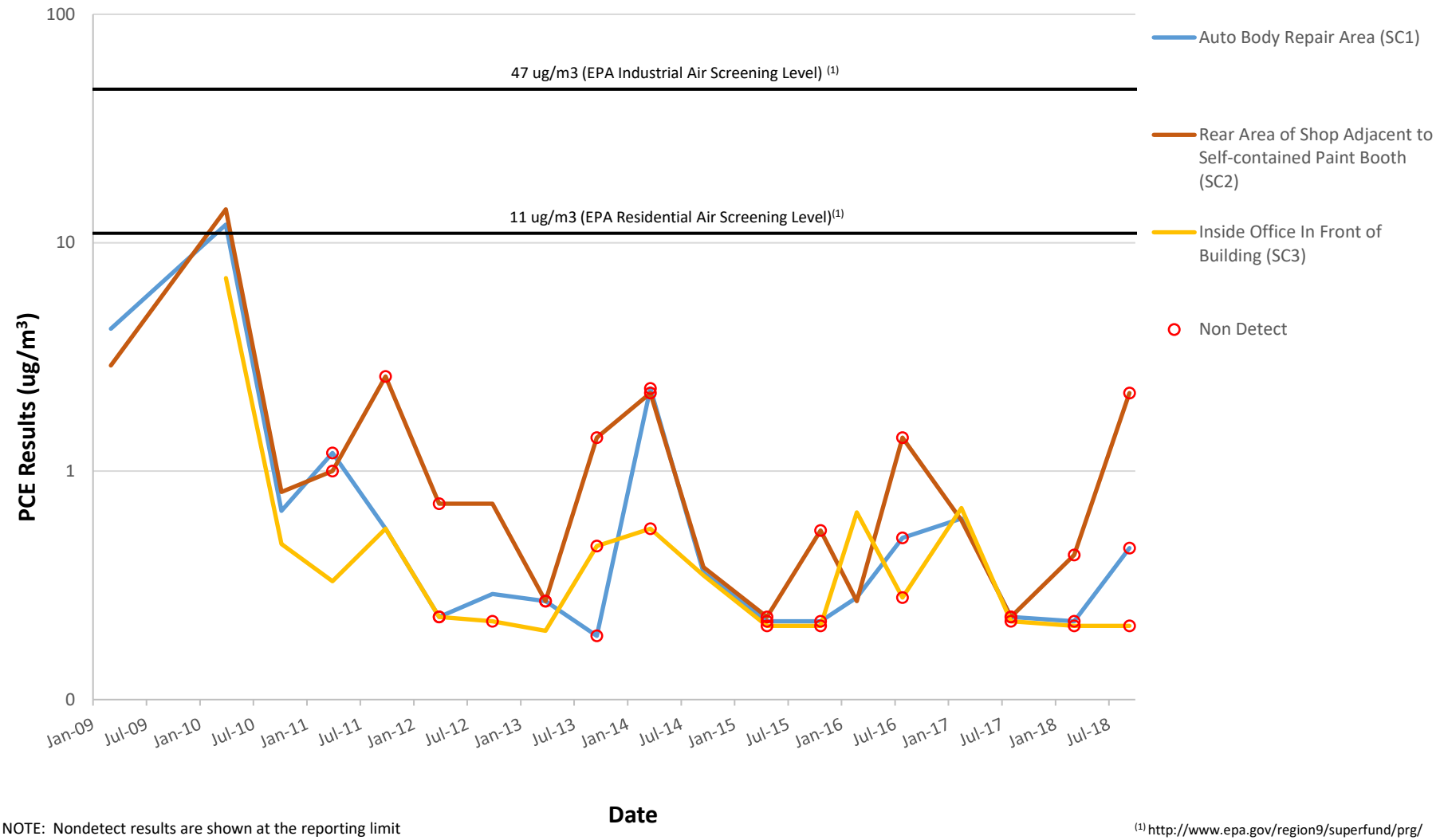
Attachment A, Figure A-4
Indoor Air Quality Tetrachloroethene (TCE) Results
Madsen Roofing Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

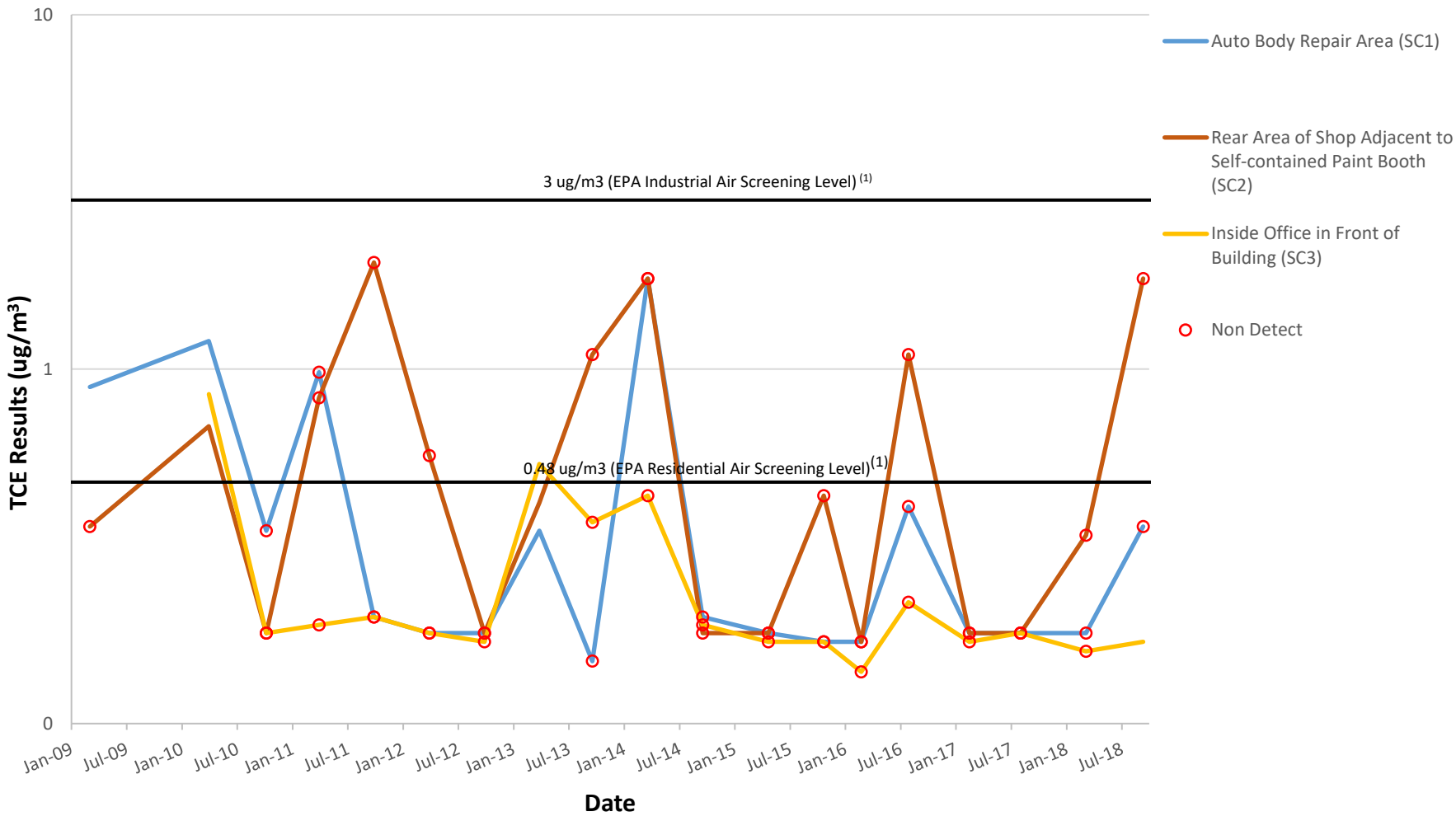
Attachment A, Figure A-5
Indoor Air Quality Tetrachloroethene (PCE) Results
Star City Auto Body Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

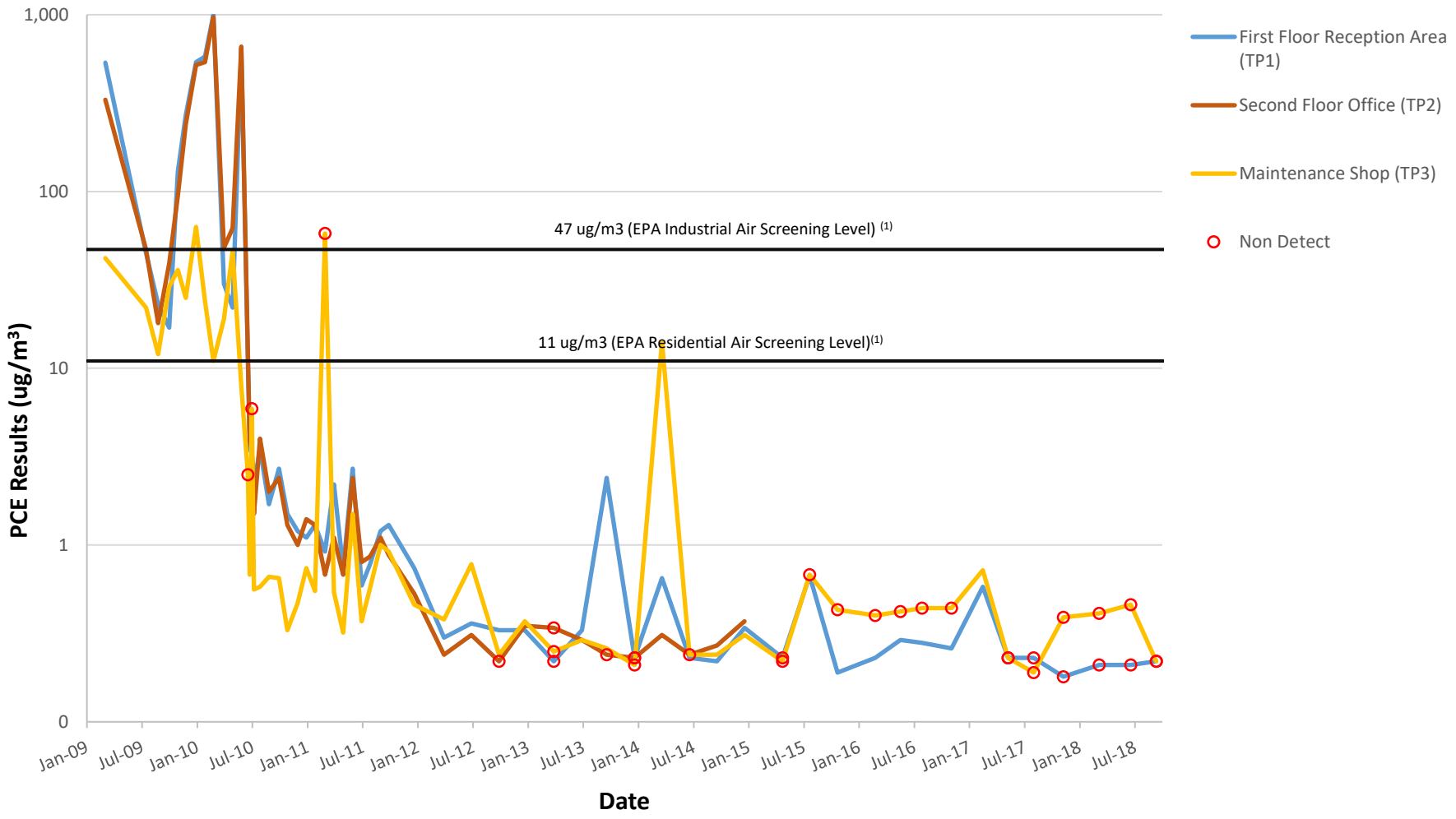
Attachment A, Figure A-6
Indoor Air Quality Trichloroethene (TCE) Results
Star City Auto Body Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

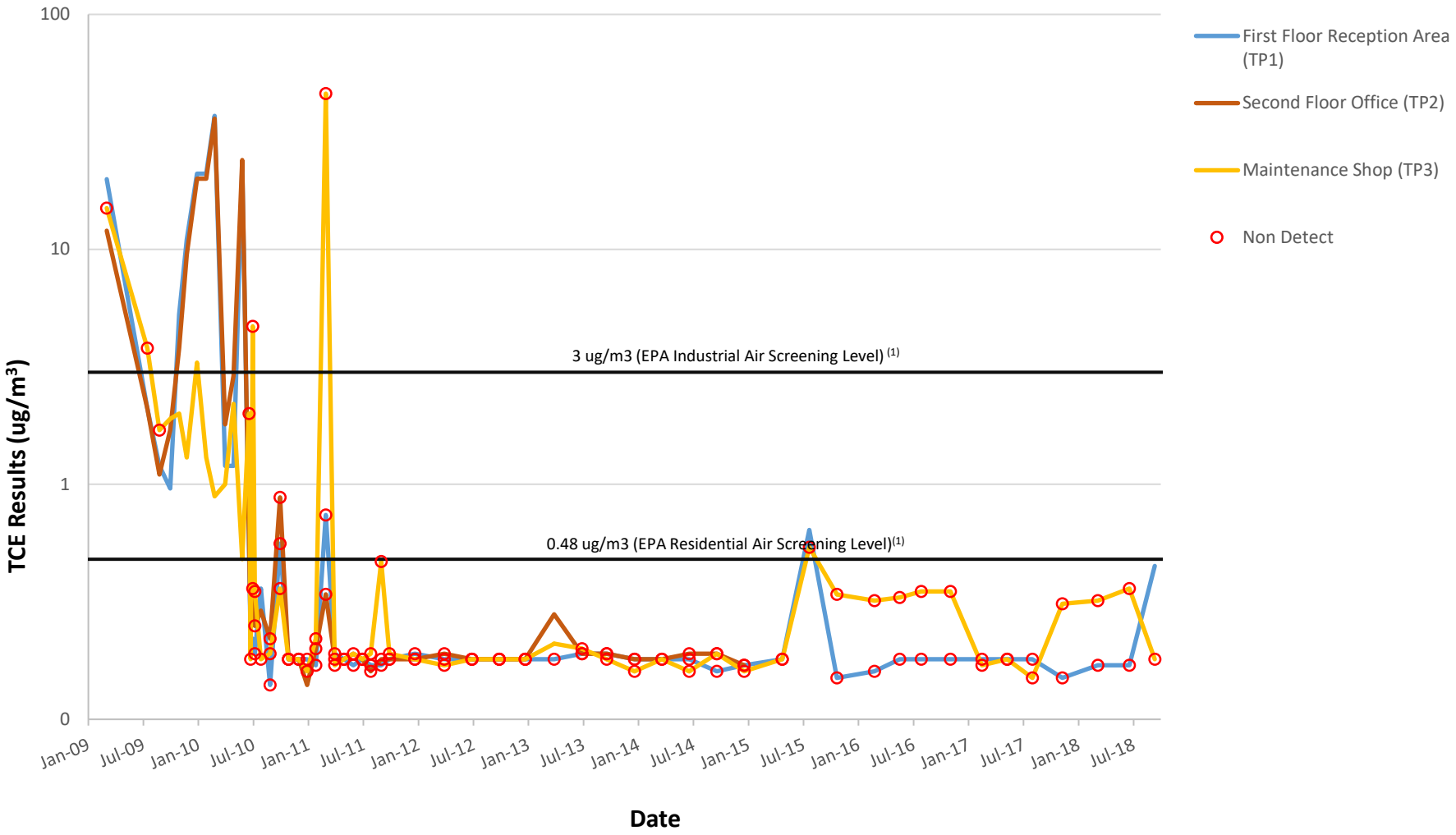
Attachment A, Figure A-7
Indoor Air Quality Tetrachloroethene (PCE) Results
Terra Pave Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

Attachment A, Figure A-8
Indoor Air Quality Trichloroethene (TCE) Results
Terra Pave Building
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

(1) http://www.epa.gov/region9/superfund/prg/

Attachment A, Table A-2
Indoor Air Monitoring Record
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

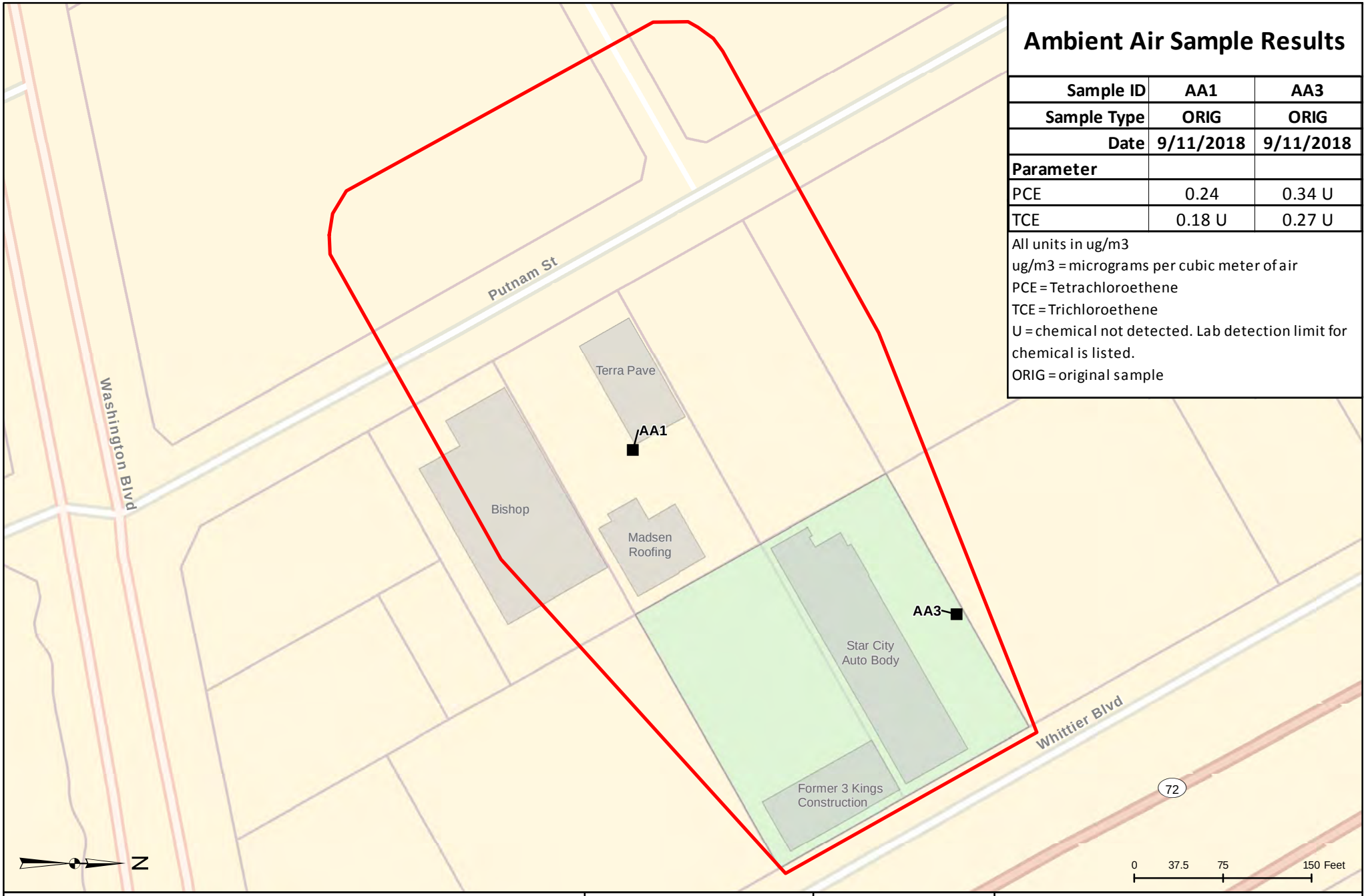
Building	IAQ Sample ID	IAQ Sample Date	HVAC Operations (On/Off/No HVAC)	Comments
Bishop Company	IAQ_B1_091118 (B1) IAQ_B1_091118K (B1)	9/11/2018	On	Duplicate sample collected.
	IAQ_B2_091118 (B2)	9/11/2018	On	Door to warehouse closed.
	IAQ_B3_091118 (B3)	9/11/2018	No HVAC	Sample collected in warehouse. Slight odor. West and east slide up gates open.
Madsen Roofing	IAQ_MR1_091118 (MR1)	9/11/2018	Off	Air purifier is on. Door closed windows closed.
Star City	IAQ_SC1_091118 (SC1)	9/11/2018	No HVAC	Sample taken in maintenance area. Roll up gates open. Oil odor. Items in vicinity of sample include tools, several cars, spray cans of degreasers.
	IAQ_SC2_091118 (SC2)	9/11/2018	No HVAC	Sample collected in maintenance area. Roll up gates open. Paint booth very close to sample. Strong paint odor.
	IAQ_SC3_091118 (SC3)	9/11/2018	Off	Door open. Spray can of "FireAde" next to sampling container.
Terra Pave	IAQ_TP1_091118 (TP1) IAQ_TP1_091118K2 (TP1)	9/11/2018	On	Split sample collected.
	IAQ_TP3_091118 (TP3)	9/11/2018	No HVAC	Sample collected in warehouse. Windows and doors closed. Items inside warehouse include car, boat, generator, several paint sprayer machines, welding gas cylinders, 5 gallon buckets of joint compound.
Ambient Air	IAQ_AA1_091118 (AA1)	9/11/2018	No HVAC	Exterior lot between Terra Pave and Madsen. Equipment and materials in vicinity include several asphalt machines, forklift, trucks, several drums, two gas cans.
	IAQ_AA3_091118 (AA3)	9/11/2018	No HVAC	Fence between Star City and Medlin & Son South. Cars parked close to sample.

Attachment A, Table A-3
Ambient Air Analytical Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Sample ID	IAQ_AA1_091118 (AA1)	IAQ_AA3_091118 (AA3)
SDG	1809221A	1809221A
Sample Location	IAQ-AMB-01	IAQ-AMB-03
Building ID	AMBIENT AIR	AMBIENT AIR
Sample Type	ORIG	ORIG
Date	Sep 11, 2018	Sep 11, 2018
Parameter		
1,1,2,2-Tetrachloroethane	0.23 U	0.35 U
Tetrachloroethene (PCE)	0.24	0.34 U
Trichloroethene (TCE)	0.18 U	0.27 U
1,1,1-Trichloroethane (TCA)	0.18 U	0.28 U
1,1,2-Trichloroethane	0.18 U	0.28 U
1,1-Dichloroethene	0.067 U	0.10 U
1,1-Dichloroethane	0.14 U	0.20 U
1,2-Dichloroethane	0.14 U	0.20 U
cis-1,2-Dichloroethene	0.13 U	0.20 U
trans-1,2-Dichloroethene	0.67 U	1.0 U
trans-1,3-Dichloropropene	0.15 U	0.23 U
Carbon tetrachloride	0.53	0.49
Chloroform	0.16 U	0.25 U
Methylene chloride	1.2 U	1.8 U
Freon 11	1.4 J+	1.3
Freon 113	0.55	0.54
Freon 12	2.5	2.2
Vinyl chloride	0.043 U	0.065 U
Acetone	17	47
Benzene	0.41	0.74
Toluene	1.5	1.8
Ethylbenzene	0.29	0.51
m,p-Xylene	0.92	1.7
o-Xylene	0.38	0.55
1,2-Dichlorobenzene	0.20 U	0.30 U
1,4-Dichlorobenzene	0.20 U	0.30 U
Chlorobenzene	0.16 U	0.23 U
Methyl Tert-Butyl Ether	0.61 U	0.92 U

U = chemical not detected. Lab detection limit for chemical is listed.
J+ = result is an estimated quantity, but the result may be biased high

All results in micrograms per cubic meter of air (ug/m3)
-- = value not available
ORIG = original sample



Ambient Air Sample Results

Sample ID	AA1	AA3
Sample Type	ORIG	ORIG
Date	9/11/2018	9/11/2018
Parameter		
PCE	0.24	0.34 U
TCE	0.18 U	0.27 U

All units in ug/m3
ug/m3 = micrograms per cubic meter of air
PCE = Tetrachloroethene
TCE = Trichloroethene
U = chemical not detected. Lab detection limit for chemical is listed.
ORIG = original sample

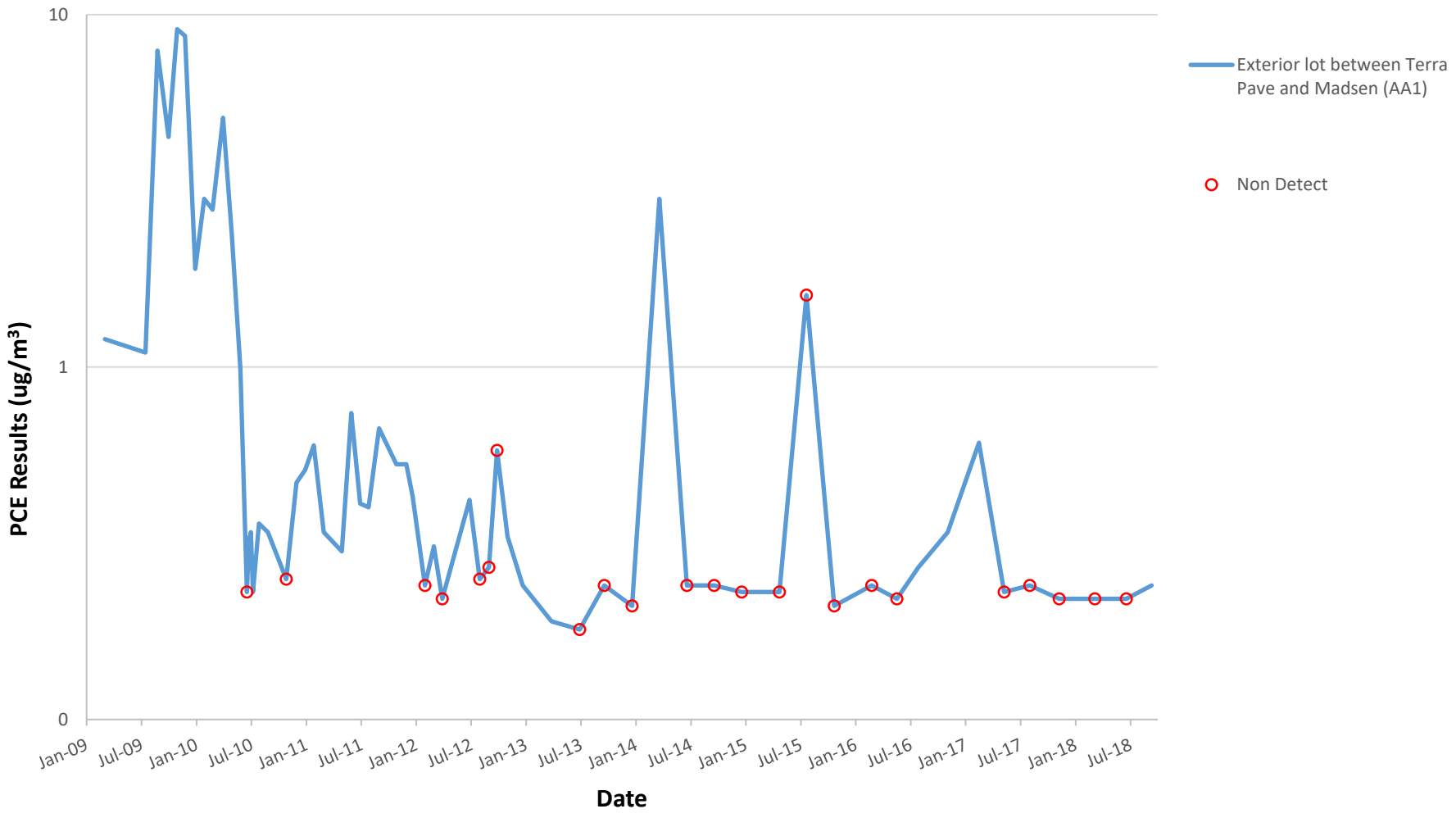
- Ambient Air Sample
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- OU-1 Boundary
- Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MC
Drawn By: LEM
Date: 10/20/2018

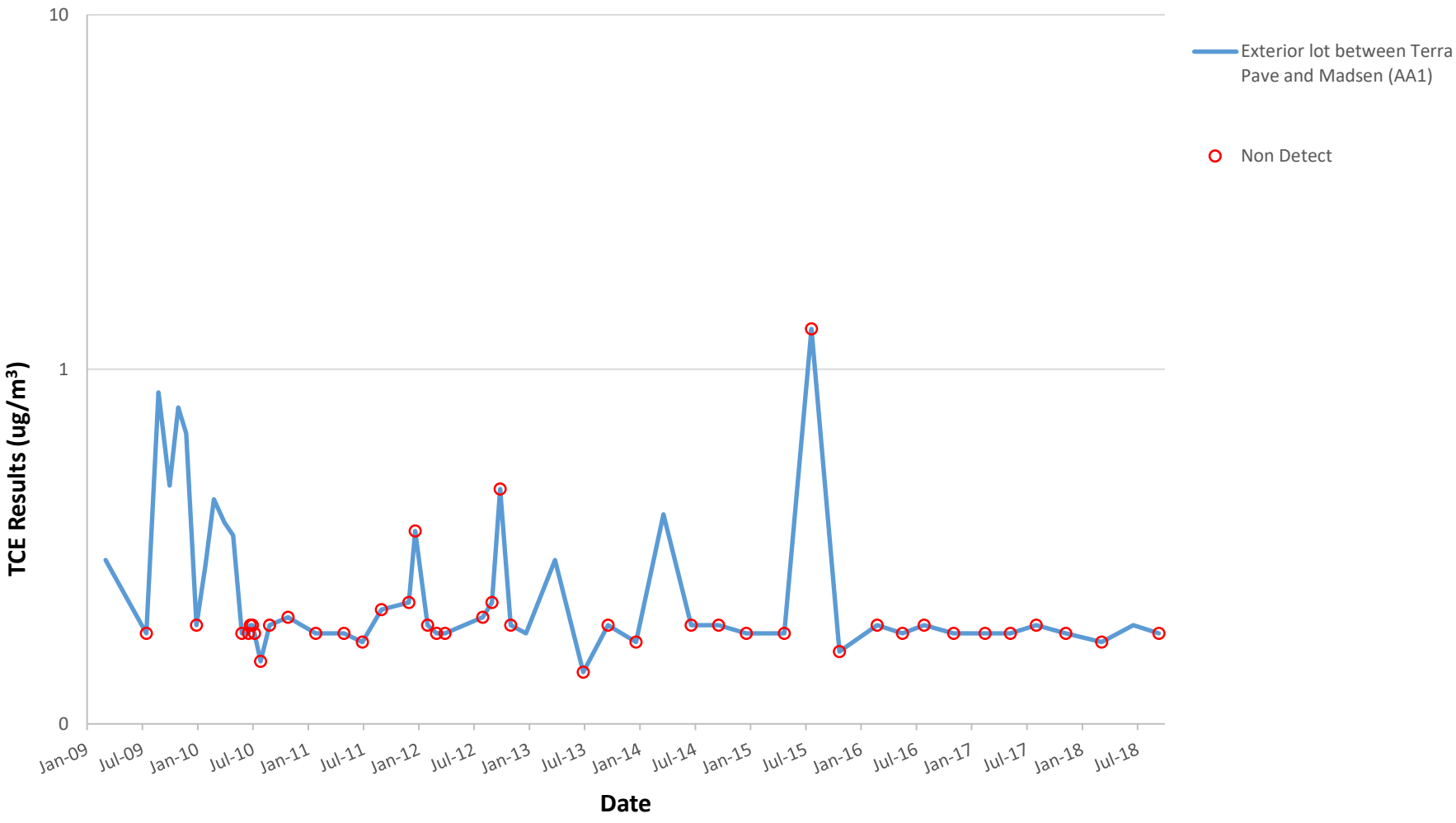
Attachment A, Figure A-9
Semi-Annual Ambient Air Concentrations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018

Attachment A, Figure A-10
Ambient Air Quality Tetrachloroethene (PCE) Results
Ambient Air - 01
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



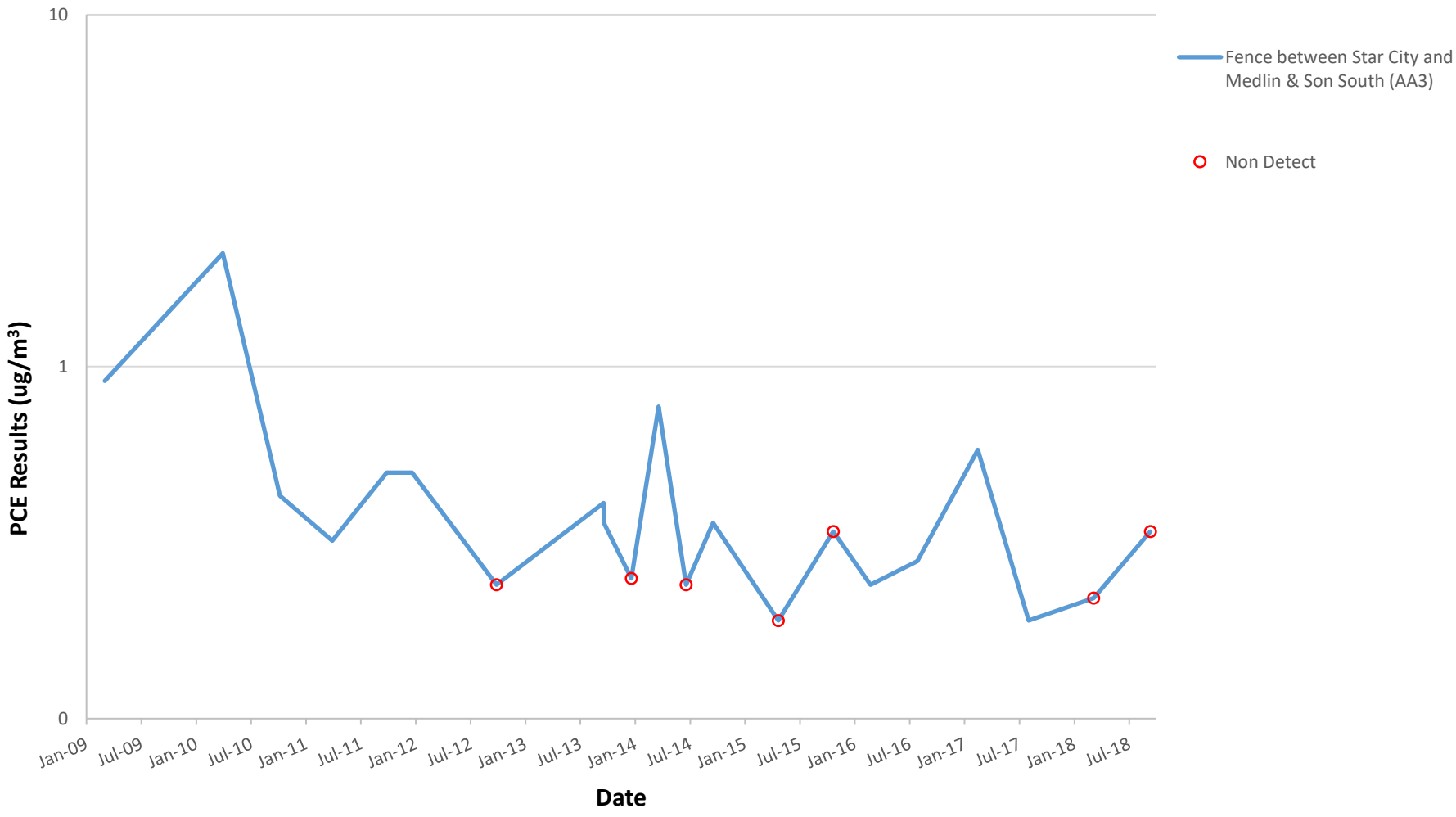
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment A, Figure A-11
Ambient Air Quality Trichloroethene (TCE) Results
Ambient Air - 01
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



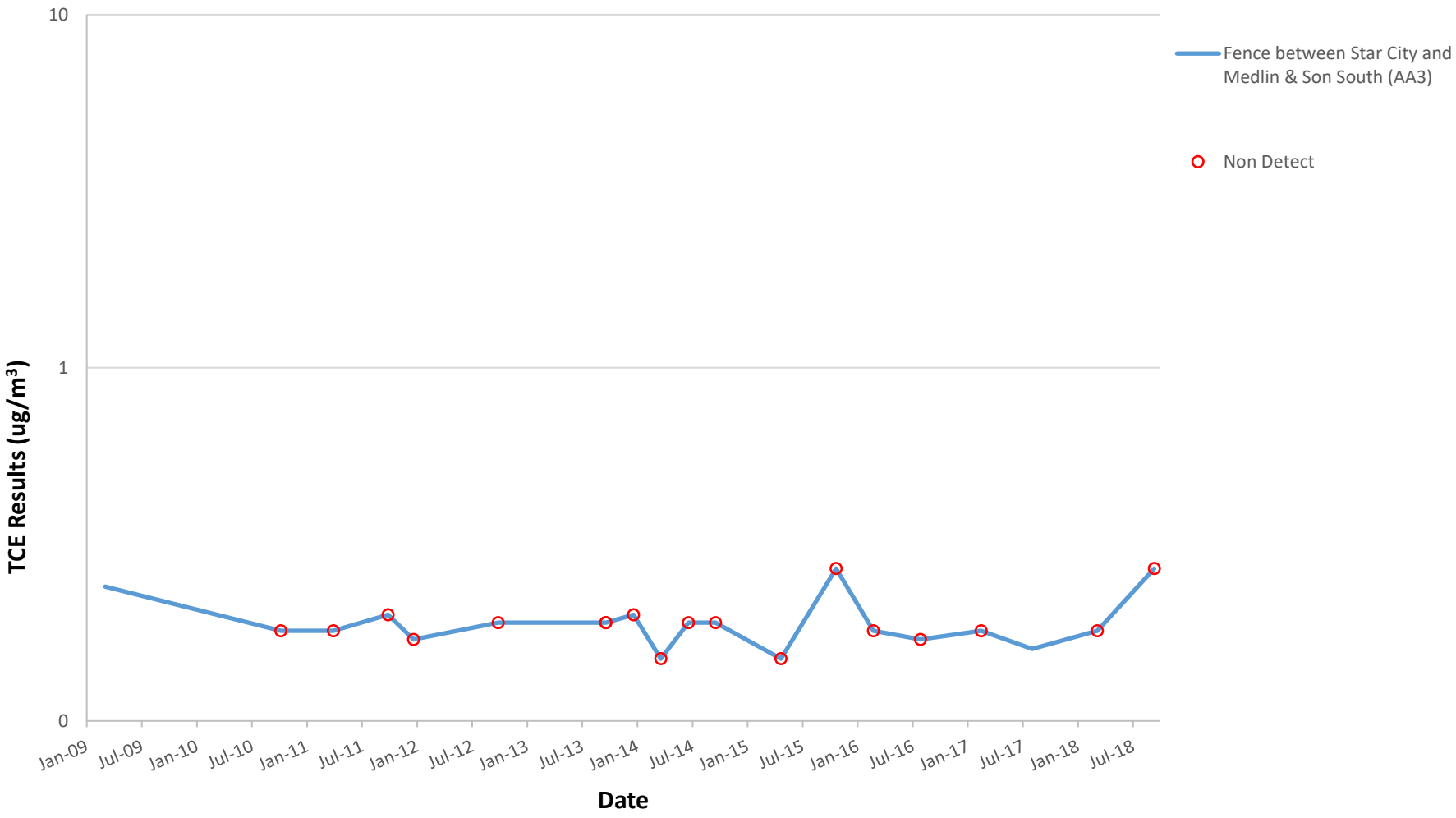
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment A, Figure A-12
Ambient Air Quality Tetrachloroethene (PCE) Results
Ambient Air - 03
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment A, Figure A-13
Ambient Air Quality Trichloroethene (TCE) Results
Ambient Air - 03
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols in the graph.

Attachment B

Laboratory Analytical Results

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9/26/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-IAQ Sept. 2018
Project #:
Workorder #: 1809221A

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/13/2018 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1809221A

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	3139-GL 6403
FAX:	949.679.9078	**PROJECT #**	Omega-IAQ Sept. 2018
DATE RECEIVED:	09/13/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/22/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
03A	IAQ_AA3_091118	Modified TO-15	13.9 "Hg	5.4 psi
03B	IAQ_AA3_091118	Modified TO-15	13.9 "Hg	5.4 psi
05A	IAQ_B2_091118	Modified TO-15	6.7 "Hg	5.5 psi
05B	IAQ_B2_091118	Modified TO-15	6.7 "Hg	5.5 psi
06A	IAQ_B1_091118	Modified TO-15	3.9 "Hg	5.2 psi
06B	IAQ_B1_091118	Modified TO-15	3.9 "Hg	5.2 psi
07A	IAQ_B1_091118K	Modified TO-15	5.5 "Hg	4.9 psi
07B	IAQ_B1_091118K	Modified TO-15	5.5 "Hg	4.9 psi
08A	IAQ_B3_091118	Modified TO-15	5.5 "Hg	5.3 psi
08B	IAQ_B3_091118	Modified TO-15	5.5 "Hg	5.3 psi
09A	IAQ_MR1_091118	Modified TO-15	5.7 "Hg	5.3 psi
09B	IAQ_MR1_091118	Modified TO-15	5.7 "Hg	5.3 psi
10A	IAQ_TP1_091118	Modified TO-15	5.1 "Hg	5 psi
10B	IAQ_TP1_091118	Modified TO-15	5.1 "Hg	5 psi
11A	IAQ_AA1_091118	Modified TO-15	6.3 "Hg	4.9 psi
11B	IAQ_AA1_091118	Modified TO-15	6.3 "Hg	4.9 psi
12A	IAQ_TP3_091118	Modified TO-15	5.3 "Hg	5.2 psi
12B	IAQ_TP3_091118	Modified TO-15	5.3 "Hg	5.2 psi
13A	IAQ_SC2_091118	Modified TO-15	4.7 "Hg	5.5 psi
13B	IAQ_SC2_091118	Modified TO-15	4.7 "Hg	5.5 psi
14A	IAQ_SC1_091118	Modified TO-15	5.7 "Hg	5.3 psi
14B	IAQ_SC1_091118	Modified TO-15	5.7 "Hg	5.3 psi
15A	IAQ_SC3_091118	Modified TO-15	4.5 "Hg	5.1 psi

Continued on next page

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WORK ORDER #: 1809221A

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	3139-GL 6403
FAX:	949.679.9078	**PROJECT #**	Omega-IAQ Sept. 2018
DATE RECEIVED:	09/13/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/22/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
15B	IAQ_SC3_091118	Modified TO-15	4.5 "Hg	5.1 psi
16A	Lab Blank	Modified TO-15	NA	NA
16B	Lab Blank	Modified TO-15	NA	NA
16C	Lab Blank	Modified TO-15	NA	NA
16D	Lab Blank	Modified TO-15	NA	NA
17A	CCV	Modified TO-15	NA	NA
17B	CCV	Modified TO-15	NA	NA
17C	CCV	Modified TO-15	NA	NA
17D	CCV	Modified TO-15	NA	NA
18A	LCS	Modified TO-15	NA	NA
18AA	LCSD	Modified TO-15	NA	NA
18B	LCS	Modified TO-15	NA	NA
18BB	LCSD	Modified TO-15	NA	NA
18C	LCS	Modified TO-15	NA	NA
18CC	LCSD	Modified TO-15	NA	NA
18D	LCS	Modified TO-15	NA	NA
18DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 09/22/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
DeMaximis, Inc
Workorder# 1809221A

Twelve 6 Liter Summa Canister (SIM Certified) samples were received on September 13, 2018. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

A revised Chain of Custody (COC) was provided by the client on 09/19/2018.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is

defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on samples IAQ_SC1_091118 and IAQ_SC3_091118 due to the presence of high level target species.

Definition of Data Qualifying Flags

Nine qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_AA3_091118

Lab ID#: 1809221A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.3	20	3.0	47

Client Sample ID: IAQ_AA3_091118

Lab ID#: 1809221A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.051	0.44	0.25	2.2
Freon 11	0.051	0.24	0.28	1.3
Freon 113	0.051	0.071	0.39	0.54
Carbon Tetrachloride	0.051	0.078	0.32	0.49
Benzene	0.13	0.23	0.40	0.74
Toluene	0.051	0.47	0.19	1.8
Ethyl Benzene	0.051	0.12	0.22	0.51
m,p-Xylene	0.10	0.40	0.44	1.7
o-Xylene	0.051	0.13	0.22	0.55

Client Sample ID: IAQ_B2_091118

Lab ID#: 1809221A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.88	69	2.1	160
Methylene Chloride	0.35	0.37	1.2	1.3

Client Sample ID: IAQ_B2_091118

Lab ID#: 1809221A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.45	0.18	2.2
Freon 11	0.035	0.24	0.20	1.4
Freon 113	0.035	0.075	0.27	0.57
Chloroform	0.035	0.056	0.17	0.27
1,1,1-Trichloroethane	0.035	0.035	0.19	0.19

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B2_091118

Lab ID#: 1809221A-05B

Carbon Tetrachloride	0.035	0.080	0.22	0.51
Benzene	0.088	0.88	0.28	2.8
1,2-Dichloroethane	0.035	0.049	0.14	0.20
Toluene	0.035	7.9	0.13	30
Tetrachloroethene	0.035	0.058	0.24	0.40
Ethyl Benzene	0.035	1.3	0.15	5.6
m,p-Xylene	0.071	5.3	0.31	23
o-Xylene	0.035	1.7	0.15	7.6

Client Sample ID: IAQ_B1_091118

Lab ID#: 1809221A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	13	1.8	32
Methylene Chloride	0.31	0.36	1.1	1.2

Client Sample ID: IAQ_B1_091118

Lab ID#: 1809221A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.031	0.46	0.15	2.3
Freon 11	0.031	0.24	0.17	1.4
Freon 113	0.031	0.072	0.24	0.55
Chloroform	0.031	0.042	0.15	0.20
Carbon Tetrachloride	0.031	0.085	0.20	0.54
Benzene	0.078	0.19	0.25	0.62
Toluene	0.031	0.44	0.12	1.7
Ethyl Benzene	0.031	0.058	0.13	0.25
m,p-Xylene	0.062	0.14	0.27	0.60
o-Xylene	0.031	0.066	0.13	0.29

Client Sample ID: IAQ_B1_091118K

Lab ID#: 1809221A-07A

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B1_091118K

Lab ID#: 1809221A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	12	1.9	29
Methylene Chloride	0.33	0.35	1.1	1.2

Client Sample ID: IAQ_B1_091118K

Lab ID#: 1809221A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Freon 11	0.033	0.24	0.18	1.4
Freon 113	0.033	0.072	0.25	0.55
Chloroform	0.033	0.040	0.16	0.19
Carbon Tetrachloride	0.033	0.086	0.20	0.54
Benzene	0.082	0.19	0.26	0.60
Toluene	0.033	0.42	0.12	1.6
Ethyl Benzene	0.033	0.056	0.14	0.24
m,p-Xylene	0.065	0.14	0.28	0.63
o-Xylene	0.033	0.057	0.14	0.25

Client Sample ID: IAQ_B3_091118

Lab ID#: 1809221A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	15	2.0	37
Methylene Chloride	0.33	0.36	1.2	1.3

Client Sample ID: IAQ_B3_091118

Lab ID#: 1809221A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Freon 11	0.033	0.24	0.19	1.4
Freon 113	0.033	0.072	0.26	0.55

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_B3_091118

Lab ID#: 1809221A-08B

Chloroform	0.033	0.036	0.16	0.18
Carbon Tetrachloride	0.033	0.079	0.21	0.50
Benzene	0.084	0.22	0.27	0.71
Toluene	0.033	1.0	0.12	4.0
Ethyl Benzene	0.033	0.11	0.14	0.47
m,p-Xylene	0.067	0.31	0.29	1.3
o-Xylene	0.033	0.13	0.14	0.57

Client Sample ID: IAQ_MR1_091118

Lab ID#: 1809221A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	20	2.0	46
Methylene Chloride	0.34	0.41	1.2	1.4

Client Sample ID: IAQ_MR1_091118

Lab ID#: 1809221A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.45	0.17	2.2
Freon 11	0.034	0.25	0.19	1.4
Freon 113	0.034	0.074	0.26	0.57
Chloroform	0.034	0.043	0.16	0.21
Carbon Tetrachloride	0.034	0.080	0.21	0.50
Benzene	0.084	0.36	0.27	1.1
Toluene	0.034	1.3	0.13	4.9
Ethyl Benzene	0.034	0.19	0.14	0.84
m,p-Xylene	0.067	0.64	0.29	2.8
o-Xylene	0.034	0.26	0.14	1.1

Client Sample ID: IAQ_TP1_091118

Lab ID#: 1809221A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_TP1_091118

Lab ID#: 1809221A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.80	9.8	1.9	23

Client Sample ID: IAQ_TP1_091118

Lab ID#: 1809221A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.45	0.16	2.2
Freon 11	0.032	0.25	0.18	1.4
Freon 113	0.032	0.072	0.25	0.55
Chloroform	0.032	0.044	0.16	0.21
Carbon Tetrachloride	0.032	0.079	0.20	0.50
Benzene	0.080	0.87	0.26	2.8
Trichloroethene	0.032	0.084	0.17	0.45
Toluene	0.032	3.3	0.12	12
Ethyl Benzene	0.032	0.34	0.14	1.5
m,p-Xylene	0.064	1.2	0.28	5.4
o-Xylene	0.032	0.42	0.14	1.8

Client Sample ID: IAQ_AA1_091118

Lab ID#: 1809221A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	7.4	2.0	17

Client Sample ID: IAQ_AA1_091118

Lab ID#: 1809221A-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.50	0.17	2.5
Freon 11	0.034	0.25 J0	0.19	1.4 J0
Freon 113	0.034	0.071	0.26	0.55
Carbon Tetrachloride	0.034	0.084	0.21	0.53

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_AA1_091118

Lab ID#: 1809221A-11B

Benzene	0.084	0.13	0.27	0.41
Toluene	0.034	0.40	0.13	1.5
Tetrachloroethene	0.034	0.035	0.23	0.24
Ethyl Benzene	0.034	0.067	0.15	0.29
m,p-Xylene	0.068	0.21	0.29	0.92
o-Xylene	0.034	0.088	0.15	0.38

Client Sample ID: IAQ_TP3_091118

Lab ID#: 1809221A-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	10	1.9	25

Client Sample ID: IAQ_TP3_091118

Lab ID#: 1809221A-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.49	0.16	2.4
Freon 11	0.033	0.26 J0	0.18	1.4 J0
Freon 113	0.033	0.065	0.25	0.50
Carbon Tetrachloride	0.033	0.085	0.21	0.53
Benzene	0.082	3.3	0.26	10
Toluene	0.033	19	0.12	71
Ethyl Benzene	0.033	2.6	0.14	11
m,p-Xylene	0.066	11	0.28	48
o-Xylene	0.033	3.7	0.14	16

Client Sample ID: IAQ_SC2_091118

Lab ID#: 1809221A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	8.2	2400 E	19	5700 E

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_SC2_091118

Lab ID#: 1809221A-13B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.33	0.62	1.6	3.1
Benzene	0.82	1.2	2.6	3.7
Toluene	0.33	8.9	1.2	33
Ethyl Benzene	0.33	3.0	1.4	13
m,p-Xylene	0.65	12	2.8	53
o-Xylene	0.33	3.1	1.4	13

Client Sample ID: IAQ_SC1_091118

Lab ID#: 1809221A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.7	380 E	4.0	910 E
Methylene Chloride	0.67	0.70	2.3	2.4

Client Sample ID: IAQ_SC1_091118

Lab ID#: 1809221A-14B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.067	0.48	0.33	2.4
Freon 11	0.067	0.24 J0	0.38	1.4 J0
Carbon Tetrachloride	0.067	0.081	0.42	0.51
Benzene	0.17	0.41	0.54	1.3
Toluene	0.067	5.5	0.25	21
Ethyl Benzene	0.067	0.34	0.29	1.5
m,p-Xylene	0.13	1.2	0.58	5.4
o-Xylene	0.067	0.43	0.29	1.9

Client Sample ID: IAQ_SC3_091118

Lab ID#: 1809221A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.79	120 E	1.9	280 E

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IAQ_SC3_091118

Lab ID#: 1809221A-15A

Methylene Chloride	0.32	0.60	1.1	2.1

Client Sample ID: IAQ_SC3_091118

Lab ID#: 1809221A-15B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.47	0.16	2.3
Freon 11	0.032	0.26 J0	0.18	1.4 J0
Freon 113	0.032	0.066	0.24	0.51
Carbon Tetrachloride	0.032	0.094	0.20	0.59
Benzene	0.079	0.21	0.25	0.66
1,2-Dichloroethane	0.032	0.098	0.13	0.40
Trichloroethene	0.032	0.032	0.17	0.17
Toluene	0.032	4.5	0.12	17
Ethyl Benzene	0.032	0.37	0.14	1.6
m,p-Xylene	0.063	1.2	0.27	5.4
o-Xylene	0.032	0.45	0.14	2.0

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Client Sample ID: IAQ_AA3_091118

Lab ID#: 1809221A-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091809**	**Date of Collection:**	**9/11/18 3:32:00 PM**
Dil. Factor:	**2.54**	**Date of Analysis:**	**9/18/18 02:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.3	20	3.0	47
Methylene Chloride	0.51	Not Detected	1.8	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_AA3_091118

Lab ID#: 1809221A-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091809sim**	**Date of Collection:**	**9/11/18 3:32:00 PM**
Dil. Factor:	**2.54**	**Date of Analysis:**	**9/18/18 02:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.051	0.44	0.25	2.2
Vinyl Chloride	0.025	Not Detected	0.065	Not Detected
Freon 11	0.051	0.24	0.28	1.3
1,1-Dichloroethene	0.025	Not Detected	0.10	Not Detected
Freon 113	0.051	0.071	0.39	0.54
1,1-Dichloroethane	0.051	Not Detected	0.20	Not Detected
cis-1,2-Dichloroethene	0.051	Not Detected	0.20	Not Detected
Chloroform	0.051	Not Detected	0.25	Not Detected
1,1,1-Trichloroethane	0.051	Not Detected	0.28	Not Detected
Carbon Tetrachloride	0.051	0.078	0.32	0.49
Benzene	0.13	0.23	0.40	0.74
1,2-Dichloroethane	0.051	Not Detected	0.20	Not Detected
Trichloroethene	0.051	Not Detected	0.27	Not Detected
trans-1,3-Dichloropropene	0.051	Not Detected	0.23	Not Detected
Toluene	0.051	0.47	0.19	1.8
1,1,2-Trichloroethane	0.051	Not Detected	0.28	Not Detected
Tetrachloroethene	0.051	Not Detected	0.34	Not Detected
Chlorobenzene	0.051	Not Detected	0.23	Not Detected
Ethyl Benzene	0.051	0.12	0.22	0.51
m,p-Xylene	0.10	0.40	0.44	1.7
o-Xylene	0.051	0.13	0.22	0.55
1,4-Dichlorobenzene	0.051	Not Detected	0.30	Not Detected
1,2-Dichlorobenzene	0.051	Not Detected	0.30	Not Detected
1,1,2,2-Tetrachloroethane	0.051	Not Detected	0.35	Not Detected
Methyl tert-butyl ether	0.25	Not Detected	0.92	Not Detected
trans-1,2-Dichloroethene	0.25	Not Detected	1.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_B2_091118

Lab ID#: 1809221A-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091811**	**Date of Collection:**	**9/11/18 3:40:00 PM**
Dil. Factor:	**1.77**	**Date of Analysis:**	**9/18/18 03:37 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.88	69	2.1	160
Methylene Chloride	0.35	0.37	1.2	1.3

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_B2_091118

Lab ID#: 1809221A-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091811sim**	**Date of Collection:**	**9/11/18 3:40:00 PM**
Dil. Factor:	**1.77**	**Date of Analysis:**	**9/18/18 03:37 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.035	0.45	0.18	2.2
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
Freon 11	0.035	0.24	0.20	1.4
1,1-Dichloroethene	0.018	Not Detected	0.070	Not Detected
Freon 113	0.035	0.075	0.27	0.57
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
Chloroform	0.035	0.056	0.17	0.27
1,1,1-Trichloroethane	0.035	0.035	0.19	0.19
Carbon Tetrachloride	0.035	0.080	0.22	0.51
Benzene	0.088	0.88	0.28	2.8
1,2-Dichloroethane	0.035	0.049	0.14	0.20
Trichloroethene	0.035	Not Detected	0.19	Not Detected
trans-1,3-Dichloropropene	0.035	Not Detected	0.16	Not Detected
Toluene	0.035	7.9	0.13	30
1,1,2-Trichloroethane	0.035	Not Detected	0.19	Not Detected
Tetrachloroethene	0.035	0.058	0.24	0.40
Chlorobenzene	0.035	Not Detected	0.16	Not Detected
Ethyl Benzene	0.035	1.3	0.15	5.6
m,p-Xylene	0.071	5.3	0.31	23
o-Xylene	0.035	1.7	0.15	7.6
1,4-Dichlorobenzene	0.035	Not Detected	0.21	Not Detected
1,2-Dichlorobenzene	0.035	Not Detected	0.21	Not Detected
1,1,2,2-Tetrachloroethane	0.035	Not Detected	0.24	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.70	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: IAQ_B1_091118

Lab ID#: 1809221A-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091812**	**Date of Collection:**	**9/11/18 2:45:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**9/18/18 04:18 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.78	13	1.8	32
Methylene Chloride	0.31	0.36	1.1	1.2

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	86	70-130

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Client Sample ID: IAQ_B1_091118

Lab ID#: 1809221A-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091812sim**	**Date of Collection:**	**9/11/18 2:45:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**9/18/18 04:18 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.031	0.46	0.15	2.3
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Freon 11	0.031	0.24	0.17	1.4
1,1-Dichloroethene	0.016	Not Detected	0.061	Not Detected
Freon 113	0.031	0.072	0.24	0.55
1,1-Dichloroethane	0.031	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.031	Not Detected	0.12	Not Detected
Chloroform	0.031	0.042	0.15	0.20
1,1,1-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.031	0.085	0.20	0.54
Benzene	0.078	0.19	0.25	0.62
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
Trichloroethene	0.031	Not Detected	0.17	Not Detected
trans-1,3-Dichloropropene	0.031	Not Detected	0.14	Not Detected
Toluene	0.031	0.44	0.12	1.7
1,1,2-Trichloroethane	0.031	Not Detected	0.17	Not Detected
Tetrachloroethene	0.031	Not Detected	0.21	Not Detected
Chlorobenzene	0.031	Not Detected	0.14	Not Detected
Ethyl Benzene	0.031	0.058	0.13	0.25
m,p-Xylene	0.062	0.14	0.27	0.60
o-Xylene	0.031	0.066	0.13	0.29
1,4-Dichlorobenzene	0.031	Not Detected	0.19	Not Detected
1,2-Dichlorobenzene	0.031	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: IAQ_B1_091118K

Lab ID#: 1809221A-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091813**	**Date of Collection:**	**9/11/18 3:41:00 PM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**9/18/18 04:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	12	1.9	29
Methylene Chloride	0.33	0.35	1.1	1.2

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	81	70-130

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Client Sample ID: IAQ_B1_091118K

Lab ID#: 1809221A-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091813sim**	**Date of Collection:**	**9/11/18 3:41:00 PM**
Dil. Factor:	**1.63**	**Date of Analysis:**	**9/18/18 04:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Freon 11	0.033	0.24	0.18	1.4
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Freon 113	0.033	0.072	0.25	0.55
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.040	0.16	0.19
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.086	0.20	0.54
Benzene	0.082	0.19	0.26	0.60
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.033	Not Detected	0.15	Not Detected
Toluene	0.033	0.42	0.12	1.6
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
Chlorobenzene	0.033	Not Detected	0.15	Not Detected
Ethyl Benzene	0.033	0.056	0.14	0.24
m,p-Xylene	0.065	0.14	0.28	0.63
o-Xylene	0.033	0.057	0.14	0.25
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	83	70-130

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Client Sample ID: IAQ_B3_091118

Lab ID#: 1809221A-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091814**	**Date of Collection:**	**9/11/18 3:44:00 PM**
Dil. Factor:	**1.67**	**Date of Analysis:**	**9/18/18 05:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	15	2.0	37
Methylene Chloride	0.33	0.36	1.2	1.3

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	78	70-130

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Client Sample ID: IAQ_B3_091118

Lab ID#: 1809221A-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091814sim**	**Date of Collection:**	**9/11/18 3:44:00 PM**
Dil. Factor:	**1.67**	**Date of Analysis:**	**9/18/18 05:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.45	0.16	2.2
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Freon 11	0.033	0.24	0.19	1.4
1,1-Dichloroethene	0.017	Not Detected	0.066	Not Detected
Freon 113	0.033	0.072	0.26	0.55
1,1-Dichloroethane	0.033	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	0.036	0.16	0.18
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.079	0.21	0.50
Benzene	0.084	0.22	0.27	0.71
1,2-Dichloroethane	0.033	Not Detected	0.14	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.033	Not Detected	0.15	Not Detected
Toluene	0.033	1.0	0.12	4.0
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.23	Not Detected
Chlorobenzene	0.033	Not Detected	0.15	Not Detected
Ethyl Benzene	0.033	0.11	0.14	0.47
m,p-Xylene	0.067	0.31	0.29	1.3
o-Xylene	0.033	0.13	0.14	0.57
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.23	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	82	70-130

eurofins | Air Toxics

Client Sample ID: IAQ_MR1_091118

Lab ID#: 1809221A-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091815**	**Date of Collection:**	**9/11/18 3:59:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**9/18/18 06:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	20	2.0	46
Methylene Chloride	0.34	0.41	1.2	1.4

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: IAQ_MR1_091118

Lab ID#: 1809221A-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091815sim**	**Date of Collection:**	**9/11/18 3:59:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**9/18/18 06:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.45	0.17	2.2
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Freon 11	0.034	0.25	0.19	1.4
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Freon 113	0.034	0.074	0.26	0.57
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	0.043	0.16	0.21
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.080	0.21	0.50
Benzene	0.084	0.36	0.27	1.1
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.034	Not Detected	0.15	Not Detected
Toluene	0.034	1.3	0.13	4.9
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
Chlorobenzene	0.034	Not Detected	0.15	Not Detected
Ethyl Benzene	0.034	0.19	0.14	0.84
m,p-Xylene	0.067	0.64	0.29	2.8
o-Xylene	0.034	0.26	0.14	1.1
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: IAQ_TP1_091118

Lab ID#: 1809221A-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091816**	**Date of Collection:**	**9/11/18 4:19:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**9/18/18 06:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.80	9.8	1.9	23
Methylene Chloride	0.32	Not Detected	1.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	82	70-130

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Client Sample ID: IAQ_TP1_091118

Lab ID#: 1809221A-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091816sim**	**Date of Collection:**	**9/11/18 4:19:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**9/18/18 06:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.45	0.16	2.2
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
Freon 11	0.032	0.25	0.18	1.4
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
Freon 113	0.032	0.072	0.25	0.55
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
Chloroform	0.032	0.044	0.16	0.21
1,1,1-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.032	0.079	0.20	0.50
Benzene	0.080	0.87	0.26	2.8
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
Trichloroethene	0.032	0.084	0.17	0.45
trans-1,3-Dichloropropene	0.032	Not Detected	0.15	Not Detected
Toluene	0.032	3.3	0.12	12
1,1,2-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
Chlorobenzene	0.032	Not Detected	0.15	Not Detected
Ethyl Benzene	0.032	0.34	0.14	1.5
m,p-Xylene	0.064	1.2	0.28	5.4
o-Xylene	0.032	0.42	0.14	1.8
1,4-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected
1,2-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	84	70-130

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Client Sample ID: IAQ_AA1_091118

Lab ID#: 1809221A-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091907**	**Date of Collection:**	**9/11/18 4:21:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**9/19/18 03:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.84	7.4	2.0	17
Methylene Chloride	0.34	Not Detected	1.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: IAQ_AA1_091118

Lab ID#: 1809221A-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091907sim**	**Date of Collection:**	**9/11/18 4:21:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**9/19/18 03:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.034	0.50	0.17	2.5
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
Freon 11	0.034	0.25 J0	0.19	1.4 J0
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
Freon 113	0.034	0.071	0.26	0.55
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Chloroform	0.034	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.034	0.084	0.21	0.53
Benzene	0.084	0.13	0.27	0.41
1,2-Dichloroethane	0.034	Not Detected	0.14	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.034	Not Detected	0.15	Not Detected
Toluene	0.034	0.40	0.13	1.5
1,1,2-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Tetrachloroethene	0.034	0.035	0.23	0.24
Chlorobenzene	0.034	Not Detected	0.16	Not Detected
Ethyl Benzene	0.034	0.067	0.15	0.29
m,p-Xylene	0.068	0.21	0.29	0.92
o-Xylene	0.034	0.088	0.15	0.38
1,4-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.034	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.034	Not Detected	0.23	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: IAQ_TP3_091118

Lab ID#: 1809221A-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091908**	**Date of Collection:**	**9/11/18 4:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**9/19/18 04:05 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.82	10	1.9	25
Methylene Chloride	0.33	Not Detected	1.1	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: IAQ_TP3_091118

Lab ID#: 1809221A-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091908sim**	**Date of Collection:**	**9/11/18 4:20:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**9/19/18 04:05 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.033	0.49	0.16	2.4
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
Freon 11	0.033	0.26 J0	0.18	1.4 J0
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
Freon 113	0.033	0.065	0.25	0.50
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
Chloroform	0.033	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Carbon Tetrachloride	0.033	0.085	0.21	0.53
Benzene	0.082	3.3	0.26	10
1,2-Dichloroethane	0.033	Not Detected	0.13	Not Detected
Trichloroethene	0.033	Not Detected	0.18	Not Detected
trans-1,3-Dichloropropene	0.033	Not Detected	0.15	Not Detected
Toluene	0.033	19	0.12	71
1,1,2-Trichloroethane	0.033	Not Detected	0.18	Not Detected
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
Chlorobenzene	0.033	Not Detected	0.15	Not Detected
Ethyl Benzene	0.033	2.6	0.14	11
m,p-Xylene	0.066	11	0.28	48
o-Xylene	0.033	3.7	0.14	16
1,4-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,2-Dichlorobenzene	0.033	Not Detected	0.20	Not Detected
1,1,2,2-Tetrachloroethane	0.033	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: IAQ_SC2_091118

Lab ID#: 1809221A-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091911**	**Date of Collection:**	**9/11/18 4:28:00 PM**
Dil. Factor:	**16.3**	**Date of Analysis:**	**9/19/18 05:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	8.2	2400 E	19	5700 E
Methylene Chloride	3.3	Not Detected	11	Not Detected

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: IAQ_SC2_091118

Lab ID#: 1809221A-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091911sim**	**Date of Collection:**	**9/11/18 4:28:00 PM**
Dil. Factor:	**16.3**	**Date of Analysis:**	**9/19/18 05:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.33	0.62	1.6	3.1
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
Freon 11	0.33	Not Detected	1.8	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Freon 113	0.33	Not Detected	2.5	Not Detected
1,1-Dichloroethane	0.33	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.33	Not Detected	1.3	Not Detected
Chloroform	0.33	Not Detected	1.6	Not Detected
1,1,1-Trichloroethane	0.33	Not Detected	1.8	Not Detected
Carbon Tetrachloride	0.33	Not Detected	2.0	Not Detected
Benzene	0.82	1.2	2.6	3.7
1,2-Dichloroethane	0.33	Not Detected	1.3	Not Detected
Trichloroethene	0.33	Not Detected	1.8	Not Detected
trans-1,3-Dichloropropene	0.33	Not Detected	1.5	Not Detected
Toluene	0.33	8.9	1.2	33
1,1,2-Trichloroethane	0.33	Not Detected	1.8	Not Detected
Tetrachloroethene	0.33	Not Detected	2.2	Not Detected
Chlorobenzene	0.33	Not Detected	1.5	Not Detected
Ethyl Benzene	0.33	3.0	1.4	13
m,p-Xylene	0.65	12	2.8	53
o-Xylene	0.33	3.1	1.4	13
1,4-Dichlorobenzene	0.33	Not Detected	2.0	Not Detected
1,2-Dichlorobenzene	0.33	Not Detected	2.0	Not Detected
1,1,2,2-Tetrachloroethane	0.33	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	1.6	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	108	70-130

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Client Sample ID: IAQ_SC1_091118

Lab ID#: 1809221A-14A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091910**	**Date of Collection:**	**9/11/18 4:29:00 PM**
Dil. Factor:	**3.36**	**Date of Analysis:**	**9/19/18 05:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	1.7	380 E	4.0	910 E
Methylene Chloride	0.67	0.70	2.3	2.4

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: IAQ_SC1_091118

Lab ID#: 1809221A-14B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091910sim**	**Date of Collection:**	**9/11/18 4:29:00 PM**
Dil. Factor:	**3.36**	**Date of Analysis:**	**9/19/18 05:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.067	0.48	0.33	2.4
Vinyl Chloride	0.034	Not Detected	0.086	Not Detected
Freon 11	0.067	0.24 J0	0.38	1.4 J0
1,1-Dichloroethene	0.034	Not Detected	0.13	Not Detected
Freon 113	0.067	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.067	Not Detected	0.27	Not Detected
cis-1,2-Dichloroethene	0.067	Not Detected	0.27	Not Detected
Chloroform	0.067	Not Detected	0.33	Not Detected
1,1,1-Trichloroethane	0.067	Not Detected	0.37	Not Detected
Carbon Tetrachloride	0.067	0.081	0.42	0.51
Benzene	0.17	0.41	0.54	1.3
1,2-Dichloroethane	0.067	Not Detected	0.27	Not Detected
Trichloroethene	0.067	Not Detected	0.36	Not Detected
trans-1,3-Dichloropropene	0.067	Not Detected	0.30	Not Detected
Toluene	0.067	5.5	0.25	21
1,1,2-Trichloroethane	0.067	Not Detected	0.37	Not Detected
Tetrachloroethene	0.067	Not Detected	0.46	Not Detected
Chlorobenzene	0.067	Not Detected	0.31	Not Detected
Ethyl Benzene	0.067	0.34	0.29	1.5
m,p-Xylene	0.13	1.2	0.58	5.4
o-Xylene	0.067	0.43	0.29	1.9
1,4-Dichlorobenzene	0.067	Not Detected	0.40	Not Detected
1,2-Dichlorobenzene	0.067	Not Detected	0.40	Not Detected
1,1,2,2-Tetrachloroethane	0.067	Not Detected	0.46	Not Detected
Methyl tert-butyl ether	0.34	Not Detected	1.2	Not Detected
trans-1,2-Dichloroethene	0.34	Not Detected	1.3	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: IAQ_SC3_091118

Lab ID#: 1809221A-15A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091909**	**Date of Collection:**	**9/11/18 4:30:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**9/19/18 04:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.79	120 E	1.9	280 E
Methylene Chloride	0.32	0.60	1.1	2.1

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: IAQ_SC3_091118

Lab ID#: 1809221A-15B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091909sim**	**Date of Collection:**	**9/11/18 4:30:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**9/19/18 04:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.032	0.47	0.16	2.3
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
Freon 11	0.032	0.26 J0	0.18	1.4 J0
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
Freon 113	0.032	0.066	0.24	0.51
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
Chloroform	0.032	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Carbon Tetrachloride	0.032	0.094	0.20	0.59
Benzene	0.079	0.21	0.25	0.66
1,2-Dichloroethane	0.032	0.098	0.13	0.40
Trichloroethene	0.032	0.032	0.17	0.17
trans-1,3-Dichloropropene	0.032	Not Detected	0.14	Not Detected
Toluene	0.032	4.5	0.12	17
1,1,2-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
Chlorobenzene	0.032	Not Detected	0.14	Not Detected
Ethyl Benzene	0.032	0.37	0.14	1.6
m,p-Xylene	0.063	1.2	0.27	5.4
o-Xylene	0.032	0.45	0.14	2.0
1,4-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected
1,2-Dichlorobenzene	0.032	Not Detected	0.19	Not Detected
1,1,2,2-Tetrachloroethane	0.032	Not Detected	0.22	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected

J0 = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	111	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809221A-16A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 11:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809221A-16B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091806sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 11:31 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Freon 11	0.020	Not Detected	0.11	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Freon 113	0.020	Not Detected	0.15	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
trans-1,3-Dichloropropene	0.020	Not Detected	0.091	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
Chlorobenzene	0.020	Not Detected	0.092	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,2-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809221A-16C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091906**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 01:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	0.50	Not Detected	1.2	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	123	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809221A-16D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091906sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 01:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.020	Not Detected	0.099	Not Detected
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
Freon 11	0.020	Not Detected	0.11	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
Freon 113	0.020	Not Detected	0.15	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
Chloroform	0.020	Not Detected	0.098	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Carbon Tetrachloride	0.020	Not Detected	0.12	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
trans-1,3-Dichloropropene	0.020	Not Detected	0.091	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
1,1,2-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
Chlorobenzene	0.020	Not Detected	0.092	Not Detected
Ethyl Benzene	0.020	Not Detected	0.087	Not Detected
m,p-Xylene	0.040	Not Detected	0.17	Not Detected
o-Xylene	0.020	Not Detected	0.087	Not Detected
1,4-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,2-Dichlorobenzene	0.020	Not Detected	0.12	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: CCV

Lab ID#: 1809221A-17A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 08:52 AM**	

Compound	**%Recovery**
Acetone	90
Methylene Chloride	97

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1809221A-17B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091802sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 08:52 AM**	

Compound	**%Recovery**
Freon 12	93
Vinyl Chloride	96
Freon 11	94
1,1-Dichloroethene	90
Freon 113	91
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	91
Chloroform	102
1,1,1-Trichloroethane	95
Carbon Tetrachloride	92
Benzene	95
1,2-Dichloroethane	98
Trichloroethene	94
trans-1,3-Dichloropropene	92
Toluene	92
1,1,2-Trichloroethane	96
Tetrachloroethene	94
Chlorobenzene	93
Ethyl Benzene	96
m,p-Xylene	94
o-Xylene	98
1,4-Dichlorobenzene	84
1,2-Dichlorobenzene	93
1,1,2,2-Tetrachloroethane	92
Methyl tert-butyl ether	94
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: CCV

Lab ID#: 1809221A-17C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091902**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 09:31 AM**	

Compound	**%Recovery**
Acetone	86
Methylene Chloride	92

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: CCV

Lab ID#: 1809221A-17D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091902sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 09:31 AM**	

Compound	**%Recovery**
Freon 12	120
Vinyl Chloride	79
Freon 11	131 Q
1,1-Dichloroethene	92
Freon 113	112
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	92
Chloroform	108
1,1,1-Trichloroethane	125
Carbon Tetrachloride	139
Benzene	86
1,2-Dichloroethane	130
Trichloroethene	116
trans-1,3-Dichloropropene	107
Toluene	98
1,1,2-Trichloroethane	100
Tetrachloroethene	126
Chlorobenzene	106
Ethyl Benzene	102
m,p-Xylene	101
o-Xylene	100
1,4-Dichlorobenzene	97
1,2-Dichlorobenzene	106
1,1,2,2-Tetrachloroethane	80
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	93

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: LCS

Lab ID#: 1809221A-18A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 09:27 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	88	70-130
Methylene Chloride	95	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: LCSD

Lab ID#: 1809221A-18AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 10:02 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	88	70-130
Methylene Chloride	95	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1809221A-18B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091803sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 09:27 AM**	

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Vinyl Chloride	97	70-130
Freon 11	94	70-130
1,1-Dichloroethene	87	70-130
Freon 113	88	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	82	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	83	60-140
Benzene	94	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	93	70-130
trans-1,3-Dichloropropene	91	70-130
Toluene	91	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	92	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	98	70-130
o-Xylene	101	70-130
1,4-Dichlorobenzene	91	70-130
1,2-Dichlorobenzene	100	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCSD

Lab ID#: 1809221A-18BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**21091804sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/18/18 10:02 AM**	

Compound	%Recovery	Method Limits
Freon 12	89	70-130
Vinyl Chloride	97	70-130
Freon 11	93	70-130
1,1-Dichloroethene	85	70-130
Freon 113	88	70-130
1,1-Dichloroethane	94	70-130
cis-1,2-Dichloroethene	81	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	94	70-130
Carbon Tetrachloride	82	60-140
Benzene	94	70-130
1,2-Dichloroethane	97	70-130
Trichloroethene	93	70-130
trans-1,3-Dichloropropene	90	70-130
Toluene	91	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	91	70-130
Chlorobenzene	93	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	95	70-130
o-Xylene	100	70-130
1,4-Dichlorobenzene	88	70-130
1,2-Dichlorobenzene	97	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1809221A-18C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 11:05 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	76	70-130
Methylene Chloride	84	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCSD

Lab ID#: 1809221A-18CC

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091904**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 11:42 AM**	

Compound	**%Recovery**	**Method Limits**
Acetone	84	70-130
Methylene Chloride	84	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	127	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: LCS

Lab ID#: 1809221A-18D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091903sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 11:05 AM**	

Compound	%Recovery	Method Limits
Freon 12	114	70-130
Vinyl Chloride	76	70-130
Freon 11	124	70-130
1,1-Dichloroethene	90	70-130
Freon 113	105	70-130
1,1-Dichloroethane	83	70-130
cis-1,2-Dichloroethene	80	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	119	70-130
Carbon Tetrachloride	110	60-140
Benzene	81	70-130
1,2-Dichloroethane	121	70-130
Trichloroethene	110	70-130
trans-1,3-Dichloropropene	101	70-130
Toluene	93	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	120	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	97	70-130
o-Xylene	96	70-130
1,4-Dichlorobenzene	94	70-130
1,2-Dichlorobenzene	102	70-130
1,1,2,2-Tetrachloroethane	77	70-130
Methyl tert-butyl ether	93	70-130
trans-1,2-Dichloroethene	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: LCSD

Lab ID#: 1809221A-18DD

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	**v091904sim**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/19/18 11:42 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	111	70-130
Vinyl Chloride	74	70-130
Freon 11	124	70-130
1,1-Dichloroethene	91	70-130
Freon 113	105	70-130
1,1-Dichloroethane	83	70-130
cis-1,2-Dichloroethene	81	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	120	70-130
Carbon Tetrachloride	112	60-140
Benzene	82	70-130
1,2-Dichloroethane	123	70-130
Trichloroethene	112	70-130
trans-1,3-Dichloropropene	103	70-130
Toluene	93	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	120	70-130
Chlorobenzene	102	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	96	70-130
o-Xylene	97	70-130
1,4-Dichlorobenzene	95	70-130
1,2-Dichlorobenzene	101	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	96	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	114	70-130

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Analysis Request /Canister Chain of Custody

For Laboratory Use Only

PID: _____ Workorder #: _____

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

Click links below to view:
Canister Sampling Guide
Helium Shroud Video

Client: demaximis PID:
Project Name: Omega-IAQ Sept. 2018
Project Manager: Jaime Dinello P.O.# 3139
Sampler: Khalid Azhar
Site Name: Omega Chemical

Special Instructions/Notes:

Turnaround Time (Rush surcharges may apply): 10 day

Lab ID	Sample Identification	Can #	Flow Controller #	Start Sampling Information Date	Start Sampling Information Time	Stop Sampling Information Date	Stop Sampling Information Time	Canister Vacuum/Pressure Initial (in Hg)	Canister Vacuum/Pressure Final (in Hg)	Lab Use Only Receipt	Lab Use Only Final (psig) Gas: N_2 / He	Requested Analyses TO-15 SIM			
03A	IAQ_AA3_091118	6L1467	23668	9/11/2018	0732	9/11/2018	1532	-28	-12.5			X			
05A	IAQ_B2_091118	6L1321	23201	9/11/2018	0740	9/11/2018	1540	-30	-8			X			
06A	IAQ_B1_091118	6L0861	23447	9/11/2018	0741	9/11/2018	1445	-30	-5.5			X			
07A	IAQ_B1_091118K	6L0798	23564	9/11/2018	0741	9/11/2018	1541	-28	-6			X			
08A	IAQ_B3_091118	6L1732	23778	9/11/2018	0744	9/11/2018	1544	-30	-5.5			X			
09A	IAQ_MR1_091118	6L1575	23757	9/11/2018	0759	9/11/2018	1559	-30	-5.5			X			
10A	IAQ_TP1_091118	6L0670	23509	9/11/2018	0819	9/11/2018	1619	-30	-6			X			
11A	IAQ_AA1_091118	6L0499	23270	9/11/2018	0821	9/11/2018	1621	-30	-6.5			X			
12A	IAQ_TP3_091118	6L1144	23591	9/11/2018	0820	9/11/2018	1620	-28	-3.5			X			
13A	IAQ_SC2_091118	6L0300	23480	9/11/2018	0828	9/11/2018	1628	-28	-4.5			X			
14A	IAQ_SC1_091118	6L1244	23689	9/11/2018	0829	9/11/2018	1629	-30	-7			X			
15A	IAQ_SC3_091118	6L0010	23677	9/11/2018	0830	9/11/2018	1630	-29	-5			X			

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name: Custody Seals Intact? Yes No None

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and

Revised COC per Client 09/14/18 [illegible]

1809221

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Analysis Request /Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only
PID: _____ Workorder #: 1809221

Click links below to view:
Canister Sampling Guide
Helium Shroud Video

Client: demaximis PID:
Project Name: Omega-IAQ Sept. 2018
Project Manager: Jaime Dinello P.O.# 3139
Sampler: Khalid Azhar
Site Name: Omega Chemical

Special Instructions/Notes:

Turnaround Time (Rush surcharges may apply): 10 day

Lab ID	Sample Identification	Can #	Flow Controller #	Start Sampling Information Date	Start Sampling Information Time	Stop Sampling Information Date	Stop Sampling Information Time	Canister Vacuum/Pressure Initial (in Hg)	Canister Vacuum/Pressure Final (in Hg)	Lab Use Only Receipt	Lab Use Only Final (psig) Gas: N_2 / He	Requested Analyses TO-15 SIM			
01A	IAQ_MS1_091118	33665	23438	9/11/2018	0723	9/11/2018	1523	-30	-5.5			X			
02A	IAQ_MN1_091118	6L1415	23167	9/11/2018	0727	9/11/2018	1527	-30	-7			X			
03A	IAQ_AA3_091118	6L1467	23668	9/11/2018	0732	9/11/2018	1532	-28	-12.5			X			
04A	IAQ_MS2_091118	6L1206	23590	9/11/2018	0734	9/11/2018	1534	-30	-7.5			X			
05A	IAQ_B2_091118	6L1321	23201	9/11/2018	0740	9/11/2018	1540	-30	-8			X			
06A	IAQ_B1_091118	6L0861	23447	9/11/2018	0741	9/11/2018	1445	-30	-5.5			X			
07A	IAQ_B1_091118K	6L0798	23564	9/11/2018	0741	9/11/2018	1541	-28	-6			X			
08A	IAQ_B3_091118	6L1732	23778	9/11/2018	0744	9/11/2018	1544	-30	-5.5			X			
09A	IAQ_MR1_091118	6L1575	23757	9/11/2018	0759	9/11/2018	1559	-30	-5.5			X			
10A	IAQ_TP1_091118	6L0670	23509	9/11/2018	0819	9/11/2018	1619	-30	-6			X			
11A	IAQ_AA1_091118	6L0499	23270	9/11/2018	0821	9/11/2018	1621	-30	-6.5			X			
12A	IAQ_TP3_091118	6L1144	23591	9/11/2018	0820	9/11/2018	1620	-28	-3.5			X			
13A	IAQ_SC2_091118	6L0300	23480	9/11/2018	0828	9/11/2018	1628	-28	-4.5			X			
14A	IAQ_SC1_091118	6L1244	23689	9/11/2018	0829	9/11/2018	1629	-30	-7			X			
15A	IAQ_SC3_091118	6L0010	23677	9/11/2018	0830	9/11/2018	1630	-29	-5			X			

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
[signature]	9/11/18	1730	[signature] FATL	09/13/18	0925
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name: FEDEX | Custody Seals Intact? Yes No None

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and

LD 9/14/18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-220005-1
TestAmerica Sample Delivery Group: Whittier, CA
Client Project/Site: Omega-SemiAnnual IAQ Sept. 2018
Revision: 3

For:
de maximis, inc.
2365 Northside Drive, Suite C-100
San Diego, California 92108

Attn: Jaime Dinello

Authorized for release by:
10/3/2018 2:30:17 PM
Kathleen Robb, Project Manager II
kathleen.robb@testamericainc.com

Designee for

Danielle Roberts, Senior Project Manager
(949)261-1022
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LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Sample Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-220005-1	IAQ_TP1_091118K2	Air	09/11/18 16:19	09/13/18 18:35

Job ID: 440-220005-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-220005-1

Comments
No additional comments.

Receipt
The samples were received on 9/13/2018 6:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 23.1º C.

Air - GC/MS VOA
Method(s) TO-15 SIM: The method blank for analytical batch 320-246474 contained Carbon tetrachloride, Dichlorodifluoromethane, Methylene chloride and Toluene above the method detection limit. SOP WS-MSA-0016 states that the MB for non-DOD samples must be less than the reporting limit (RL); therefore re-analysis of samples was not performed.

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

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

Detection Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Client Sample ID: IAQ_TP1_091118K2 — Lab Sample ID: 440-220005-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.066		0.030	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
1,2-Dichloroethane	0.014	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
1,4-Dichlorobenzene	0.010	J	0.10	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Benzene	0.60		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Carbon tetrachloride	0.14	B	0.010	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Chloroform	0.024		0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Dichlorodifluoromethane	0.26	B	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Ethylbenzene	0.40		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
m,p-Xylene	1.7		0.040	0.020	ppb v/v	1		TO-15 SIM	Total/NA
Methylene Chloride	0.13	J B	0.20	0.10	ppb v/v	1		TO-15 SIM	Total/NA
o-Xylene	0.60		0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Tetrachloroethene	0.018	J	0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Toluene	2.8	B	0.020	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Trichloroethene	0.0064	J	0.020	0.0050	ppb v/v	1		TO-15 SIM	Total/NA
Trichlorofluoromethane	0.24		0.045	0.010	ppb v/v	1		TO-15 SIM	Total/NA
Acetone	12	B	5.0	0.18	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Client Sample ID: IAQ_TP1_091118K2

Lab Sample ID: 440-220005-1

Date Collected: 09/11/18 16:19
Matrix: Air
Date Received: 09/13/18 18:35
Sample Container: Summa Canister 6L

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
1,1,2,2-Tetrachloroethane	ND		0.020	0.010	ppb v/v			09/19/18 16:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.066**		0.030	0.0050	ppb v/v			09/19/18 16:26	1
1,1,2-Trichloroethane	ND		0.050	0.0050	ppb v/v			09/19/18 16:26	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			09/19/18 16:26	1
1,2-Dichloroethane	**0.014**	**J**	0.020	0.0050	ppb v/v			09/19/18 16:26	1
1,4-Dichlorobenzene	**0.010**	**J**	0.10	0.010	ppb v/v			09/19/18 16:26	1
Benzene	**0.60**		0.020	0.010	ppb v/v			09/19/18 16:26	1
Carbon tetrachloride	**0.14**	**B**	0.010	0.0050	ppb v/v			09/19/18 16:26	1
Chlorobenzene	ND		0.020	0.010	ppb v/v			09/19/18 16:26	1
Chloroform	**0.024**		0.020	0.0050	ppb v/v			09/19/18 16:26	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
Dichlorodifluoromethane	**0.26**	**B**	0.020	0.0050	ppb v/v			09/19/18 16:26	1
Ethylbenzene	**0.40**		0.020	0.010	ppb v/v			09/19/18 16:26	1
m,p-Xylene	**1.7**		0.040	0.020	ppb v/v			09/19/18 16:26	1
Methylene Chloride	**0.13**	**J B**	0.20	0.10	ppb v/v			09/19/18 16:26	1
Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010	ppb v/v			09/19/18 16:26	1
o-Xylene	**0.60**		0.020	0.010	ppb v/v			09/19/18 16:26	1
Tetrachloroethene	**0.018**	**J**	0.020	0.010	ppb v/v			09/19/18 16:26	1
Toluene	**2.8**	**B**	0.020	0.010	ppb v/v			09/19/18 16:26	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
trans-1,3-Dichloropropene	ND		0.020	0.0050	ppb v/v			09/19/18 16:26	1
Trichloroethene	**0.0064**	**J**	0.020	0.0050	ppb v/v			09/19/18 16:26	1
Trichlorofluoromethane	**0.24**		0.045	0.010	ppb v/v			09/19/18 16:26	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			09/19/18 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*09/19/18 16:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*		*09/19/18 16:26*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/19/18 16:26*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**12**	**B**	5.0	0.18	ppb v/v			09/20/18 02:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*		*09/20/18 02:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*09/20/18 02:55*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*		*09/20/18 02:55*	*1*

Surrogate Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DCA	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
440-220005-1	IAQ_TP1_091118K2	118	108	106
LCS 320-246517/3	Lab Control Sample	118	112	106
LCSD 320-246517/4	Lab Control Sample Dup	118	110	105
MB 320-246517/7	Method Blank	113	108	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
440-220005-1	IAQ_TP1_091118K2	106	101	103
LCS 320-246474/3	Lab Control Sample	106	105	119
LCSD 320-246474/4	Lab Control Sample Dup	101	105	89
MB 320-246474/7	Method Blank	105	98	89

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC
TO-15 SIM	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA-21	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

EPA-21 = "Compendium Of Methods For The Determination Of Toxic Organic Compounds In Ambient Air", Second Edition, EPA/625/R-96/010B, January 1999

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Client Sample ID: IAQ_TP1_091118K2

Lab Sample ID: 440-220005-1

Date Collected: 09/11/18 16:19

Matrix: Air

Date Received: 09/13/18 18:35

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	417 mL	250 mL	246517	09/20/18 02:55	AP1	TAL SAC
Total/NA	Analysis	TO-15 SIM		1	830 mL	500 mL	246474	09/19/18 16:26	AP1	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-246517/7 — **Client Sample ID: Method Blank**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 246517

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.446	J	5.0	0.18	ppb v/v			09/19/18 16:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*		*09/19/18 16:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*09/19/18 16:03*	*1*
Toluene-d8 (Surr)	*110*		*70 - 130*		*09/19/18 16:03*	*1*

Lab Sample ID: LCS 320-246517/3 — **Client Sample ID: Lab Control Sample**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 246517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	23.2		ppb v/v		116	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*
Toluene-d8 (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 320-246517/4 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 246517

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	20.0	23.2		ppb v/v		116	65 - 125	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*105*		*70 - 130*

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 320-246474/7 — **Client Sample ID: Method Blank**
Matrix: Air — **Prep Type: Total/NA**
Analysis Batch: 246474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
1,1,2,2-Tetrachloroethane	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.030	0.0050	ppb v/v			09/19/18 15:02	1
1,1,2-Trichloroethane	ND		0.050	0.0050	ppb v/v			09/19/18 15:02	1
1,1-Dichloroethane	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
1,1-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
1,2-Dichlorobenzene	ND		0.050	0.010	ppb v/v			09/19/18 15:02	1
1,2-Dichloroethane	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
1,4-Dichlorobenzene	ND		0.10	0.010	ppb v/v			09/19/18 15:02	1

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 320-246474/7
Matrix: Air
Analysis Batch: 246474

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
Carbon tetrachloride	0.00521	J	0.010	0.0050	ppb v/v			09/19/18 15:02	1
Chlorobenzene	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
Chloroform	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
cis-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
Dichlorodifluoromethane	0.0121	J	0.020	0.0050	ppb v/v			09/19/18 15:02	1
Ethylbenzene	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
m,p-Xylene	ND		0.040	0.020	ppb v/v			09/19/18 15:02	1
Methylene Chloride	0.159	J	0.20	0.10	ppb v/v			09/19/18 15:02	1
Methyl-t-Butyl Ether (MTBE)	ND		0.025	0.010	ppb v/v			09/19/18 15:02	1
o-Xylene	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
Tetrachloroethene	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1
Toluene	0.0116	J	0.020	0.010	ppb v/v			09/19/18 15:02	1
trans-1,2-Dichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
trans-1,3-Dichloropropene	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
Trichloroethene	ND		0.020	0.0050	ppb v/v			09/19/18 15:02	1
Trichlorofluoromethane	ND		0.045	0.010	ppb v/v			09/19/18 15:02	1
Vinyl chloride	ND		0.020	0.010	ppb v/v			09/19/18 15:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*09/19/18 15:02*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*		*09/19/18 15:02*	*1*
Toluene-d8 (Surr)	*89*		*70 - 130*		*09/19/18 15:02*	*1*

Lab Sample ID: LCS 320-246474/3
Matrix: Air
Analysis Batch: 246474

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.20	1.17		ppb v/v		97	65 - 132
1,1,2,2-Tetrachloroethane	1.20	1.19		ppb v/v		99	54 - 129
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	1.15		ppb v/v		96	65 - 125
1,1,2-Trichloroethane	1.20	1.25		ppb v/v		105	59 - 119
1,1-Dichloroethane	1.20	1.22		ppb v/v		102	63 - 134
1,1-Dichloroethene	1.20	1.15		ppb v/v		96	63 - 123
1,2-Dichlorobenzene	1.20	1.10		ppb v/v		91	57 - 134
1,2-Dichloroethane	1.20	1.18		ppb v/v		98	63 - 133
1,4-Dichlorobenzene	1.20	1.20		ppb v/v		100	64 - 136
Benzene	1.20	1.00		ppb v/v		84	63 - 123
Carbon tetrachloride	1.20	1.48		ppb v/v		123	10 - 150
Chlorobenzene	1.20	1.06		ppb v/v		88	60 - 120
Chloroform	1.20	1.13		ppb v/v		95	68 - 128
cis-1,2-Dichloroethene	1.20	1.14		ppb v/v		95	67 - 127
Dichlorodifluoromethane	1.20	1.14		ppb v/v		95	44 - 150
Ethylbenzene	1.20	1.07		ppb v/v		89	64 - 124
m,p-Xylene	2.40	2.14		ppb v/v		89	65 - 125

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 320-246474/3
Matrix: Air
Analysis Batch: 246474

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	1.20	1.19		ppb v/v		99	41 - 150
Methyl-t-Butyl Ether (MTBE)	1.20	1.28		ppb v/v		106	66 - 134
o-Xylene	1.20	1.08		ppb v/v		90	64 - 124
Tetrachloroethene	1.20	1.12		ppb v/v		93	61 - 121
Toluene	1.20	1.22		ppb v/v		101	61 - 121
trans-1,2-Dichloroethene	1.20	1.34		ppb v/v		112	67 - 127
trans-1,3-Dichloropropene	1.20	1.32		ppb v/v		110	63 - 123
Trichloroethene	1.20	1.07		ppb v/v		89	63 - 123
Trichlorofluoromethane	1.20	1.20		ppb v/v		100	63 - 136
Vinyl chloride	1.20	1.18		ppb v/v		98	51 - 139

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*119*		*70 - 130*

Lab Sample ID: LCSD 320-246474/4
Matrix: Air
Analysis Batch: 246474

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.20	1.19		ppb v/v		99	65 - 132	2	25
1,1,2,2-Tetrachloroethane	1.20	1.19		ppb v/v		99	54 - 129	0	25
1,1,2-Trichloro-1,2,2-trifluoroethane	1.20	1.05		ppb v/v		88	65 - 125	9	25
1,1,2-Trichloroethane	1.20	1.05		ppb v/v		87	59 - 119	18	25
1,1-Dichloroethane	1.20	1.02		ppb v/v		85	63 - 134	18	25
1,1-Dichloroethene	1.20	1.10		ppb v/v		91	63 - 123	5	25
1,2-Dichlorobenzene	1.20	1.11		ppb v/v		92	57 - 134	1	25
1,2-Dichloroethane	1.20	1.12		ppb v/v		94	63 - 133	5	25
1,4-Dichlorobenzene	1.20	1.20		ppb v/v		100	64 - 136	0	25
Benzene	1.20	1.03		ppb v/v		86	63 - 123	3	25
Carbon tetrachloride	1.20	1.39		ppb v/v		116	10 - 150	6	25
Chlorobenzene	1.20	1.05		ppb v/v		88	60 - 120	0	25
Chloroform	1.20	1.17		ppb v/v		97	68 - 128	3	25
cis-1,2-Dichloroethene	1.20	1.18		ppb v/v		98	67 - 127	3	25
Dichlorodifluoromethane	1.20	1.03		ppb v/v		86	44 - 150	10	25
Ethylbenzene	1.20	1.07		ppb v/v		89	64 - 124	0	25
m,p-Xylene	2.40	2.13		ppb v/v		89	65 - 125	0	25
Methylene Chloride	1.20	1.07		ppb v/v		89	41 - 150	11	25
Methyl-t-Butyl Ether (MTBE)	1.20	1.08		ppb v/v		90	66 - 134	17	25
o-Xylene	1.20	1.09		ppb v/v		90	64 - 124	0	25
Tetrachloroethene	1.20	1.06		ppb v/v		89	61 - 121	5	25
Toluene	1.20	0.951		ppb v/v		79	61 - 121	24	25
trans-1,2-Dichloroethene	1.20	1.14		ppb v/v		95	67 - 127	16	25
trans-1,3-Dichloropropene	1.20	1.21		ppb v/v		101	63 - 123	9	25
Trichloroethene	1.20	1.06		ppb v/v		88	63 - 123	1	25

Method: TO-15 SIM - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCSD 320-246474/4
Matrix: Air
Analysis Batch: 246474

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichlorofluoromethane			1.20	1.09		ppb v/v		91	63 - 136	10	25
Vinyl chloride			1.20	1.11		ppb v/v		92	51 - 139	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*89*		*70 - 130*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Air - GC/MS VOA

Analysis Batch: 246474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-220005-1	IAQ_TP1_091118K2	Total/NA	Air	TO-15 SIM	
MB 320-246474/7	Method Blank	Total/NA	Air	TO-15 SIM	
LCS 320-246474/3	Lab Control Sample	Total/NA	Air	TO-15 SIM	
LCSD 320-246474/4	Lab Control Sample Dup	Total/NA	Air	TO-15 SIM	

Analysis Batch: 246517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-220005-1	IAQ_TP1_091118K2	Total/NA	Air	TO-15	
MB 320-246517/7	Method Blank	Total/NA	Air	TO-15	
LCS 320-246517/3	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-246517/4	Lab Control Sample Dup	Total/NA	Air	TO-15	

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

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

Accreditation/Certification Summary

Client: de maximis, inc.
Project/Site: Omega-SemiAnnual IAQ Sept. 2018

TestAmerica Job ID: 440-220005-1
SDG: Whittier, CA

Laboratory: TestAmerica Irvine

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	CA ELAP 2706	06-30-19

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-020	01-20-21
ANAB	DoD ELAP		L2468	01-20-21
Arizona	State Program	9	AZ0708	08-11-19
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-19
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-19
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	10-31-18
Louisiana	NELAP	6	30612	06-30-19
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-19
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-19
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-19
USDA	Federal		P330-18-00239	01-17-21
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-19
Vermont	State Program	1	VT-4040	04-30-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-19
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605
phone 916.373.5600 fax

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Project Manager:** Jaime Dinello	**Samples Collected By:** Khalid Azhar	COC No:
Company Name: de maximis, inc.	**Phone:** 562.756.8149		1 of 1 COCs
Address: 1340 Reynolds Ave., Suite 104	**Email:** jdinello@demaximis.com		
City/State/Zip: San Diego, CA 92106			**For Lab Use Only:**
Phone: 562.756.8149	**Site Contact:** Trent Henderson		Walk-in Client:
FAX:	**TA Contact:** Danielle Roberts		Lab Sampling:
Project Name: Omega Semi-Annual IAQ-September 2018	**Anaylsis Turnaround Time**		
Sample Identification	Standard (Specific):____STD____x____		Job / SDG No.:
P O # 3139	Rush (Specifiy):_____		(See below for Add'l Items)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IAQ_TP1_091118K2	9/11/18	08:19	16:19	-30	-5	7304	34000523	X														

	Temperature (Fahrenheit)			
	Start	Interior	Ambient	
	Stop			

	Temperature (Fahrenheit)			
	Start	Interior	Ambient	
	Stop			

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:**	**Samples Received by:**	
Samples Relinquished by:	**Date / Time:**	**Received by:**	
Relinquished by:	**Date / Time:**	**Received by:**	

Lab Use Only: **Shipper Name:** **Opened by:** **Condition:**

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605
phone 916.373.5600 fax

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Project Manager: Jaime Dinello**	**Samples Collected By: Khalid Azhar**	COC No:
Company Name: demaximis	**Phone: 562 756 8149**		1 of 1 COCs
Address: 1340 Reynolds Ave. Ste 104	**Email: jdinello@demaximis.com**		
City/State/Zip Irvine, Ca 92624			**For Lab Use Only:**
Phone.	**Site Contact: Trent Henderson**		Walk-in Client:
FAX.	**TA Contact: Danielle Roberts**		Lab Sampling:
Project Name: Omega - SemiAnnual IAQ Sept. 2018	**Anaylsis Turnaround Time**		
Site/Location: Whittier, Ca	Standard (Specific):____STD____		Job / SDG No.
P O # 3139	Rush (Specifiy):____		(See below for Add'l Items)

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
IAQ_TP1_091118K2	9/11/2018	0819	1619	-30	-5	7304	34000523	X														
IAQ_MS1_091118K2	9/11/2018	0723	1523	-30	-5	8656	34000124	X														

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

Temperature (Fahrenheit)			
Start	Interior	Ambient	
Stop			

440-220005 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:** 9/13/18 1105	**Samples Received by:**	
Samples Relinquished by:	**Date / Time:** 9/13/18 1835	**Received by:**	
Relinquished by:	**Date / Time:**	**Received by:**	9/13/18 1835
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

230/23.1 IK-52

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-126526.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: danielle.roberts@testamericainc.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - California		Job #: 440-220005-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 9/18/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical Groundwater & Air	Project #: 44004586			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	TO15_SIM/Air_Pass_Can Project Specific List	TO15/Air_Pass_Can Acetone only	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
IAQ_TP1_091118K2 (440-220005-1)	9/11/18	16:19 Pacific		Air			X	X	1	LCS/LCSD is needed
IAQ_MS1_091118K2 (440-220005-2)	9/11/18	15:23 Pacific		Air			X	X	1	LCS/LCSD is needed

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*			***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*		
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2		Special Instructions/QC Requirements:		
Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by:	Date/Time: 9/17/18 1700	Company: TAW	Received by: Emily James	Date/Time: 9/18/18 9:05	Company: TA-SAC
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-220005-1
SDG Number: Whittier, CA

Login Number: 220005
List Number: 1
Creator: Soderblom, Tim

List Source: TestAmerica Irvine

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

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-220005-1
SDG Number: Whittier, CA

Login Number: 220005
List Number: 2
Creator: James, Emily M

List Source: TestAmerica Sacramento
List Creation: 09/18/18 12:22 PM

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 440-220005
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34000523	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.04	09/18/18	EJ for GKI
FINAL PRESSURE (PSIA)	20.10	09/18/18	EJ for GKI
Pressurization Gas: ☑ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.67			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.67		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
9/19/2018	ATMS12	

Canister DF = 1.67 X Load DF = 0.6024096 X Bag DF = 1 = FINAL DF 1.005683865
500 BVf (mLs)
830 Bvi (mLs)

Date	Instr.	File #
9/19/2018	MS 9	

Canister DF = 1.67 X Load DF = 0.5995204 X Bag DF = 1 = FINAL DF 1.000860441
LVf (mLs) 250 BVf (mLs)
LVi (mLs) 417 Bvi (mLs)

Date	Instr.	File #

Canister DF = 1.67 X Load DF = #DIV/0! X Bag DF = 1 = FINAL DF #DIV/0!
LVf (mLs) BVf (mLs)
LVi (mLs) Bvi (mLs)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 440-220005
Sample # 2

Client/Project:		VFR ID:		
Canister Serial #:	34000124	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	12.51	09/18/18	EJ for GKI
FINAL PRESSURE (PSIA)	19.77	09/18/18	EJ for GKI
Pressurization Gas: ☑ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.58			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.58		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

							Date	Instr.	File #		
							9/19/2018	ATMS12			
Canister DF =	1.58	X	Load DF =	0.6329114	X	Bag DF =	1	=	FINAL DF 1.000212488		
				500		BVf (mLs)					
				790		Bvi (mLs)					
							Date	Instr.	File #		
							9/19/2018	MS 9			
Canister DF =	1.58	X	Load DF =	4.3103448	X	Bag DF =	1	=	FINAL DF 6.811791946		
			LVf (mLs)	250		BVf (mLs)					
			LVi (mLs)	58		Bvi (mLs)					
							Date	Instr.	File #		
Canister DF =	1.58	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF #DIV/0!		
			LVf (mLs)			BVf (mLs)					
			LVi (mLs)			Bvi (mLs)					

CANISTER RECEIVING

Canister ID	Flow ID	Canister ID	Flow ID
1 34000124	1 7304	16	16
2 34000523	2 8656	17	17
(u) 3 34001211	3 7242 (u)	18	18
4 34001367	4 8557	19	19
5 34001802	5 7430	20	20
6 34000209	6 8923	21	21
7	7	22	22
8	8	23	23
9	9	24	24
10	10	25	25
11	11	26	26
12	12	27	27
13	13	28	28
14	14	29	29
15	15	30	30

325B Pelican Case Inventory

Case ID:_____ # of Filter Caps:_____ Zip Seal:

Temperature:_____ # of Sample Tubes:_____

# of Wrenches:_____ # of Unused Tubes:_____

# of Gloves:_____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

440-220005 Field Sheet

Sample Receiving Notes - Job_____

Service: FedEx UPS Lab Courier Client Drop Off

P.O. Std. Overnight 2-Day Ground Other:_____

Tracking #: Box 1: 4538 3725 9262

Box 2: 4538 3725 9273

Notes:_____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations. File in the job folder with the COC.

Cooler Custody Seal: yes

Transferred by Sacramento - Yes ☐ No ☒

Bags: _____ 1L, _____ 2L, _____ 10L

Canisters: _____ 1L, 2 6L, TA ☒ Non TA ☐

Canisters Unused: _____ 1L, 4 6L

Co-Locators _____, # Gauges: _____

Flow Regulators: 6

Initial & Date EJ 9/18/18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

89-434 RIT2 EXP 07/19

ORIGIN ID:DTHA (949) 261-1022
TESTAMERICA-IRVINE/SAMPLE CONTROL

17461 DERIAN AVE
SUITE 100
IRVINE, CA 92614
UNITED STATES US

SHIP DATE: 17SEP18
ACTWGT: 16.80 LB
CAD: 616730/CAFE3210

BILL THIRD PARTY

SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
880 RIVERSIDE PARKWAY

WEST SACRAMENTO CA 95605
(916) 373-5600 REF: S440-149424
PO: SUBCONTRACT WORK ORDERS DEPT: WEST SACRAMENTO

FedEx Express

1 of 2
TRK# 0201 4538 3725 9262
MASTER
WD BLUA

TUE - 18 SEP 10:30A
PRIORITY OVERNIGHT

95605
CA-US SMF

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

159489-434 RIT2 EXP 07/19

ORIGIN ID:DTHA (949) 261-1022
TESTAMERICA-IRVINE/SAMPLE CONTROL

17461 DERIAN AVE
SUITE 100
IRVINE, CA 92614
UNITED STATES US

SHIP DATE: 17SEP18
ACTWGT: 35.20 LB
CAD: 616730/CAFE3210

BILL THIRD PARTY

SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
880 RIVERSIDE PARKWAY

WEST SACRAMENTO CA 95605
(916) 373-5600 REF: S440-149424
PO: SUBCONTRACT WORK ORDERS DEPT: WEST SACRAMENTO

FedEx Express

2 of 2
MPS# 0263 4538 3725 9273
Mstr# 4538 3725 9262 0201
WD BLUA

TUE - 18 SEP 10:30A
PRIORITY OVERNIGHT

95605
CA-US SMF

ENVIRONMENTAL SAMPLING SUPPLY
ULTRA CLEANED CONTAINERS

CUSTODY SEAL

IF SEAL IS BROKEN
CHECK CONTENTS
BEFORE ACCEPTING

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification
Batch Certification

Date Cleaned/Batch ID: B 08-17-18

Date of QC: 8/21/18

Data File Number: C:\MSDUCEM\1\DATA\180821\

(File ID for certification analysis of canister designated below)

320-42244 Chain of Custody

CANISTER ID NUMBERS

*	34000523 MS6 18082109.d
	34000494
	8177
	34000592
	34002141
	34001443
	34000269
	34001404
	34001128
	34000205
	34001285
	7907

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED

1st Level Reviewed By — Date: 8/23/18

2nd Level Reviewed By — Date: 8/28/18

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-42244-1
SDG No.:
Client Sample ID: 34000523
Lab Sample ID: 320-42244-1
Matrix: Air
Lab File ID: MS618082109.D
Analysis Method: TO-15
Date Collected: 08/17/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 08/22/2018 02:33
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 241288
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.52	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	0.67	J	0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.27
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-42244-1
SDG No.:
Client Sample ID: 34000523 | Lab Sample ID: 320-42244-1
Matrix: Air | Lab File ID: MS618082109.D
Analysis Method: TO-15 | Date Collected: 08/17/2018 00:00
Sample wt/vol: 500(mL) | Date Analyzed: 08/22/2018 02:33
Soil Aliquot Vol: | Dilution Factor: 1
Soil Extract Vol.: | GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture: | Level: (low/med) Low
Analysis Batch No.: 241288 | Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.12
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	0.23	J	0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	0.13	J B	0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.21
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-42244-1
SDG No.:
Client Sample ID: 34000523
Lab Sample ID: 320-42244-1
Matrix: Air
Lab File ID: MS618082109.D
Analysis Method: TO-15
Date Collected: 08/17/2018 00:00
Sample wt/vol: 500(mL)
Date Analyzed: 08/22/2018 02:33
Soil Aliquot Vol:
Dilution Factor: 1
Soil Extract Vol.:
GC Column: RTX-Volatiles ID: 0.32(mm)
% Moisture:
Level: (low/med) Low
Analysis Batch No.: 241288
Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054
1330-20-7	Xylenes, Total	ND		1.2	0.074
87-61-6	1,2,3-Trichlorobenzene	ND		2.0	0.62
60-29-7	Ethyl ether	ND		0.80	0.20
71-36-3	n-Butanol	ND		2.0	0.26
111-84-2	n-Nonane	ND		0.80	0.058
67-63-0	2-Propanol	ND		2.0	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	85		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D
Lims ID: 320-42244-A-1
Client ID: 34000523
Sample Type: Client
Inject. Date: 22-Aug-2018 02:33:30 ALS Bottle#: 4 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 320-42244-A-1
Misc. Info.: 500 mL CAN CERT
Operator ID: LHS Instrument ID: ATMS6

Method: \\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\TO15_ATMS6.m
Limit Group: MSA - TO15 - ICAL
Last Update: 23-Aug-2018 10:52:34 Calib Date: 21-Aug-2018 22:47:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082105.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK018

First Level Reviewer: phanthasena Date: 22-Aug-2018 17:14:06

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.024	11.030	-0.006	97	52905	4.00	
* 2 1,4-Difluorobenzene	114	13.196	13.202	-0.006	95	207677	4.00	
* 3 Chlorobenzene-d5 (IS)	117	19.967	19.967	0.000	87	157797	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	12.229	12.235	-0.012	44	77464	4.02	
$ 5 Toluene-d8 (Surr)	100	16.597	16.589	0.001	99	125377	4.06	
$ 6 4-Bromofluorobenzene (Surr	95	22.589	22.582	0.000	0	78935	3.39	
11 Propene	41	3.182	3.199	-0.018	95	1978	0.1283	
13 Dichlorodifluoromethane	85	3.231	3.253	-0.024	97	2555	0.0673	
17 Butane	43	3.803	3.825	-0.024	82	1193	0.0496	
27 Pentane	43	4.849	4.871	-0.024	71	971	0.0471	
26 Trichlorofluoromethane	101	5.360	5.393	-0.036	1	951	0.0252	
32 Acetone	43	6.248	6.263	-0.018	95	11685	0.5174	
39 Methylene Chloride	49	7.508	7.528	-0.024	98	4694	0.2268	
40 Carbon disulfide	76	7.538	7.546	-0.012	96	18676	0.6675	
44 Hexane	41	8.664	8.683	-0.024	42	707	0.0404	
60 n-Butanol	56	12.350	12.349	-0.006	66	1334	0.0843	

Reagents:

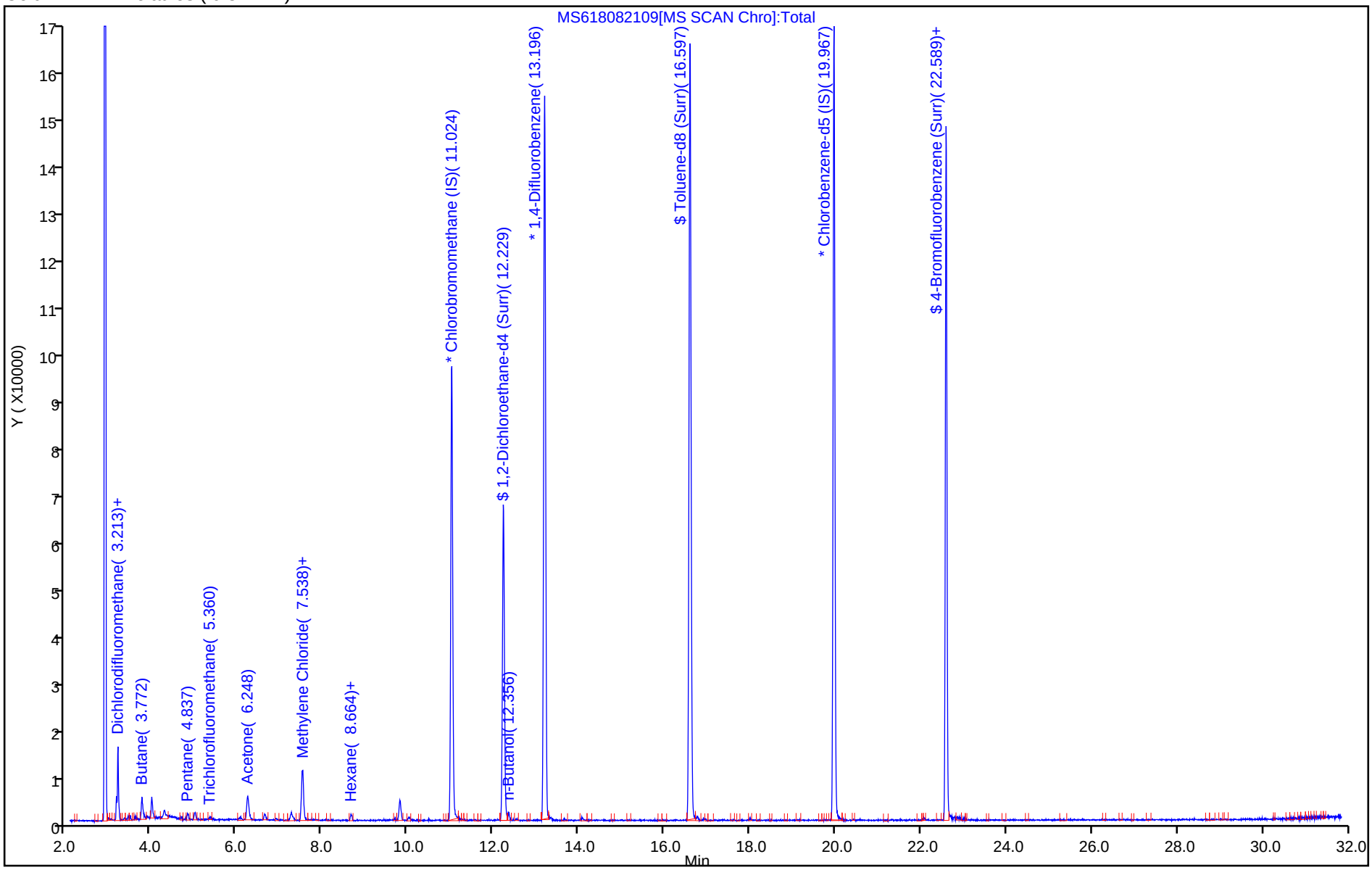
VAMSIS20_00206 Amount Added: 50.00 Units: mL Run Reagent

Report Date: 23-Aug-2018 10:53:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6	Operator ID:	LHS
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1	Worklist Smp#:	9
Client ID:	34000523				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		

Column: RTX Volatiles (0.32 mm)

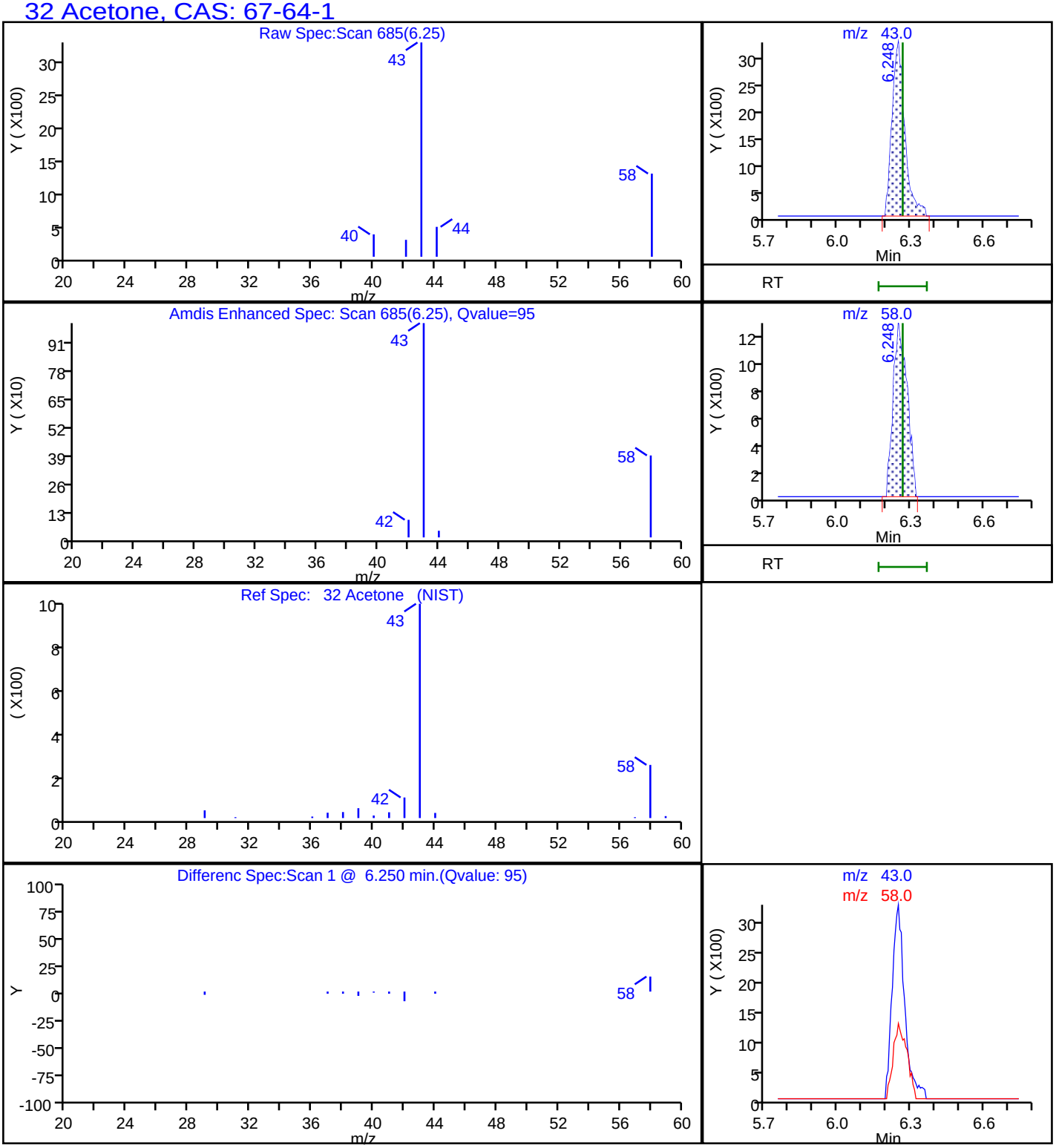


Report Date: 23-Aug-2018 10:53:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

32 Acetone, CAS: 67-64-1

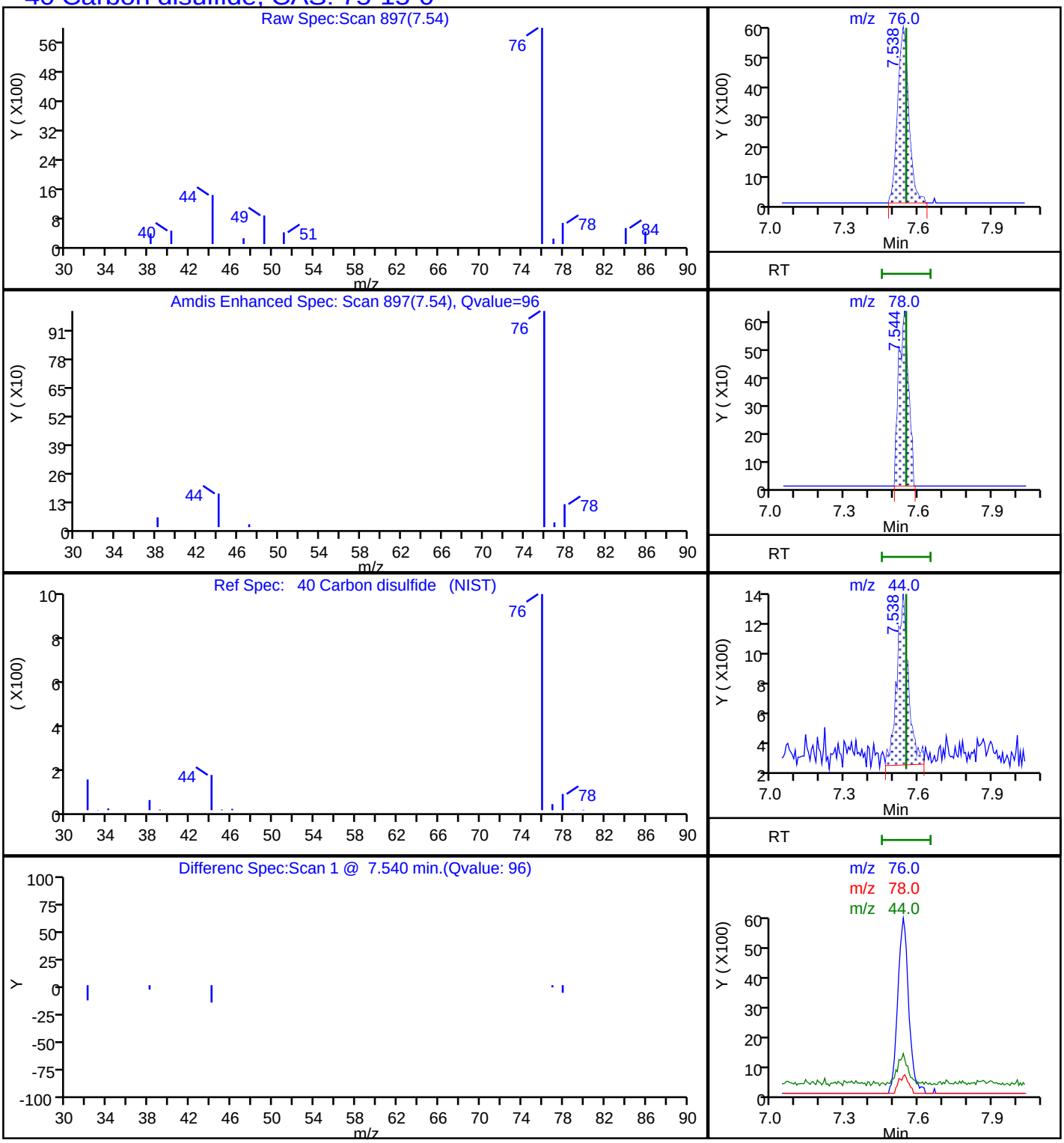


Report Date: 23-Aug-2018 10:53:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

40 Carbon disulfide, CAS: 75-15-0

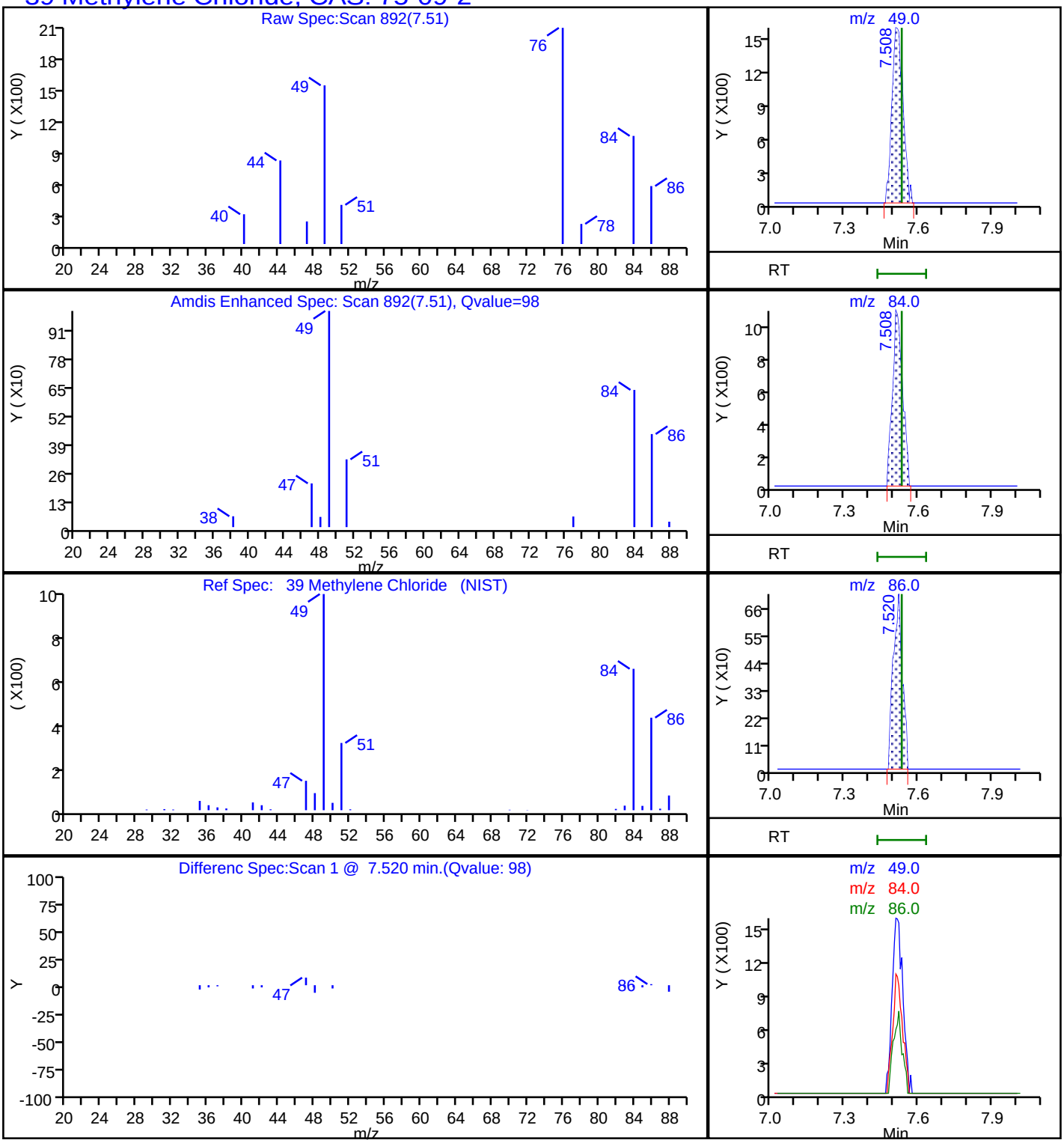


Report Date: 23-Aug-2018 10:53:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

39 Methylene Chloride, CAS: 75-09-2

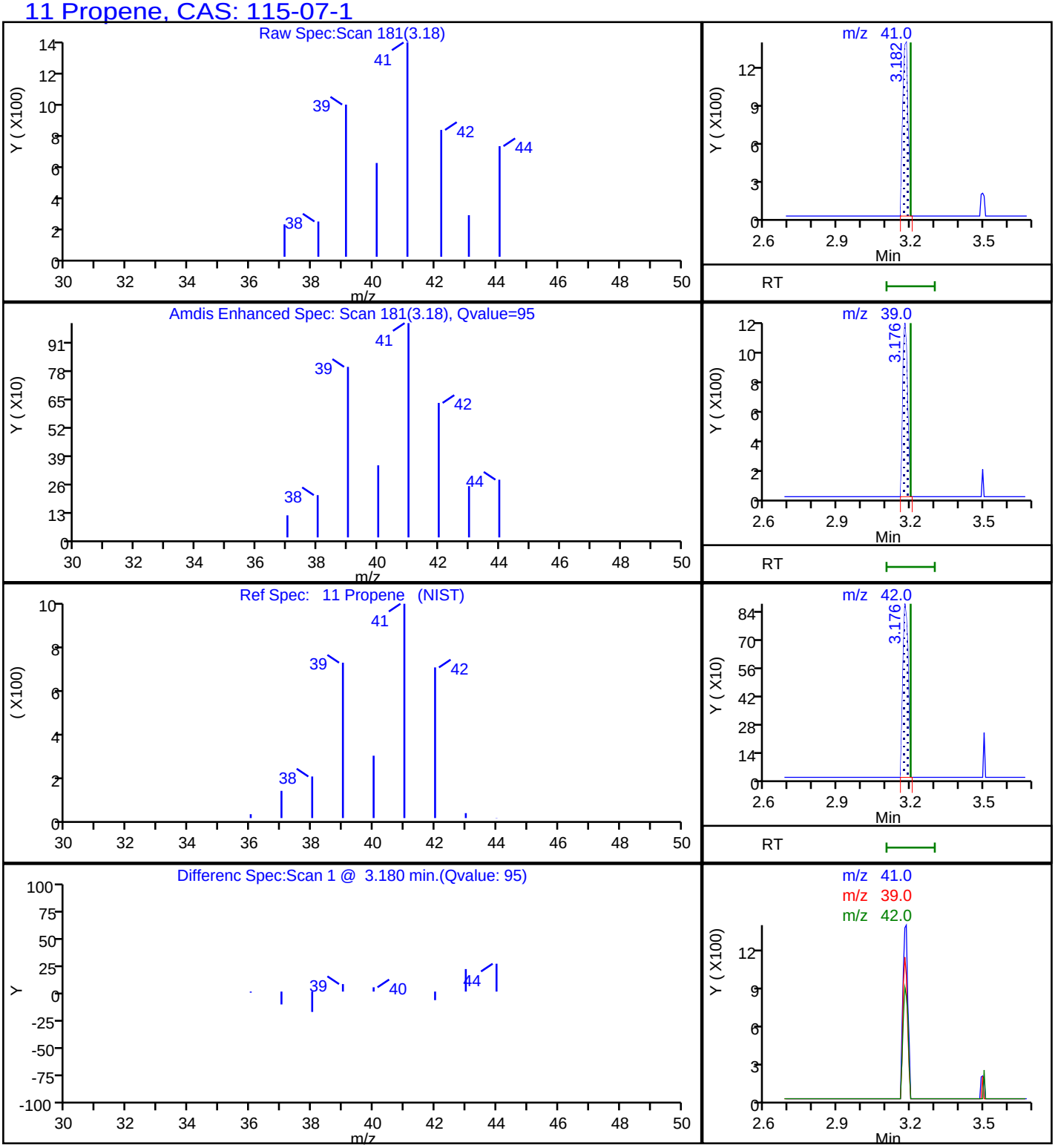


Report Date: 23-Aug-2018 10:53:01 Chrom Revision: 2.3 19-Jul-2018 15:14:50

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

11 Propene, CAS: 115-07-1



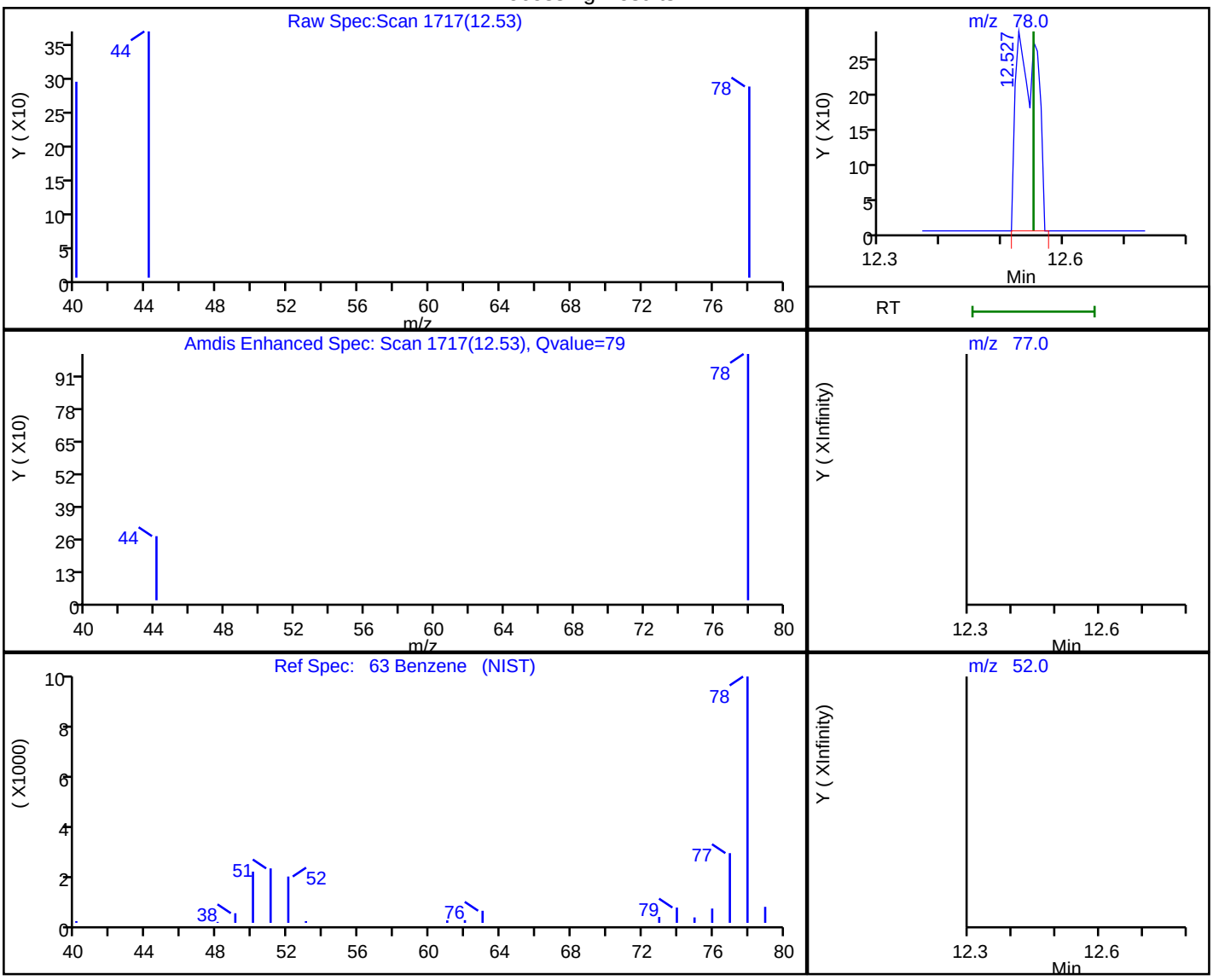
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

63 Benzene, CAS: 71-43-2

Processing Results



RT	Mass	Response	Amount
12.53	78.00	661	0.014441
12.55	77.00	0	
12.55	52.00	0	

Reviewer: phanthasena, 22-Aug-2018 17:13:44

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

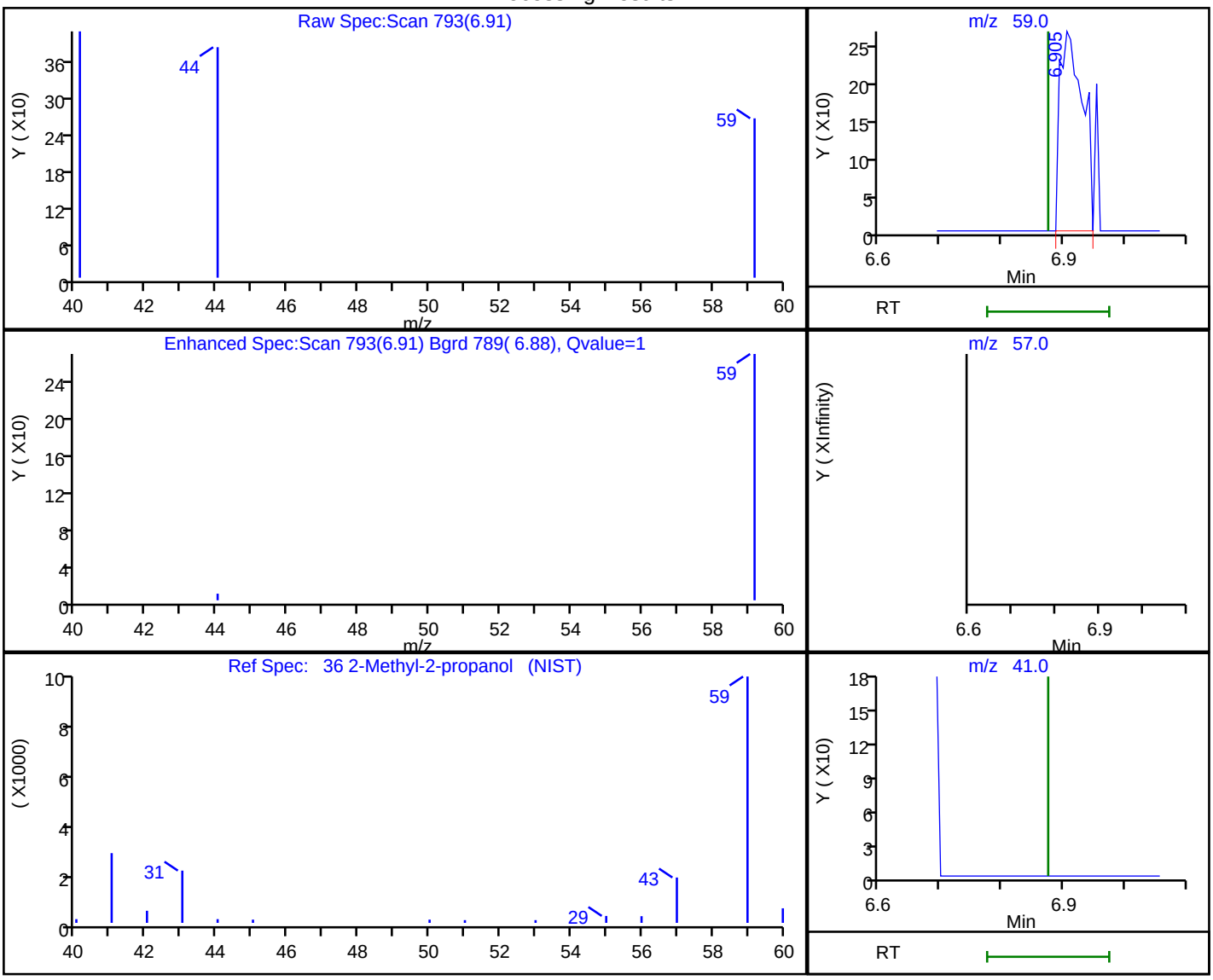
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

36 2-Methyl-2-propanol, CAS: 75-65-0

Processing Results



RT	Mass	Response	Amount
6.91	59.00	678	0.015267
6.87	57.00	0	
6.87	41.00	0	

Reviewer: phanthasena, 22-Aug-2018 17:12:11

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

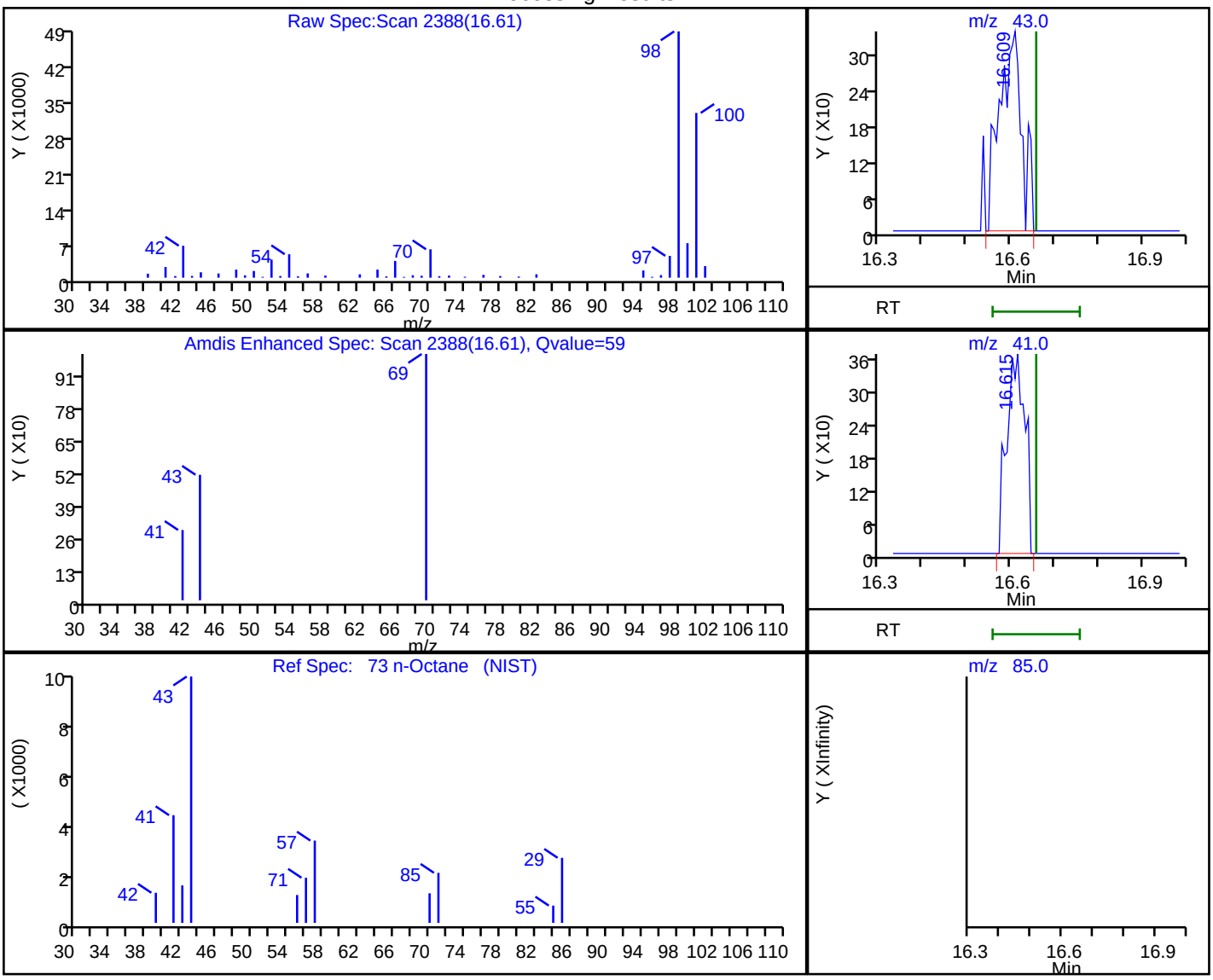
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

73 n-Octane, CAS: 111-65-9

Processing Results



RT	Mass	Response	Amount
16.61	43.00	1219	0.028370
16.61	41.00	1062	
16.66	85.00	0	

Reviewer: phanthasena, 22-Aug-2018 17:13:51

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

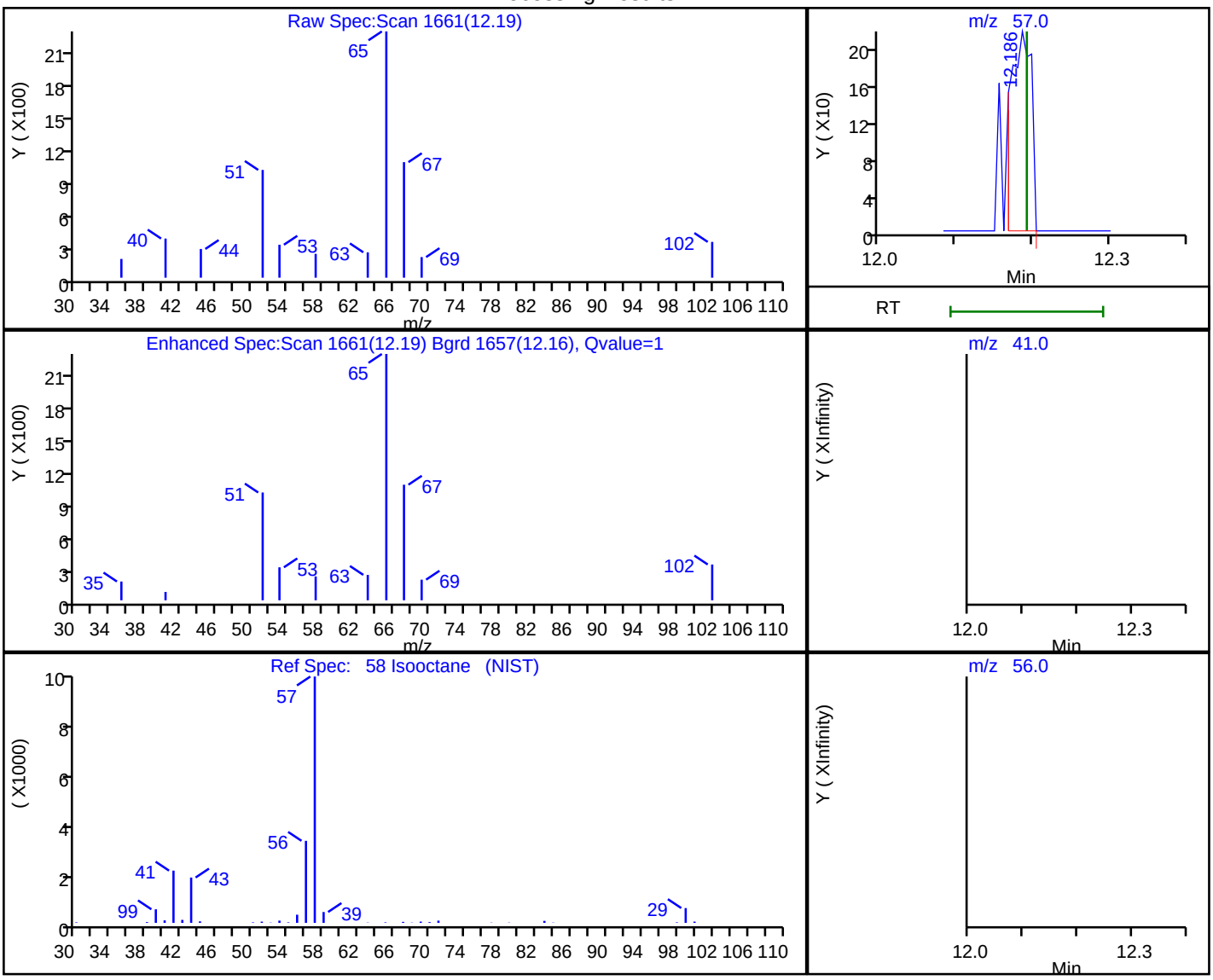
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

58 Isooctane, CAS: 540-84-1

Processing Results



RT	Mass	Response	Amount
12.19	57.00	410	0.004933
12.19	41.00	0	
12.19	56.00	0	

Reviewer: phanthasena, 22-Aug-2018 17:13:40

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

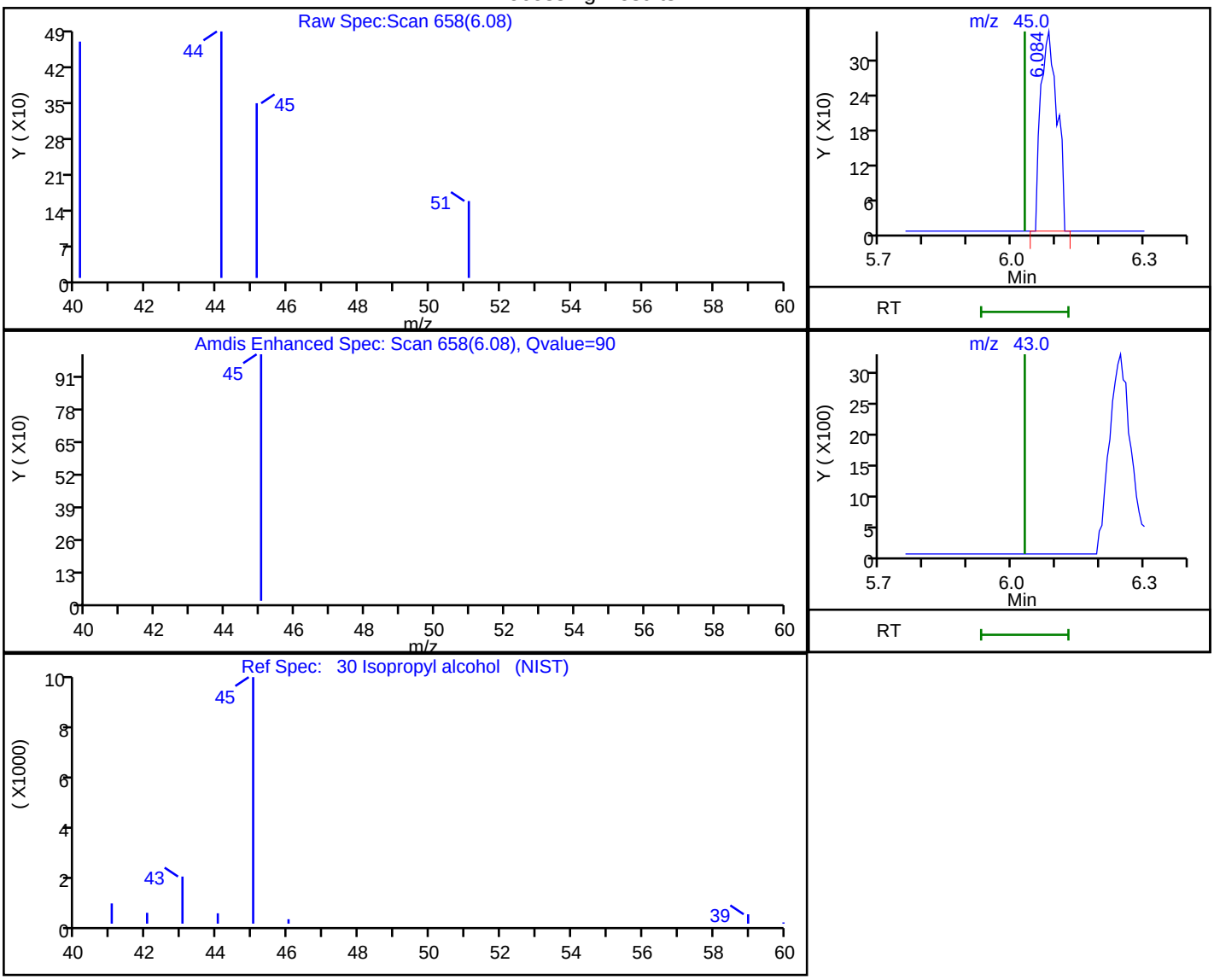
User Disabled Compound Report

TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS6\20180821-63066.b\MS618082109.D				
Injection Date:	22-Aug-2018 02:33:30	Instrument ID:	ATMS6		
Lims ID:	320-42244-A-1	Lab Sample ID:	320-42244-1		
Client ID:	34000523				
Operator ID:	LHS	ALS Bottle#:	4	Worklist Smp#:	9
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS6	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

30 Isopropyl alcohol, CAS: 67-63-0

Processing Results



RT	Mass	Response	Amount
6.08	45.00	890	0.030359
6.03	43.00	0	

Reviewer: vanommens, 23-Aug-2018 10:52:30

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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7/16/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-OU1 SVE Monthly GAC
Project #:
Workorder #: 1807099

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 7/9/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1807099

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1 SVE Monthly GAC
DATE RECEIVED:	07/09/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	07/16/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_070218	TO-15	4.5 "Hg	15 psi
02A	OC_SVE_MID_GAC_070218	TO-15	6.0 "Hg	15 psi
03A	OC_SVE_INF_GAC_070218	TO-15	4.0 "Hg	15 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 07/16/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1807099

Three 1 Liter Summa Canister samples were received on July 09, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_070218

Lab ID#: 1807099-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.5	6.7	8.4
Freon 113	1.2	1.5	9.1	12
1,1-Dichloroethene	1.2	4.1	4.7	16
2-Butanone (Methyl Ethyl Ketone)	4.8	22	14	64
1,1,1-Trichloroethane	1.2	2.8	6.5	16
TNMOC ref. to Heptane (MW=100)	24	400	97	1600

Client Sample ID: OC_SVE_MID_GAC_070218

Lab ID#: 1807099-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.5	7.1	8.6
Freon 113	1.3	6.8	9.6	52
1,1-Dichloroethene	1.3	3.2	5.0	13
2-Butanone (Methyl Ethyl Ketone)	5.0	25	15	74
Chloroform	1.3	1.3	6.2	6.4
1,1,1-Trichloroethane	1.3	5.7	6.9	31
1,2-Dichloroethane	1.3	1.5	5.1	6.0
TNMOC ref. to Heptane (MW=100)	25	100	100	410

Client Sample ID: OC_SVE_INF_GAC_070218

Lab ID#: 1807099-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.5	6.5	8.4
Freon 113	1.2	9.8	8.9	75
1,1-Dichloroethene	1.2	3.0	4.6	12
2-Butanone (Methyl Ethyl Ketone)	4.7	11	14	34
1,1,1-Trichloroethane	1.2	8.2	6.4	45
Trichloroethene	1.2	9.0	6.3	48
Tetrachloroethene	1.2	130	7.9	870
TNMOC ref. to Heptane (MW=100)	23	2000	95	8200

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Client Sample ID: OC_SVE_EFF_GAC_070218

Lab ID#: 1807099-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071117**	**Date of Collection:**	**7/2/18 10:34:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**7/11/18 07:05 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	1.5	6.7	8.4
Freon 113	1.2	1.5	9.1	12
1,1-Dichloroethene	1.2	4.1	4.7	16
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	22	14	64
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	2.8	6.5	16
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
TNMOC ref. to Heptane (MW=100)	24	400	97	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: OC_SVE_MID_GAC_070218

Lab ID#: 1807099-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071114**	**Date of Collection:**	**7/2/18 10:35:00 AM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**7/11/18 05:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.2	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Freon 11	1.3	1.5	7.1	8.6
Freon 113	1.3	6.8	9.6	52
1,1-Dichloroethene	1.3	3.2	5.0	13
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Hexane	1.3	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	25	15	74
Chloroform	1.3	1.3	6.2	6.4
1,1,1-Trichloroethane	1.3	5.7	6.9	31
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	1.5	5.1	6.0
Trichloroethene	1.3	Not Detected	6.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Toluene	1.3	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	Not Detected	8.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected
TNMOC ref. to Heptane (MW=100)	25	100	100	410

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: OC_SVE_INF_GAC_070218

Lab ID#: 1807099-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071115**	**Date of Collection:**	**7/2/18 10:36:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**7/11/18 05:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	1.5	6.5	8.4
Freon 113	1.2	9.8	8.9	75
1,1-Dichloroethene	1.2	3.0	4.6	12
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	11	14	34
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	8.2	6.4	45
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	9.0	6.3	48
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	130	7.9	870
o-Xylene	1.2	Not Detected	5.0	Not Detected
TNMOC ref. to Heptane (MW=100)	23	2000	95	8200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	116	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1807099-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071106**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/11/18 12:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1807099-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/11/18 10:16 AM**	

Compound	**%Recovery**
Freon 12	106
Vinyl Chloride	112
Freon 11	106
Freon 113	105
1,1-Dichloroethene	97
2-Propanol	87
Carbon Disulfide	95
Methylene Chloride	91
Hexane	97
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	100
Chloroform	104
1,1,1-Trichloroethane	100
Carbon Tetrachloride	108
Benzene	114
1,2-Dichloroethane	104
Trichloroethene	106
1,4-Dioxane	114
Toluene	113
1,1,2-Trichloroethane	110
Tetrachloroethene	117
o-Xylene	124
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	109	70-130

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Client Sample ID: LCS

Lab ID#: 1807099-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/11/18 10:40 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	101	70-130
Vinyl Chloride	106	70-130
Freon 11	100	70-130
Freon 113	101	70-130
1,1-Dichloroethene	97	70-130
2-Propanol	88	70-130
Carbon Disulfide	92	70-130
Methylene Chloride	84	70-130
Hexane	96	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	111	70-130
Benzene	106	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	100	70-130
1,4-Dioxane	110	70-130
Toluene	105	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	112	70-130
o-Xylene	123	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	110	70-130

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Client Sample ID: LCSD

Lab ID#: 1807099-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p071104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 7/11/18 11:05 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	103	70-130
Vinyl Chloride	114	70-130
Freon 11	103	70-130
Freon 113	102	70-130
1,1-Dichloroethene	99	70-130
2-Propanol	90	70-130
Carbon Disulfide	94	70-130
Methylene Chloride	87	70-130
Hexane	100	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	116	70-130
Benzene	105	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	100	70-130
1,4-Dioxane	108	70-130
Toluene	105	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	110	70-130
o-Xylene	120	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	109	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 07/02/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1	OC_SVE_EFF_GAC_070218	SP-EFF-GAC	SV	40995	1 L	23462	7/2/2018	1029	-30	7/2/2018	1034	-5	X
02A	2	OC_SVE_MID_GAC_070218	SP-MID-GAC	SV	112854	1 L	23197	7/2/2018	1030	-30	7/2/2018	1035	-5	X
03A	3	OC_SVE_INF_GAC_070218	SP-INF-GAC	SV	111637	1 L	24281	7/2/2018	1032	-30	7/2/2018	1036	-4	X
	4													
	5													
	6													
	7													
	8													
	9													
	10													
	11													
	12													
	13													
	14													
	15													

Custody Seal Intact? Y N None Temp NA
Fedex

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	ZATL 07/09/18		09 50
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

1807099

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8/17/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly GAC
Project #:
Workorder #: 1808198

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 8/10/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1808198

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly GAC
DATE RECEIVED:	08/10/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/17/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_080618	TO-15	3.9 "Hg	15 psi
02A	OC_SVE_MID_GAC_080618	TO-15	6.7 "Hg	14.9 psi
03A	OC_SVE_INF_GAC_080618	TO-15	6.5 "Hg	14.3 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 08/17/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1808198

Three 1 Liter Summa Canister samples were received on August 10, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_080618

Lab ID#: 1808198-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.2	3.1	4.6	12
2-Butanone (Methyl Ethyl Ketone)	4.6	90	14	270
1,1,1-Trichloroethane	1.2	1.4	6.3	7.9
TNMOC ref. to Heptane (MW=100)	23	470	95	1900

Client Sample ID: OC_SVE_MID_GAC_080618

Lab ID#: 1808198-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.6	7.3	9.0
Freon 113	1.3	5.2	9.9	40
1,1-Dichloroethene	1.3	4.3	5.1	17
2-Butanone (Methyl Ethyl Ketone)	5.2	170	15	510
1,1,1-Trichloroethane	1.3	4.4	7.1	24
TNMOC ref. to Heptane (MW=100)	26	390	100	1600

Client Sample ID: OC_SVE_INF_GAC_080618

Lab ID#: 1808198-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.5	7.1	8.4
Freon 113	1.3	12	9.6	88
1,1-Dichloroethene	1.3	3.8	5.0	15
2-Butanone (Methyl Ethyl Ketone)	5.0	97	15	280
1,1,1-Trichloroethane	1.3	12	6.9	64
Trichloroethene	1.3	8.6	6.8	46
Tetrachloroethene	1.3	170	8.5	1200
TNMOC ref. to Heptane (MW=100)	25	1500	100	6100

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Client Sample ID: OC_SVE_EFF_GAC_080618

Lab ID#: 1808198-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081408**	**Date of Collection:**	**8/6/18 10:09:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**8/14/18 04:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	3.1	4.6	12
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	90	14	270
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	1.4	6.3	7.9
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
TNMOC ref. to Heptane (MW=100)	23	470	95	1900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: OC_SVE_MID_GAC_080618

Lab ID#: 1808198-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081411**	**Date of Collection:**	**8/6/18 10:10:00 AM**
Dil. Factor:	**2.59**	**Date of Analysis:**	**8/14/18 05:56 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.4	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Freon 11	1.3	1.6	7.3	9.0
Freon 113	1.3	5.2	9.9	40
1,1-Dichloroethene	1.3	4.3	5.1	17
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Hexane	1.3	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	170	15	510
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	4.4	7.1	24
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	Not Detected	7.0	Not Detected
1,4-Dioxane	5.2	Not Detected	19	Not Detected
Toluene	1.3	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.1	Not Detected
Tetrachloroethene	1.3	Not Detected	8.8	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
TNMOC ref. to Heptane (MW=100)	26	390	100	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: OC_SVE_INF_GAC_080618

Lab ID#: 1808198-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081414**	**Date of Collection:**	**8/6/18 10:11:00 AM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**8/14/18 07:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.2	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Freon 11	1.3	1.5	7.1	8.4
Freon 113	1.3	12	9.6	88
1,1-Dichloroethene	1.3	3.8	5.0	15
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Hexane	1.3	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	97	15	280
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	12	6.9	64
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	8.6	6.8	46
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Toluene	1.3	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	170	8.5	1200
o-Xylene	1.3	Not Detected	5.5	Not Detected
TNMOC ref. to Heptane (MW=100)	25	1500	100	6100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1808198-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081407**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/18 02:24 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	93	70-130

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Client Sample ID: CCV

Lab ID#: 1808198-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/18 10:00 AM**	

Compound	**%Recovery**
Freon 12	97
Vinyl Chloride	94
Freon 11	94
Freon 113	96
1,1-Dichloroethene	95
2-Propanol	86
Carbon Disulfide	96
Methylene Chloride	90
Hexane	88
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	90
Chloroform	98
1,1,1-Trichloroethane	96
Carbon Tetrachloride	96
Benzene	98
1,2-Dichloroethane	100
Trichloroethene	100
1,4-Dioxane	93
Toluene	99
1,1,2-Trichloroethane	102
Tetrachloroethene	99
o-Xylene	97
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCS

Lab ID#: 1808198-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/18 10:43 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	100	70-130
Vinyl Chloride	102	70-130
Freon 11	98	70-130
Freon 113	98	70-130
1,1-Dichloroethene	98	70-130
2-Propanol	87	70-130
Carbon Disulfide	102	70-130
Methylene Chloride	93	70-130
Hexane	93	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
Chloroform	103	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	98	70-130
Benzene	101	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	110	70-130
1,4-Dioxane	94	70-130
Toluene	100	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	101	70-130
o-Xylene	98	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: LCSD

Lab ID#: 1808198-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17081404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/14/18 11:12 AM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	99	70-130
Vinyl Chloride	100	70-130
Freon 11	98	70-130
Freon 113	98	70-130
1,1-Dichloroethene	99	70-130
2-Propanol	88	70-130
Carbon Disulfide	102	70-130
Methylene Chloride	93	70-130
Hexane	94	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	98	70-130
Benzene	100	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	112	70-130
1,4-Dioxane	94	70-130
Toluene	100	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	100	70-130
o-Xylene	97	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	95	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 08/06/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☒ EDD
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.3)
01A	1	OC_SVE_EFF_GAC_080618	SP-EFF-GAC	SV	1L1597	1 L	23187	8/6/2018	1004	-30	8/3/2018	1009	-4	X
02A	2	OC_SVE_MID_GAC_080618	SP-MID-GAC	SV	1L2503	1 L	23645	8/6/2018	1005	-29	8/6/2018	1010	-4	X
03A	3	OC_SVE_INF_GAC_080618	SP-INF-GAC	SV	1L2439	1 L	23356	8/6/2018	1006	-30	8/6/2018	1011	-5	X
	4													
	5													
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	7													
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	9													
	10													
	11													
	12													
	13													
	14													
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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature] ZATL	8/10/18	935
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Custody Seal Intact?

Y N None Temp NA
FEDEX

1808198

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9/17/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - OU1 SVE Monthly GAC Sampling
Project #:
Workorder #: 1809123

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/10/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1809123

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - OU1 SVE Monthly GAC Sampling
DATE RECEIVED:	09/10/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/17/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_EFF_GAC_090418	TO-15	5.7 "Hg	15.1 psi
02A	OC_SVE_MID_GAC_090418	TO-15	4.3 "Hg	15 psi
03A	OC_SVE_INF_GAC_090418	TO-15	6.5 "Hg	15.1 psi
04A	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 09/17/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1809123

Three 1 Liter Summa Canister samples were received on September 10, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

The samples arrived at the laboratory without a Chain of Custody (COC). The client subsequently provided the COC by e-mail on 09/10/2018.

The Chain of Custody (COC) was not relinquished properly. A signature was not provided by the field sampler.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_EFF_GAC_090418

Lab ID#: 1809123-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.6	7.0	14
Freon 113	1.2	1.3	9.6	9.7
1,1-Dichloroethene	1.2	3.6	5.0	14
2-Butanone (Methyl Ethyl Ketone)	5.0	150	15	440
1,1,1-Trichloroethane	1.2	2.3	6.8	12
TNMOC ref. to Heptane (MW=100)	25	640	100	2600

Client Sample ID: OC_SVE_MID_GAC_090418

Lab ID#: 1809123-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.3	6.6	13
Freon 113	1.2	15	9.0	120
1,1-Dichloroethene	1.2	5.4	4.7	22
Hexane	1.2	1.2	4.2	4.3
2-Butanone (Methyl Ethyl Ketone)	4.7	160	14	480
Chloroform	1.2	1.5	5.8	7.6
1,1,1-Trichloroethane	1.2	9.1	6.4	50
TNMOC ref. to Heptane (MW=100)	24	370	96	1500

Client Sample ID: OC_SVE_INF_GAC_090418

Lab ID#: 1809123-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.3	1.6	7.3	8.7
Freon 113	1.3	18	9.9	140
1,1-Dichloroethene	1.3	3.7	5.1	15
2-Butanone (Methyl Ethyl Ketone)	5.2	220	15	650
1,1,1-Trichloroethane	1.3	20	7.1	110
Trichloroethene	1.3	8.7	7.0	47
Tetrachloroethene	1.3	190	8.8	1300
o-Xylene	1.3	1.4	5.6	6.0
TNMOC ref. to Heptane (MW=100)	26	1600	100	6500

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_INF_GAC_090418

Lab ID#: 1809123-03A

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Client Sample ID: OC_SVE_EFF_GAC_090418

Lab ID#: 1809123-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091321**	**Date of Collection:**	**9/4/18 1:13:00 PM**
Dil. Factor:	**2.50**	**Date of Analysis:**	**9/13/18 11:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	2.6	7.0	14
Freon 113	1.2	1.3	9.6	9.7
1,1-Dichloroethene	1.2	3.6	5.0	14
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	150	15	440
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	2.3	6.8	12
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.5	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected
TNMOC ref. to Heptane (MW=100)	25	640	100	2600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE_MID_GAC_090418

Lab ID#: 1809123-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091322**	**Date of Collection:**	**9/4/18 1:15:00 PM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**9/14/18 12:07 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Freon 11	1.2	2.3	6.6	13
Freon 113	1.2	15	9.0	120
1,1-Dichloroethene	1.2	5.4	4.7	22
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Hexane	1.2	1.2	4.2	4.3
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	160	14	480
Chloroform	1.2	1.5	5.8	7.6
1,1,1-Trichloroethane	1.2	9.1	6.4	50
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
TNMOC ref. to Heptane (MW=100)	24	370	96	1500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: OC_SVE_INF_GAC_090418

Lab ID#: 1809123-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091323**	**Date of Collection:**	**9/4/18 1:16:00 PM**
Dil. Factor:	**2.59**	**Date of Analysis:**	**9/14/18 12:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.4	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Freon 11	1.3	1.6	7.3	8.7
Freon 113	1.3	18	9.9	140
1,1-Dichloroethene	1.3	3.7	5.1	15
2-Propanol	5.2	Not Detected	13	Not Detected
Carbon Disulfide	5.2	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	45	Not Detected
Hexane	1.3	Not Detected	4.6	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.2	220	15	650
Chloroform	1.3	Not Detected	6.3	Not Detected
1,1,1-Trichloroethane	1.3	20	7.1	110
Carbon Tetrachloride	1.3	Not Detected	8.1	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	8.7	7.0	47
1,4-Dioxane	5.2	Not Detected	19	Not Detected
Toluene	1.3	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.1	Not Detected
Tetrachloroethene	1.3	190	8.8	1300
o-Xylene	1.3	1.4	5.6	6.0
TNMOC ref. to Heptane (MW=100)	26	1600	100	6500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	112	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809123-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091318a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 09:41 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: CCV

Lab ID#: 1809123-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 11:41 AM**	

Compound	**%Recovery**
Freon 12	112
Vinyl Chloride	102
Freon 11	114
Freon 113	102
1,1-Dichloroethene	100
2-Propanol	96
Carbon Disulfide	97
Methylene Chloride	102
Hexane	100
1,1-Dichloroethane	106
2-Butanone (Methyl Ethyl Ketone)	92
Chloroform	108
1,1,1-Trichloroethane	110
Carbon Tetrachloride	113
Benzene	103
1,2-Dichloroethane	119
Trichloroethene	108
1,4-Dioxane	97
Toluene	102
1,1,2-Trichloroethane	102
Tetrachloroethene	104
o-Xylene	106
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	105	70-130

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Client Sample ID: LCS

Lab ID#: 1809123-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 12:19 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	110	70-130
Vinyl Chloride	103	70-130
Freon 11	110	70-130
Freon 113	100	70-130
1,1-Dichloroethene	98	70-130
2-Propanol	100	70-130
Carbon Disulfide	98	70-130
Methylene Chloride	100	70-130
Hexane	100	70-130
1,1-Dichloroethane	104	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	109	70-130
Carbon Tetrachloride	110	70-130
Benzene	104	70-130
1,2-Dichloroethane	116	70-130
Trichloroethene	111	70-130
1,4-Dioxane	103	70-130
Toluene	103	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	103	70-130
o-Xylene	105	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1809123-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3091304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 12:42 PM**	

Compound	**%Recovery**	**Method Limits**
Freon 12	108	70-130
Vinyl Chloride	104	70-130
Freon 11	108	70-130
Freon 113	98	70-130
1,1-Dichloroethene	97	70-130
2-Propanol	102	70-130
Carbon Disulfide	97	70-130
Methylene Chloride	99	70-130
Hexane	101	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	107	70-130
Carbon Tetrachloride	108	70-130
Benzene	102	70-130
1,2-Dichloroethane	113	70-130
Trichloroethene	108	70-130
1,4-Dioxane	105	70-130
Toluene	101	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	104	70-130
o-Xylene	104	70-130
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	103	70-130

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9/14/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega-OU1 SVE Annual VEW Sampling
Project #:
Workorder #: 1809093

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/7/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1809093

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1 SVE Annual VEW Sampling
DATE RECEIVED:	09/07/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/14/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_DPE-8_090418	TO-15	4.3 "Hg	14.8 psi
02A	OC_SVE_DPE-9_090418	TO-15	4.1 "Hg	14.9 psi
03A	OC_SVE_DPE-5_090418	TO-15	5.1 "Hg	14.7 psi
04A	OC_SVE_VE-14D_090418	TO-15	6.1 "Hg	14.8 psi
05A	OC_SVE_DPE-4_090418	TO-15	5.5 "Hg	14.8 psi
06A	OC_SVE_DPE-3_090418	TO-15	5.5 "Hg	14.9 psi
07A	OC_SVE_VE-15S_090418	TO-15	4.5 "Hg	15.1 psi
08A	OC_SVE_VE-1S_090418	TO-15	3.5 "Hg	14.9 psi
09A	OC_SVE_VE-12S_090418	TO-15	4.3 "Hg	15.2 psi
10A	OC_SVE_VE-10S_090418	TO-15	4.9 "Hg	15.3 psi
11A	OC_SVE_VE-11S_090418	TO-15	3.9 "Hg	14.7 psi
12A	OC_SVE_VE-9S_090418	TO-15	4.9 "Hg	15.3 psi
13A	OC_SVE_VE-8S_090418	TO-15	3.7 "Hg	15.3 psi
14A	OC_SVE_VE-5S_090418	TO-15	5.3 "Hg	14.6 psi
15A	OC_SVE_VE-6S_090418	TO-15	4.7 "Hg	14.8 psi
16A	OC_SVE_VE-14S_090418	TO-15	5.5 "Hg	14.8 psi
17A	OC_SVE_VE-2D_090418	TO-15	5.7 "Hg	14.6 psi
18A	OC_SVE2_VE-39S_090418	TO-15	4.9 "Hg	15.1 psi
19A	OC_SVE2_VE-31S_090418	TO-15	3.9 "Hg	14.7 psi
20A	OC_SVE2_VE-34S_090418	TO-15	4.7 "Hg	15 psi
21A	OC_SVE2_VE-7D_090418	TO-15	5.1 "Hg	15.2 psi
22A	OC_SVE2_VE-10D_090418	TO-15	4.9 "Hg	14.8 psi
23A	OC_SVE2_VE-21S_090418	TO-15	5.5 "Hg	15.2 psi

Continued on next page

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WORK ORDER #: 1809093

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega-OU1 SVE Annual VEW Sampling
DATE RECEIVED:	09/07/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/14/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
24A	OC_SVE2_VE-6D_090418	TO-15	3.1 "Hg	14.8 psi
25A	Lab Blank	TO-15	NA	NA
25B	Lab Blank	TO-15	NA	NA
26A	CCV	TO-15	NA	NA
26B	CCV	TO-15	NA	NA
27A	LCS	TO-15	NA	NA
27AA	LCSD	TO-15	NA	NA
27B	LCS	TO-15	NA	NA
27BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

DATE: 09/14/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1809093

Twenty-four 1 Liter Summa Canister samples were received on September 07, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

A revised Chain of Custody (COC) was provided by the client on 09/11/2018.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Dilution was performed on samples OC_SVE_DPE-3_090418 and OC_SVE_VE-2D_090418 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_DPE-8_090418

Lab ID#: 1809093-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.3	6.6	7.4
Freon 113	1.2	6.2	9.0	47
1,1-Dichloroethene	1.2	5.8	4.6	23
Acetone	12	270	28	640
2-Propanol	4.7	16	12	40
Hexane	1.2	14	4.1	48
2-Butanone (Methyl Ethyl Ketone)	4.7	25	14	73
Benzene	1.2	2.2	3.7	7.0
Trichloroethene	1.2	6.1	6.3	33
Tetrachloroethene	1.2	36	7.9	240
2-Hexanone	4.7	6.7	19	27
m,p-Xylene	1.2	1.4	5.1	6.1
TNMOC ref. to Heptane (MW=100)	23	370	96	1500

Client Sample ID: OC_SVE_DPE-9_090418

Lab ID#: 1809093-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.4	6.5	14
Freon 113	1.2	9.2	8.9	70
1,1-Dichloroethene	1.2	5.3	4.6	21
Acetone	12	25	28	59
Chloroform	1.2	2.3	5.7	11
Trichloroethene	1.2	1.4	6.3	7.5
Tetrachloroethene	1.2	19	7.9	130
m,p-Xylene	1.2	2.2	5.0	9.5
TNMOC ref. to Heptane (MW=100)	23	140	95	570

Client Sample ID: OC_SVE_DPE-5_090418

Lab ID#: 1809093-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	4.9	6.8	28

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_DPE-5_090418

Lab ID#: 1809093-03A

Freon 113	1.2	19	9.2	150
1,1-Dichloroethene	1.2	17	4.8	68
Acetone	12	180	29	440
2-Butanone (Methyl Ethyl Ketone)	4.8	34	14	99
Chloroform	1.2	1.6	5.9	7.8
Trichloroethene	1.2	4.4	6.5	24
Tetrachloroethene	1.2	70	8.2	480
2-Hexanone	4.8	9.2	20	38
m,p-Xylene	1.2	1.9	5.2	8.1
TNMOC ref. to Heptane (MW=100)	24	380	98	1600

Client Sample ID: OC_SVE_VE-14D_090418

Lab ID#: 1809093-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	80	30	190
Hexane	1.3	2.4	4.4	8.4
2-Butanone (Methyl Ethyl Ketone)	5.0	43	15	130
Trichloroethene	1.3	7.6	6.8	41
Tetrachloroethene	1.3	11	8.5	74
2-Hexanone	5.0	6.1	21	25
m,p-Xylene	1.3	2.5	5.5	11
TNMOC ref. to Heptane (MW=100)	25	190	100	780

Client Sample ID: OC_SVE_DPE-4_090418

Lab ID#: 1809093-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.2	1.5	9.4	12
Acetone	12	120	29	300
Hexane	1.2	2.4	4.3	8.4
2-Butanone (Methyl Ethyl Ketone)	4.9	160	14	460
Trichloroethene	1.2	22	6.6	120
Tetrachloroethene	1.2	45	8.3	310

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_DPE-4_090418

Lab ID#: 1809093-05A

2-Hexanone	4.9	21	20	87
m,p-Xylene	1.2	4.7	5.3	20
TNMOC ref. to Heptane (MW=100)	25	3200	100	13000

Client Sample ID: OC_SVE_DPE-3_090418

Lab ID#: 1809093-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	4.1	28	31	210
1,1-Dichloroethene	4.1	9.2	16	37
Acetone	41	110	98	260
2-Butanone (Methyl Ethyl Ketone)	16	55	48	160
1,1,1-Trichloroethane	4.1	85	22	470
Trichloroethene	4.1	21	22	110
Tetrachloroethene	4.1	1200	28	8300
TNMOC ref. to Heptane (MW=100)	82	2400	340	9800

Client Sample ID: OC_SVE_VE-15S_090418

Lab ID#: 1809093-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	5.0	6.7	28
Freon 113	1.2	4.4	9.1	33
Acetone	12	58	28	140
2-Butanone (Methyl Ethyl Ketone)	4.8	54	14	160
Trichloroethene	1.2	4.0	6.4	21
Tetrachloroethene	1.2	19	8.1	130
2-Hexanone	4.8	5.8	19	24
m,p-Xylene	1.2	1.8	5.2	7.9
TNMOC ref. to Heptane (MW=100)	24	180	97	740

Client Sample ID: OC_SVE_VE-1S_090418

Lab ID#: 1809093-08A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VE-1S_090418

Lab ID#: 1809093-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	120	27	280
Hexane	1.1	1.2	4.0	4.3
2-Butanone (Methyl Ethyl Ketone)	4.6	140	13	410
Trichloroethene	1.1	2.5	6.1	13
Tetrachloroethene	1.1	16	7.7	110
2-Hexanone	4.6	14	19	58
m,p-Xylene	1.1	2.8	5.0	12
TNMOC ref. to Heptane (MW=100)	23	1100	93	4500

Client Sample ID: OC_SVE_VE-12S_090418

Lab ID#: 1809093-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	240	28	570
Hexane	1.2	4.5	4.2	16
2-Butanone (Methyl Ethyl Ketone)	4.7	36	14	100
Benzene	1.2	11	3.8	35
Toluene	1.2	2.7	4.5	10
Tetrachloroethene	1.2	4.2	8.0	28
2-Hexanone	4.7	9.1	19	37
m,p-Xylene	1.2	3.2	5.1	14
o-Xylene	1.2	1.2	5.1	5.1
TNMOC ref. to Heptane (MW=100)	24	340	97	1400

Client Sample ID: OC_SVE_VE-10S_090418

Lab ID#: 1809093-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	110	29	250
Hexane	1.2	10	4.3	37
2-Butanone (Methyl Ethyl Ketone)	4.9	61	14	180
Benzene	1.2	20	3.9	64
Toluene	1.2	4.6	4.6	17

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VE-10S_090418

Lab ID#: 1809093-10A

2-Hexanone	4.9	7.9	20	32
m,p-Xylene	1.2	5.2	5.3	22
o-Xylene	1.2	1.7	5.3	7.5
TNMOC ref. to Heptane (MW=100)	24	390	100	1600

Client Sample ID: OC_SVE_VE-11S_090418

Lab ID#: 1809093-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	90	27	210
Hexane	1.2	2.2	4.0	7.7
2-Butanone (Methyl Ethyl Ketone)	4.6	52	14	150
Benzene	1.2	4.5	3.7	14
Tetrachloroethene	1.2	100	7.8	690
2-Hexanone	4.6	6.5	19	27
m,p-Xylene	1.2	2.4	5.0	11
TNMOC ref. to Heptane (MW=100)	23	490	94	2000

Client Sample ID: OC_SVE_VE-9S_090418

Lab ID#: 1809093-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	80	29	190
2-Butanone (Methyl Ethyl Ketone)	4.9	66	14	200
Trichloroethene	1.2	6.2	6.6	33
Tetrachloroethene	1.2	140	8.3	940
2-Hexanone	4.9	6.0	20	25
m,p-Xylene	1.2	1.6	5.3	7.1
TNMOC ref. to Heptane (MW=100)	24	380	100	1600

Client Sample ID: OC_SVE_VE-8S_090418

Lab ID#: 1809093-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VE-8S_090418

Lab ID#: 1809093-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.2	70	8.9	540
Acetone	12	32	28	77
Hexane	1.2	1.9	4.1	6.7
cis-1,2-Dichloroethene	1.2	4.0	4.6	16
1,1,1-Trichloroethane	1.2	63	6.4	340
Benzene	1.2	3.9	3.7	12
Trichloroethene	1.2	7.2	6.3	38
Tetrachloroethene	1.2	430	7.9	2900
m,p-Xylene	1.2	2.1	5.0	9.2
1,1-Difluoroethane	4.7	8.8	12	24
TNMOC ref. to Heptane (MW=100)	23	1000	95	4100

Client Sample ID: OC_SVE_VE-5S_090418

Lab ID#: 1809093-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.2	2.1	9.3	16
Acetone	12	73	29	170
2-Butanone (Methyl Ethyl Ketone)	4.8	38	14	110
Benzene	1.2	1.2	3.9	3.9
Trichloroethene	1.2	3.7	6.5	20
Tetrachloroethene	1.2	82	8.2	550
m,p-Xylene	1.2	1.4	5.2	6.2
TNMOC ref. to Heptane (MW=100)	24	410	99	1700

Client Sample ID: OC_SVE_VE-6S_090418

Lab ID#: 1809093-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	100	28	240
Hexane	1.2	1.3	4.2	4.8
2-Butanone (Methyl Ethyl Ketone)	4.8	52	14	150
Benzene	1.2	1.2	3.8	3.9

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VE-6S_090418

Lab ID#: 1809093-15A

Trichloroethene	1.2	2.8	6.4	15
Tetrachloroethene	1.2	10	8.1	68
2-Hexanone	4.8	6.3	19	26
m,p-Xylene	1.2	2.1	5.2	9.0
TNMOC ref. to Heptane (MW=100)	24	180	97	740

Client Sample ID: OC_SVE_VE-14S_090418

Lab ID#: 1809093-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	2.4	6.9	13
Freon 113	1.2	2.2	9.4	17
Acetone	12	120	29	280
Hexane	1.2	1.7	4.3	6.1
2-Butanone (Methyl Ethyl Ketone)	4.9	140	14	420
Toluene	1.2	6.4	4.6	24
Tetrachloroethene	1.2	6.6	8.3	44
2-Hexanone	4.9	13	20	52
m,p-Xylene	1.2	3.4	5.3	15
TNMOC ref. to Heptane (MW=100)	25	510	100	2100

Client Sample ID: OC_SVE_VE-2D_090418

Lab ID#: 1809093-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	3.5	56	27	420
1,1-Dichloroethene	3.5	5.4	14	21
Acetone	35	56	83	130
2-Butanone (Methyl Ethyl Ketone)	14	48	41	140
1,1,1-Trichloroethane	3.5	56	19	300
Trichloroethene	3.5	18	19	95
Tetrachloroethene	3.5	780	24	5300
TNMOC ref. to Heptane (MW=100)	70	20000	290	82000

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE2_VE-39S_090418

Lab ID#: 1809093-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	24	29	56
Tetrachloroethene	1.2	5.6	8.2	38
TNMOC ref. to Heptane (MW=100)	24	37	99	150

Client Sample ID: OC_SVE2_VE-31S_090418

Lab ID#: 1809093-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	65	27	150
2-Butanone (Methyl Ethyl Ketone)	4.6	29	14	86
Trichloroethene	1.2	1.4	6.2	7.4
Tetrachloroethene	1.2	15	7.8	99
TNMOC ref. to Heptane (MW=100)	23	120	94	490

Client Sample ID: OC_SVE2_VE-34S_090418

Lab ID#: 1809093-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	54	28	130
2-Butanone (Methyl Ethyl Ketone)	4.8	41	14	120
Tetrachloroethene	1.2	9.1	8.1	61
TNMOC ref. to Heptane (MW=100)	24	580	98	2400

Client Sample ID: OC_SVE2_VE-7D_090418

Lab ID#: 1809093-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	12	6.9	70
Freon 113	1.2	62	9.4	480
1,1-Dichloroethene	1.2	10	4.8	42
Acetone	12	65	29	150
2-Butanone (Methyl Ethyl Ketone)	4.9	41	14	120

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE2_VE-7D_090418

Lab ID#: 1809093-21A

Trichloroethene	1.2	17	6.6	94
Tetrachloroethene	1.2	66	8.3	450
2-Hexanone	4.9	7.1	20	29
m,p-Xylene	1.2	2.1	5.3	9.0
TNMOC ref. to Heptane (MW=100)	24	310	100	1300

Client Sample ID: OC_SVE2_VE-10D_090418

Lab ID#: 1809093-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.5	6.7	8.7
Freon 113	1.2	6.1	9.2	46
1,1-Dichloroethene	1.2	5.1	4.8	20
Acetone	12	65	28	160
Hexane	1.2	12	4.2	42
2-Butanone (Methyl Ethyl Ketone)	4.8	35	14	100
Chloroform	1.2	6.0	5.8	29
Benzene	1.2	1.7	3.8	5.4
1,2-Dichloroethane	1.2	1.8	4.8	7.3
Trichloroethene	1.2	4.8	6.4	26
Tetrachloroethene	1.2	55	8.1	370
2-Hexanone	4.8	5.0	20	20
m,p-Xylene	1.2	1.5	5.2	6.7
TNMOC ref. to Heptane (MW=100)	24	290	98	1200

Client Sample ID: OC_SVE2_VE-21S_090418

Lab ID#: 1809093-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	72	30	170
2-Butanone (Methyl Ethyl Ketone)	5.0	100	15	300
Tetrachloroethene	1.2	2.1	8.4	14
2-Hexanone	5.0	12	20	48
m,p-Xylene	1.2	1.8	5.4	7.7

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE2_VE-21S_090418

Lab ID#: 1809093-23A

TNMOC ref. to Heptane (MW=100)	25	190	100	780

Client Sample ID: OC_SVE2_VE-6D_090418

Lab ID#: 1809093-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.1	2.6	8.6	20
1,1-Dichloroethene	1.1	3.0	4.4	12
Acetone	11	56	27	130
2-Butanone (Methyl Ethyl Ketone)	4.5	32	13	94
Chloroform	1.1	1.9	5.5	9.4
Trichloroethene	1.1	2.6	6.0	14
Tetrachloroethene	1.1	24	7.6	160
TNMOC ref. to Heptane (MW=100)	22	130	92	530

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Client Sample ID: OC_SVE_DPE-8_090418

Lab ID#: 1809093-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091216**	**Date of Collection:**	**9/4/18 3:05:00 PM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**9/13/18 08:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	1.3	6.6	7.4
Freon 113	1.2	6.2	9.0	47
1,1-Dichloroethene	1.2	5.8	4.6	23
Acetone	12	270	28	640
2-Propanol	4.7	16	12	40
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	14	4.1	48
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	25	14	73
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	2.2	3.7	7.0
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	6.1	6.3	33
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	36	7.9	240
2-Hexanone	4.7	6.7	19	27
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	1.4	5.1	6.1
o-Xylene	1.2	Not Detected	5.1	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_DPE-8_090418

Lab ID#: 1809093-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091216**	**Date of Collection:**	**9/4/18 3:05:00 PM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**9/13/18 08:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	370	96	1500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_DPE-9_090418

Lab ID#: 1809093-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091217**	**Date of Collection:**	**9/4/18 3:05:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/13/18 09:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	2.4	6.5	14
Freon 113	1.2	9.2	8.9	70
1,1-Dichloroethene	1.2	5.3	4.6	21
Acetone	12	25	28	59
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	2.3	5.7	11
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	1.4	6.3	7.5
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	19	7.9	130
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	2.2	5.0	9.5
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_DPE-9_090418

Lab ID#: 1809093-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091217**	**Date of Collection:**	**9/4/18 3:05:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/13/18 09:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	12	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	140	95	570

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_DPE-5_090418

Lab ID#: 1809093-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091218**	**Date of Collection:**	**9/4/18 3:07:00 PM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**9/13/18 09:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	4.9	6.8	28
Freon 113	1.2	19	9.2	150
1,1-Dichloroethene	1.2	17	4.8	68
Acetone	12	180	29	440
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	34	14	99
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	1.6	5.9	7.8
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	4.4	6.5	24
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	70	8.2	480
2-Hexanone	4.8	9.2	20	38
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.9	5.2	8.1
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_DPE-5_090418

Lab ID#: 1809093-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091218**	**Date of Collection:**	**9/4/18 3:07:00 PM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**9/13/18 09:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	380	98	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VE-14D_090418

Lab ID#: 1809093-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091219**	**Date of Collection:**	**9/4/18 3:07:00 PM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**9/13/18 10:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.2	Not Detected
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Freon 113	1.3	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	80	30	190
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	2.4	4.4	8.4
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	43	15	130
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	7.6	6.8	41
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	11	8.5	74
2-Hexanone	5.0	6.1	21	25
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	2.5	5.5	11
o-Xylene	1.3	Not Detected	5.5	Not Detected

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Client Sample ID: OC_SVE_VE-14D_090418

Lab ID#: 1809093-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091219**	**Date of Collection:**	**9/4/18 3:07:00 PM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**9/13/18 10:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.6	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	190	100	780

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_DPE-4_090418

Lab ID#: 1809093-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091307**	**Date of Collection:**	**9/4/18 3:10:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/13/18 04:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	1.5	9.4	12
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	120	29	300
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	2.4	4.3	8.4
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	160	14	460
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	22	6.6	120
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	45	8.3	310
2-Hexanone	4.9	21	20	87
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	4.7	5.3	20
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_DPE-4_090418

Lab ID#: 1809093-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091307**	**Date of Collection:**	**9/4/18 3:10:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/13/18 04:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	3200	100	13000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_DPE-3_090418

Lab ID#: 1809093-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091318**	**Date of Collection:**	**9/4/18 3:13:00 PM**
Dil. Factor:	**8.22**	**Date of Analysis:**	**9/13/18 11:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.1	Not Detected	20	Not Detected
Freon 114	4.1	Not Detected	29	Not Detected
Chloromethane	41	Not Detected	85	Not Detected
Vinyl Chloride	4.1	Not Detected	10	Not Detected
Bromomethane	41	Not Detected	160	Not Detected
Chloroethane	16	Not Detected	43	Not Detected
Freon 11	4.1	Not Detected	23	Not Detected
Freon 113	4.1	28	31	210
1,1-Dichloroethene	4.1	9.2	16	37
Acetone	41	110	98	260
2-Propanol	16	Not Detected	40	Not Detected
Carbon Disulfide	16	Not Detected	51	Not Detected
3-Chloropropene	16	Not Detected	51	Not Detected
Methylene Chloride	41	Not Detected	140	Not Detected
Methyl tert-butyl ether	16	Not Detected	59	Not Detected
trans-1,2-Dichloroethene	4.1	Not Detected	16	Not Detected
Hexane	4.1	Not Detected	14	Not Detected
1,1-Dichloroethane	4.1	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	16	55	48	160
cis-1,2-Dichloroethene	4.1	Not Detected	16	Not Detected
Chloroform	4.1	Not Detected	20	Not Detected
1,1,1-Trichloroethane	4.1	85	22	470
Carbon Tetrachloride	4.1	Not Detected	26	Not Detected
Benzene	4.1	Not Detected	13	Not Detected
1,2-Dichloroethane	4.1	Not Detected	17	Not Detected
Trichloroethene	4.1	21	22	110
1,2-Dichloropropane	4.1	Not Detected	19	Not Detected
1,4-Dioxane	16	Not Detected	59	Not Detected
Bromodichloromethane	4.1	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.1	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.1	Not Detected	17	Not Detected
Toluene	4.1	Not Detected	15	Not Detected
trans-1,3-Dichloropropene	4.1	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.1	Not Detected	22	Not Detected
Tetrachloroethene	4.1	1200	28	8300
2-Hexanone	16	Not Detected	67	Not Detected
Dibromochloromethane	4.1	Not Detected	35	Not Detected
1,2-Dibromoethane (EDB)	4.1	Not Detected	32	Not Detected
Chlorobenzene	4.1	Not Detected	19	Not Detected
Ethyl Benzene	4.1	Not Detected	18	Not Detected
m,p-Xylene	4.1	Not Detected	18	Not Detected
o-Xylene	4.1	Not Detected	18	Not Detected

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Client Sample ID: OC_SVE_DPE-3_090418

Lab ID#: 1809093-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091318**	**Date of Collection:**	**9/4/18 3:13:00 PM**
Dil. Factor:	**8.22**	**Date of Analysis:**	**9/13/18 11:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	4.1	Not Detected	18	Not Detected
Bromoform	4.1	Not Detected	42	Not Detected
1,1,2,2-Tetrachloroethane	4.1	Not Detected	28	Not Detected
4-Ethyltoluene	4.1	Not Detected	20	Not Detected
1,3,5-Trimethylbenzene	4.1	Not Detected	20	Not Detected
1,2,4-Trimethylbenzene	4.1	Not Detected	20	Not Detected
1,3-Dichlorobenzene	4.1	Not Detected	25	Not Detected
1,4-Dichlorobenzene	4.1	Not Detected	25	Not Detected
alpha-Chlorotoluene	4.1	Not Detected	21	Not Detected
1,2-Dichlorobenzene	4.1	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	16	Not Detected	120	Not Detected
Hexachlorobutadiene	16	Not Detected	180	Not Detected
1,1-Difluoroethane	16	Not Detected	44	Not Detected
Vinyl Acetate	16	Not Detected	58	Not Detected
TNMOC ref. to Heptane (MW=100)	82	2400	340	9800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VE-15S_090418

Lab ID#: 1809093-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091308**	**Date of Collection:**	**9/4/18 3:16:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/13/18 05:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	5.0	6.7	28
Freon 113	1.2	4.4	9.1	33
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	58	28	140
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	54	14	160
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	4.0	6.4	21
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	19	8.1	130
2-Hexanone	4.8	5.8	19	24
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.8	5.2	7.9
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VE-15S_090418

Lab ID#: 1809093-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091308**	**Date of Collection:**	**9/4/18 3:16:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/13/18 05:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	180	97	740

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VE-1S_090418

Lab ID#: 1809093-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091309**	**Date of Collection:**	**9/4/18 3:21:00 PM**
Dil. Factor:	**2.28**	**Date of Analysis:**	**9/13/18 05:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	120	27	280
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	1.2	4.0	4.3
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	140	13	410
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	2.5	6.1	13
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	16	7.7	110
2-Hexanone	4.6	14	19	58
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	2.8	5.0	12
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VE-1S_090418

Lab ID#: 1809093-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091309**	**Date of Collection:**	**9/4/18 3:21:00 PM**
Dil. Factor:	**2.28**	**Date of Analysis:**	**9/13/18 05:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	1100	93	4500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VE-12S_090418

Lab ID#: 1809093-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091310**	**Date of Collection:**	**9/4/18 3:26:00 PM**
Dil. Factor:	**2.37**	**Date of Analysis:**	**9/13/18 06:07 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	240	28	570
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	4.5	4.2	16
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	36	14	100
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	11	3.8	35
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	2.7	4.5	10
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	4.2	8.0	28
2-Hexanone	4.7	9.1	19	37
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	3.2	5.1	14
o-Xylene	1.2	1.2	5.1	5.1

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Client Sample ID: OC_SVE_VE-12S_090418

Lab ID#: 1809093-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091310**	**Date of Collection:**	**9/4/18 3:26:00 PM**
Dil. Factor:	**2.37**	**Date of Analysis:**	**9/13/18 06:07 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	340	97	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VE-10S_090418

Lab ID#: 1809093-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091311**	**Date of Collection:**	**9/4/18 3:25:00 PM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/13/18 06:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.5	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	110	29	250
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	10	4.3	37
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	61	14	180
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	20	3.9	64
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	4.6	4.6	17
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.3	Not Detected
2-Hexanone	4.9	7.9	20	32
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	5.2	5.3	22
o-Xylene	1.2	1.7	5.3	7.5

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Client Sample ID: OC_SVE_VE-10S_090418

Lab ID#: 1809093-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091311**	**Date of Collection:**	**9/4/18 3:25:00 PM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/13/18 06:33 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	390	100	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VE-11S_090418

Lab ID#: 1809093-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091312**	**Date of Collection:**	**9/4/18 3:27:00 PM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/13/18 07:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.0	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	90	27	210
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	2.2	4.0	7.7
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	52	14	150
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
Benzene	1.2	4.5	3.7	14
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	100	7.8	690
2-Hexanone	4.6	6.5	19	27
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.8	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	2.4	5.0	11
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VE-11S_090418

Lab ID#: 1809093-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091312**	**Date of Collection:**	**9/4/18 3:27:00 PM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/13/18 07:00 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	490	94	2000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE_VE-9S_090418

Lab ID#: 1809093-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091313**	**Date of Collection:**	**9/4/18 3:31:00 PM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/13/18 07:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.5	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	80	29	190
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	66	14	200
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	6.2	6.6	33
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	140	8.3	940
2-Hexanone	4.9	6.0	20	25
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	1.6	5.3	7.1
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VE-9S_090418

Lab ID#: 1809093-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091313**	**Date of Collection:**	**9/4/18 3:31:00 PM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/13/18 07:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	380	100	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VE-8S_090418

Lab ID#: 1809093-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091314**	**Date of Collection:**	**9/4/18 3:31:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/13/18 07:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	70	8.9	540
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	32	28	77
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	1.9	4.1	6.7
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	4.0	4.6	16
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	63	6.4	340
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	3.9	3.7	12
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	7.2	6.3	38
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	430	7.9	2900
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	2.1	5.0	9.2
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VE-8S_090418

Lab ID#: 1809093-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091314**	**Date of Collection:**	**9/4/18 3:31:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/13/18 07:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	8.8	12	24
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	1000	95	4100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VE-5S_090418

Lab ID#: 1809093-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091325**	**Date of Collection:**	**9/4/18 3:35:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/14/18 02:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	2.1	9.3	16
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	73	29	170
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	38	14	110
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	1.2	3.9	3.9
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	3.7	6.5	20
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	82	8.2	550
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.4	5.2	6.2
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VE-5S_090418

Lab ID#: 1809093-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091325**	**Date of Collection:**	**9/4/18 3:35:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/14/18 02:17 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	410	99	1700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VE-6S_090418

Lab ID#: 1809093-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091326**	**Date of Collection:**	**9/4/18 3:37:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/14/18 02:43 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	100	28	240
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	1.3	4.2	4.8
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	52	14	150
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	1.2	3.8	3.9
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	2.8	6.4	15
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	10	8.1	68
2-Hexanone	4.8	6.3	19	26
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	2.1	5.2	9.0
o-Xylene	1.2	Not Detected	5.2	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VE-6S_090418

Lab ID#: 1809093-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091326**	**Date of Collection:**	**9/4/18 3:37:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/14/18 02:43 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	180	97	740

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VE-14S_090418

Lab ID#: 1809093-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091319**	**Date of Collection:**	**9/4/18 3:42:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/13/18 11:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	2.4	6.9	13
Freon 113	1.2	2.2	9.4	17
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	120	29	280
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	1.7	4.3	6.1
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	140	14	420
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	6.4	4.6	24
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	6.6	8.3	44
2-Hexanone	4.9	13	20	52
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	3.4	5.3	15
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VE-14S_090418

Lab ID#: 1809093-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091319**	**Date of Collection:**	**9/4/18 3:42:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/13/18 11:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	510	100	2100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VE-2D_090418

Lab ID#: 1809093-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091328**	**Date of Collection:**	**9/4/18 3:45:00 PM**
Dil. Factor:	**7.03**	**Date of Analysis:**	**9/14/18 03:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.5	Not Detected	17	Not Detected
Freon 114	3.5	Not Detected	24	Not Detected
Chloromethane	35	Not Detected	72	Not Detected
Vinyl Chloride	3.5	Not Detected	9.0	Not Detected
Bromomethane	35	Not Detected	140	Not Detected
Chloroethane	14	Not Detected	37	Not Detected
Freon 11	3.5	Not Detected	20	Not Detected
Freon 113	3.5	56	27	420
1,1-Dichloroethene	3.5	5.4	14	21
Acetone	35	56	83	130
2-Propanol	14	Not Detected	34	Not Detected
Carbon Disulfide	14	Not Detected	44	Not Detected
3-Chloropropene	14	Not Detected	44	Not Detected
Methylene Chloride	35	Not Detected	120	Not Detected
Methyl tert-butyl ether	14	Not Detected	51	Not Detected
trans-1,2-Dichloroethene	3.5	Not Detected	14	Not Detected
Hexane	3.5	Not Detected	12	Not Detected
1,1-Dichloroethane	3.5	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	48	41	140
cis-1,2-Dichloroethene	3.5	Not Detected	14	Not Detected
Chloroform	3.5	Not Detected	17	Not Detected
1,1,1-Trichloroethane	3.5	56	19	300
Carbon Tetrachloride	3.5	Not Detected	22	Not Detected
Benzene	3.5	Not Detected	11	Not Detected
1,2-Dichloroethane	3.5	Not Detected	14	Not Detected
Trichloroethene	3.5	18	19	95
1,2-Dichloropropane	3.5	Not Detected	16	Not Detected
1,4-Dioxane	14	Not Detected	51	Not Detected
Bromodichloromethane	3.5	Not Detected	24	Not Detected
cis-1,3-Dichloropropene	3.5	Not Detected	16	Not Detected
4-Methyl-2-pentanone	3.5	Not Detected	14	Not Detected
Toluene	3.5	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.5	Not Detected	16	Not Detected
1,1,2-Trichloroethane	3.5	Not Detected	19	Not Detected
Tetrachloroethene	3.5	780	24	5300
2-Hexanone	14	Not Detected	58	Not Detected
Dibromochloromethane	3.5	Not Detected	30	Not Detected
1,2-Dibromoethane (EDB)	3.5	Not Detected	27	Not Detected
Chlorobenzene	3.5	Not Detected	16	Not Detected
Ethyl Benzene	3.5	Not Detected	15	Not Detected
m,p-Xylene	3.5	Not Detected	15	Not Detected
o-Xylene	3.5	Not Detected	15	Not Detected

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Client Sample ID: OC_SVE_VE-2D_090418

Lab ID#: 1809093-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091328**	**Date of Collection:**	**9/4/18 3:45:00 PM**
Dil. Factor:	**7.03**	**Date of Analysis:**	**9/14/18 03:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	3.5	Not Detected	15	Not Detected
Bromoform	3.5	Not Detected	36	Not Detected
1,1,2,2-Tetrachloroethane	3.5	Not Detected	24	Not Detected
4-Ethyltoluene	3.5	Not Detected	17	Not Detected
1,3,5-Trimethylbenzene	3.5	Not Detected	17	Not Detected
1,2,4-Trimethylbenzene	3.5	Not Detected	17	Not Detected
1,3-Dichlorobenzene	3.5	Not Detected	21	Not Detected
1,4-Dichlorobenzene	3.5	Not Detected	21	Not Detected
alpha-Chlorotoluene	3.5	Not Detected	18	Not Detected
1,2-Dichlorobenzene	3.5	Not Detected	21	Not Detected
1,2,4-Trichlorobenzene	14	Not Detected	100	Not Detected
Hexachlorobutadiene	14	Not Detected	150	Not Detected
1,1-Difluoroethane	14	Not Detected	38	Not Detected
Vinyl Acetate	14	Not Detected	50	Not Detected
TNMOC ref. to Heptane (MW=100)	70	20000	290	82000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE2_VE-39S_090418

Lab ID#: 1809093-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091320**	**Date of Collection:**	**9/4/18 4:56:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/14/18 12:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	24	29	56
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	5.6	8.2	38
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE2_VE-39S_090418

Lab ID#: 1809093-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091320**	**Date of Collection:**	**9/4/18 4:56:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/14/18 12:05 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	37	99	150

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE2_VE-31S_090418

Lab ID#: 1809093-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091332**	**Date of Collection:**	**9/4/18 5:13:00 PM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/14/18 09:15 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.0	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	65	27	150
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	29	14	86
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	1.4	6.2	7.4
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	15	7.8	99
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.8	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE2_VE-31S_090418

Lab ID#: 1809093-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091332**	**Date of Collection:**	**9/4/18 5:13:00 PM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/14/18 09:15 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	120	94	490

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE2_VE-34S_090418

Lab ID#: 1809093-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091321**	**Date of Collection:**	**9/4/18 4:56:00 PM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/14/18 12:32 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	54	28	130
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	41	14	120
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	9.1	8.1	61
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE2_VE-34S_090418

Lab ID#: 1809093-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091321**	**Date of Collection:**	**9/4/18 4:56:00 PM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/14/18 12:32 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	580	98	2400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: OC_SVE2_VE-7D_090418

Lab ID#: 1809093-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091322**	**Date of Collection:**	**9/4/18 4:59:00 PM**
Dil. Factor:	**2.45**	**Date of Analysis:**	**9/14/18 12:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	12	6.9	70
Freon 113	1.2	62	9.4	480
1,1-Dichloroethene	1.2	10	4.8	42
Acetone	12	65	29	150
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	41	14	120
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	17	6.6	94
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	66	8.3	450
2-Hexanone	4.9	7.1	20	29
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	2.1	5.3	9.0
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE2_VE-7D_090418

Lab ID#: 1809093-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091322**	**Date of Collection:**	**9/4/18 4:59:00 PM**
Dil. Factor:	**2.45**	**Date of Analysis:**	**9/14/18 12:58 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	310	100	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE2_VE-10D_090418

Lab ID#: 1809093-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091323**	**Date of Collection:**	**9/4/18 5:01:00 PM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/14/18 01:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	1.5	6.7	8.7
Freon 113	1.2	6.1	9.2	46
1,1-Dichloroethene	1.2	5.1	4.8	20
Acetone	12	65	28	160
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	12	4.2	42
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	35	14	100
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	6.0	5.8	29
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	1.7	3.8	5.4
1,2-Dichloroethane	1.2	1.8	4.8	7.3
Trichloroethene	1.2	4.8	6.4	26
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	55	8.1	370
2-Hexanone	4.8	5.0	20	20
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.5	5.2	6.7
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE2_VE-10D_090418

Lab ID#: 1809093-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091323**	**Date of Collection:**	**9/4/18 5:01:00 PM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/14/18 01:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	290	98	1200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE2_VE-21S_090418

Lab ID#: 1809093-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091327**	**Date of Collection:**	**9/4/18 5:07:00 PM**
Dil. Factor:	**2.49**	**Date of Analysis:**	**9/14/18 03:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	72	30	170
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	100	15	300
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	2.1	8.4	14
2-Hexanone	5.0	12	20	48
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	1.8	5.4	7.7
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE2_VE-21S_090418

Lab ID#: 1809093-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091327**	**Date of Collection:**	**9/4/18 5:07:00 PM**
Dil. Factor:	**2.49**	**Date of Analysis:**	**9/14/18 03:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
1,1-Difluoroethane	5.0	Not Detected	13	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	190	100	780

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE2_VE-6D_090418

Lab ID#: 1809093-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091324**	**Date of Collection:**	**9/4/18 5:10:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**9/14/18 01:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	43	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Freon 113	1.1	2.6	8.6	20
1,1-Dichloroethene	1.1	3.0	4.4	12
Acetone	11	56	27	130
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	32	13	94
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	1.9	5.5	9.4
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	2.6	6.0	14
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	24	7.6	160
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

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Client Sample ID: OC_SVE2_VE-6D_090418

Lab ID#: 1809093-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091324**	**Date of Collection:**	**9/4/18 5:10:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**9/14/18 01:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	22	130	92	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809093-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091206a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809093-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091206a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 04:54 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809093-25B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091306a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 02:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809093-25B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091306a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 02:57 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: CCV

Lab ID#: 1809093-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091202**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 01:50 PM**

Compound	%Recovery
Freon 12	107
Freon 114	100
Chloromethane	105
Vinyl Chloride	115
Bromomethane	106
Chloroethane	117
Freon 11	103
Freon 113	100
1,1-Dichloroethene	107
Acetone	118
2-Propanol	109
Carbon Disulfide	107
3-Chloropropene	110
Methylene Chloride	113
Methyl tert-butyl ether	106
trans-1,2-Dichloroethene	111
Hexane	114
1,1-Dichloroethane	112
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	108
Chloroform	107
1,1,1-Trichloroethane	101
Carbon Tetrachloride	100
Benzene	108
1,2-Dichloroethane	115
Trichloroethene	108
1,2-Dichloropropane	104
1,4-Dioxane	101
Bromodichloromethane	108
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	103
Toluene	99
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	103
Tetrachloroethene	101
2-Hexanone	95
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	106
Chlorobenzene	99
Ethyl Benzene	100
m,p-Xylene	101
o-Xylene	104

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Client Sample ID: CCV

Lab ID#: 1809093-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 01:50 PM**	

Compound	**%Recovery**
Styrene	90
Bromoform	105
1,1,2,2-Tetrachloroethane	98
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	80
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	101
1,1-Difluoroethane	90
Vinyl Acetate	102
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: CCV

Lab ID#: 1809093-26B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091302**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 12:43 PM**

Compound	%Recovery
Freon 12	106
Freon 114	102
Chloromethane	105
Vinyl Chloride	115
Bromomethane	106
Chloroethane	115
Freon 11	102
Freon 113	98
1,1-Dichloroethene	108
Acetone	122
2-Propanol	111
Carbon Disulfide	109
3-Chloropropene	109
Methylene Chloride	114
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	108
Hexane	114
1,1-Dichloroethane	113
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	110
Chloroform	107
1,1,1-Trichloroethane	101
Carbon Tetrachloride	98
Benzene	107
1,2-Dichloroethane	110
Trichloroethene	107
1,2-Dichloropropane	105
1,4-Dioxane	99
Bromodichloromethane	106
cis-1,3-Dichloropropene	109
4-Methyl-2-pentanone	101
Toluene	98
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	106
Tetrachloroethene	102
2-Hexanone	96
Dibromochloromethane	107
1,2-Dibromoethane (EDB)	106
Chlorobenzene	100
Ethyl Benzene	102
m,p-Xylene	104
o-Xylene	106

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Client Sample ID: CCV

Lab ID#: 1809093-26B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 12:43 PM**	

Compound	**%Recovery**
Styrene	90
Bromoform	107
1,1,2,2-Tetrachloroethane	98
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	82
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	105
Hexachlorobutadiene	104
1,1-Difluoroethane	94
Vinyl Acetate	104
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1809093-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 02:17 PM**	

Compound	%Recovery	Method Limits
Freon 12	112	70-130
Freon 114	107	70-130
Chloromethane	112	70-130
Vinyl Chloride	121	70-130
Bromomethane	114	70-130
Chloroethane	125	70-130
Freon 11	107	70-130
Freon 113	104	70-130
1,1-Dichloroethene	114	70-130
Acetone	123	70-130
2-Propanol	118	70-130
Carbon Disulfide	119	70-130
3-Chloropropene	121	70-130
Methylene Chloride	120	70-130
Methyl tert-butyl ether	112	70-130
trans-1,2-Dichloroethene	127	70-130
Hexane	119	70-130
1,1-Dichloroethane	117	70-130
2-Butanone (Methyl Ethyl Ketone)	117	70-130
cis-1,2-Dichloroethene	107	70-130
Chloroform	114	70-130
1,1,1-Trichloroethane	106	70-130
Carbon Tetrachloride	107	70-130
Benzene	107	70-130
1,2-Dichloroethane	111	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	117	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	104	70-130
2-Hexanone	105	70-130
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	104	70-130
o-Xylene	106	70-130

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Client Sample ID: LCS

Lab ID#: 1809093-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 02:17 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	98	70-130
Bromoform	110	70-130
1,1,2,2-Tetrachloroethane	100	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	112	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	101	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	120	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 1809093-27AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 02:43 PM**	

Compound	%Recovery	Method Limits
Freon 12	111	70-130
Freon 114	106	70-130
Chloromethane	111	70-130
Vinyl Chloride	118	70-130
Bromomethane	112	70-130
Chloroethane	125	70-130
Freon 11	107	70-130
Freon 113	101	70-130
1,1-Dichloroethene	110	70-130
Acetone	119	70-130
2-Propanol	117	70-130
Carbon Disulfide	114	70-130
3-Chloropropene	121	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	111	70-130
trans-1,2-Dichloroethene	124	70-130
Hexane	118	70-130
1,1-Dichloroethane	116	70-130
2-Butanone (Methyl Ethyl Ketone)	118	70-130
cis-1,2-Dichloroethene	104	70-130
Chloroform	111	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	106	70-130
Benzene	109	70-130
1,2-Dichloroethane	112	70-130
Trichloroethene	110	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	118	70-130
4-Methyl-2-pentanone	109	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	102	70-130
2-Hexanone	106	70-130
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	104	70-130
o-Xylene	107	70-130

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Client Sample ID: LCSD

Lab ID#: 1809093-27AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/12/18 02:43 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	97	70-130
Bromoform	112	70-130
1,1,2,2-Tetrachloroethane	99	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	103	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	119	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCS

Lab ID#: 1809093-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 01:10 PM**	

Compound	%Recovery	Method Limits
Freon 12	111	70-130
Freon 114	107	70-130
Chloromethane	112	70-130
Vinyl Chloride	121	70-130
Bromomethane	112	70-130
Chloroethane	128	70-130
Freon 11	107	70-130
Freon 113	103	70-130
1,1-Dichloroethene	112	70-130
Acetone	117	70-130
2-Propanol	115	70-130
Carbon Disulfide	116	70-130
3-Chloropropene	122	70-130
Methylene Chloride	119	70-130
Methyl tert-butyl ether	112	70-130
trans-1,2-Dichloroethene	126	70-130
Hexane	119	70-130
1,1-Dichloroethane	117	70-130
2-Butanone (Methyl Ethyl Ketone)	120	70-130
cis-1,2-Dichloroethene	105	70-130
Chloroform	112	70-130
1,1,1-Trichloroethane	104	70-130
Carbon Tetrachloride	105	70-130
Benzene	107	70-130
1,2-Dichloroethane	111	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	101	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	116	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	102	70-130
2-Hexanone	104	70-130
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	103	70-130
o-Xylene	107	70-130

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Client Sample ID: LCS

Lab ID#: 1809093-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 01:10 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	96	70-130
Bromoform	110	70-130
1,1,2,2-Tetrachloroethane	99	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	110	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	103	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	121	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: LCSD

Lab ID#: 1809093-27BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 01:36 PM**	

Compound	%Recovery	Method Limits
Freon 12	112	70-130
Freon 114	109	70-130
Chloromethane	113	70-130
Vinyl Chloride	123	70-130
Bromomethane	115	70-130
Chloroethane	126	70-130
Freon 11	108	70-130
Freon 113	105	70-130
1,1-Dichloroethene	115	70-130
Acetone	120	70-130
2-Propanol	120	70-130
Carbon Disulfide	118	70-130
3-Chloropropene	122	70-130
Methylene Chloride	120	70-130
Methyl tert-butyl ether	113	70-130
trans-1,2-Dichloroethene	128	70-130
Hexane	122	70-130
1,1-Dichloroethane	118	70-130
2-Butanone (Methyl Ethyl Ketone)	118	70-130
cis-1,2-Dichloroethene	107	70-130
Chloroform	115	70-130
1,1,1-Trichloroethane	107	70-130
Carbon Tetrachloride	108	70-130
Benzene	107	70-130
1,2-Dichloroethane	112	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	115	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	103	70-130
2-Hexanone	106	70-130
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	104	70-130
o-Xylene	108	70-130

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Client Sample ID: LCSD

Lab ID#: 1809093-27BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a091304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/13/18 01:36 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	98	70-130
Bromoform	113	70-130
1,1,2,2-Tetrachloroethane	101	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	105	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	106	70-130
Hexachlorobutadiene	105	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	123	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	104	70-130

AIR CHAIN OF CUSTODY RECORD

DATE: 09/04/18

PAGE: 2 OF 2

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Annual VEW Sampling
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S) (NAME / SIGNATURE): Khalid Asker

PO NO:
LAB CONTACT OR QUOTE NO:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☒ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: TO-15 (TAL 2.4)

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (" Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (" Hg)	TO-15 (TAL 2.4)
17	OC_SVE_VE-2D_090418		SV	1L3152	1L	23783	9/4/2018	1539	-30	9/4/2018	1545	-5	X
18	OC_SVE2_VE-39S_090418		SV	1L2951	1L	23337	9/4/218	1646	-30	9/4/2018	1656	-5	X
19	OC_SVE2_VE-31S_090418		SV	1L2659	1L	23189	9/4/218	1707	-30	9/4/2018	1713	-5	X
20	OC_SVE2_VE-34S_090418		SV	1L2381	1L	23587	9/4/218	1649	-28	9/4/2018	1656	-5	X
21	OC_SVE2_VE-7D_090418		SV	1L1760	1L	23106	9/4/218	1651	-30	9/4/2018	1659	-5	X
22	OC_SVE2_VE-10D_090418		SV	1L2597	1L	23485	9/4/218	1654	-28	9/4/2018	1701	-5	X
23	OC_SVE2_VE-21S_090418		SV	1L3024	1L	23407	9/4/218	1700	-30	9/4/2018	1707	-5	X
24	OC_SVE2_VE-6D_090418		SV	1L2605	1L	24324	9/4/218	1704	-29	9/4/2018	1710	-4	X

Relinquished by: (Signature) | Received by: (Signature) | Date: | Time:

Relinquished by: (Signature) | Received by: (Signature) | Date: | Time:

Relinquished by: (Signature) | Received by: (Signature) | Date: | Time:

Revised COC per Client 09/11/18 as

1809093

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/04/18
PAGE: 1 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Annual VEW Sampling
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: TO-15 (TAL 2.4)

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)
01A	1	OC_SVE_DPE-8_090418		SV	1L2669	1 L	23736	9/4/2018	1456	-30	9/4/2018	1505	-5	X
02A	2	OC_SVE_DPE-9_090418		SV	1L1848	1 L	23521	9/4/2018	1458	-30	9/4/2018	1505	-4	X
03A	3	OC_SVE_DPE-5_090418		SV	3043	1 L	24281	9/4/2018	1500	-28	9/4/2018	1507	-5	X
04A	4	OC_SVE_VE-14D_090418		SV	1L3168	1 L	23772	9/4/2018	1502	-28	9/4/2018	1507	-5	X
05A	5	OC_SVE_DPE-4_090418		SV	1L2807	1 L	23776	9/4/2018	1503	-29	9/4/2018	1510	-5	X
06A	6	OC_SVE_DPE-3_090418		SV	1L3146	1 L	23241	9/4/2018	1505	-30	9/4/2018	1513	-5	X
07A	7	OC_SVE_VE-15S_090418		SV	1L2826	1 L	23313	9/4/2018	1510	-30	9/4/2018	1516	-4.5	X
08A	8	OC_SVE_VE-1S_090418		SV	1L1621	1 L	23692	9/4/2018	1514	-28	9/4/2018	1521	-4	X
09A	9	OC_SVE_VE-12S_090418		SV	1L3174	1 L	23393	9/4/2018	1516	-30	9/4/2018	1526	5.5	X
10A	10	OC_SVE_VE-10S_090418		SV	1L3001	1 L	23608	9/4/2018	1318	-28	9/4/2018	1525	-5	X
11A	11	OC_SVE_VE-11S_090418		SV	1L3097	1 L	23708	9/4/2018	1520	-30	9/4/2018	1527	-4	X
12A	12	OC_SVE_VE-9S_090418		SV	1L2529	1 L	23623	9/4/2018	1524	-27	9/4/2018	1531	-5	X
13A	13	OC_SVE_VE-8S_090418		SV	1L1606	1 L	23455	9/4/2018	1525	-30	9/4/2018	1531	-4	X
14A	14	OC_SVE_VE-5S_090418		SV	1L2694	1 L	23787	9/4/2018	1530	-30	9/4/2018	1535	-5	X
15A	15	OC_SVE_VE-8S_090418		SV	1L3150	1 L	23164	9/4/2018	1532	-30	9/4/2018	1537	-5	X
16A	16	OC_SVE_VE-14S_090418		SV	1L3131	1 L	23263	9/4/2018	1537	-27	9/4/2018	1542	-4	X

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Date: Time:

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Received by: (Signature)
Date: Time:

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~~Custody Seal Intact~~
Y N None Temp NA

1809093

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/04/18
PAGE: 2 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Annual VEW Sampling
PROJECT ADDRESS: 12520 Whittier Blvd.
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P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)
17A	17	OC_SVE_VE-2D_090418		SV	1L3152	1 L	23783	9/4/2018	1539	-30	9/4/2018	1545	-5	X
18A	18	OC_SVE2_VE-39S_090418		SV	1L2951	1 L	23337	9/4/218	1646	-30	9/4/2018	1656	-5	X
19A	19	OC_SVE2_VE-31S_090418		SV	1L2659	1 L	23189	9/4/218	1707	-30	9/4/2018	1713	-5	X
20A	20	OC_SVE2_VE-34S_090418		SV	1L2238	1 L	23587	9/4/218	1649	-28	9/4/2018	1656	-5	X
21A	21	OC_SVE2_VE-7D_090418		SV	1L1760	1 L	23106	9/4/218	1651	-30	9/4/2018	1659	-5	X
22A	22	OC_SVE2_VE-10D_090418		SV	1L2597	1 L	23485	9/4/218	1654	-28	9/4/2018	1701	-5	X
23A	23	OC_SVE2_VE-21S_090418		SV	1L3024	1 L	23407	9/4/218	1700	-30	9/4/2018	1707	-5	X
24A	24	OC_SVE2_VE-6D_090418		SV	1L2605	1 L	24324	9/4/218	1704	-29	9/4/2018	1710	-4	X

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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Custody Seal Intact?

Y N None Temp NA

1809093

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/04/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - OU1 SVE Monthly GAC Sampling
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☑ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES: TO-15 (TAL 2.3)

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	TO-15 (TAL 2.3)
01A 1	OC_SVE_EFF_GAC_090418	SP-EFF-GAC	SV	1L2753	1 L	23731	9/4/2018	1313	-29	9/4/2018	1318	-5	X
02A 2	OC_SVE_MID_GAC_090418	SP-MID-GAC	SV	1L2780	1 L	23193	9/4/2018	1315	-30	9/4/2018	1320	-5	X
03A 3	OC_SVE_INF_GAC_090418	SP-INF-GAC	SV	1L2510	1 L	23826	9/4/2018	1316	-29	9/4/2018	1321	-5	X
4													
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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time: 0120 09/10/18
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Custody Seal Intact?
Y N None Temp NA
Fed Ex

1809123

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9/27/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - Semi-Annual VMP September 2018
Project #:
Workorder #: 1809378

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/20/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1809378

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Semi-Annual VMP September 2018
DATE RECEIVED:	09/20/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/27/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_VMP-40-24_091718	TO-15	5.5 "Hg	14.8 psi
02A	OC_SVE_VMP-40-12_091718	TO-15	6.1 "Hg	14.7 psi
03A	OC_SVE_VMP-25_091718	TO-15	5.5 "Hg	14.8 psi
04A	OC_SVE_VMP-41-55_091718	TO-15	3.7 "Hg	14.8 psi
05A	OC_SVE_VMP-40-55_091718	TO-15	5.5 "Hg	15.1 psi
06A	OC_SVE_VMP-23_091718	TO-15	5.5 "Hg	15.1 psi
07A	OC_SVE_VMP-40-6_091718	TO-15	5.5 "Hg	14.7 psi
08A	OC_SVE_VMP-41-6_091718	TO-15	5.9 "Hg	14.9 psi
09A	OC_SVE_VMP-41-24_091718	TO-15	4.5 "Hg	14.8 psi
10A	OC_SVE_VMP-39-24_091718	TO-15	3.5 "Hg	14.8 psi
11A	OC_SVE_VMP-84-12_091718	TO-15	4.7 "Hg	15.1 psi
12A	OC_SVE_VMP-39-12_091718	TO-15	3.3 "Hg	14.8 psi
13A	OC_SVE_VMP-41-12_091718	TO-15	3.3 "Hg	15.3 psi
14A	OC_SVE_VMP-39-6_091718	TO-15	2.4 "Hg	14.9 psi
15A	OC_SVE_VMP-84-6_091718	TO-15	3.9 "Hg	15.1 psi
16A	OC_SVE_VMP-84-60_091718	TO-15	3.5 "Hg	15 psi
17A	OC_SVE_VMP-39-55_091718	TO-15	4.3 "Hg	14.8 psi
18A	OC_SVE_VMP-84-50_091718	TO-15	3.3 "Hg	15.2 psi
19A	OC_SVE_VMP-84-40_091718	TO-15	4.3 "Hg	15.2 psi
20A	OC_SVE_VMP-84-24_091718	TO-15	4.5 "Hg	15.1 psi
21A	Lab Blank	TO-15	NA	NA
21B	Lab Blank	TO-15	NA	NA
22A	CCV	TO-15	NA	NA

Continued on next page

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WORK ORDER #: 1809378

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Semi-Annual VMP September 2018
DATE RECEIVED:	09/20/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/27/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
22B	CCV	TO-15	NA	NA
23A	LCS	TO-15	NA	NA
23AA	LCSD	TO-15	NA	NA
23B	LCS	TO-15	NA	NA
23BB	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

DATE: 09/27/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1809378

Twenty 1 Liter Summa Canister samples were received on September 20, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

A revised Chain of Custody (COC) was provided by the client on 9/25/2018.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of Heptane.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds. Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Dilution was performed on sample OC_SVE_VMP-39-55_091718 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.
M - Reported value may be biased due to apparent matrix interferences.
CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-40-24_091718

Lab ID#: 1809378-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	110	29	260
2-Butanone (Methyl Ethyl Ketone)	4.9	200	14	590
Trichloroethene	1.2	1.8	6.6	9.8
Tetrachloroethene	1.2	24	8.3	160
2-Hexanone	4.9	6.4	20	26
TNMOC ref. to Heptane (MW=100)	25	220	100	900

Client Sample ID: OC_SVE_VMP-40-12_091718

Lab ID#: 1809378-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	170	30	400
2-Butanone (Methyl Ethyl Ketone)	5.0	290	15	860
Trichloroethene	1.2	1.8	6.7	9.8
Tetrachloroethene	1.2	32	8.5	220
2-Hexanone	5.0	9.4	20	38
TNMOC ref. to Heptane (MW=100)	25	320	100	1300

Client Sample ID: OC_SVE_VMP-25_091718

Lab ID#: 1809378-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	400	29	950
Carbon Disulfide	4.9	12	15	38
2-Butanone (Methyl Ethyl Ketone)	4.9	1800 E	14	5200 E
Tetrachloroethene	1.2	21	8.3	140
TNMOC ref. to Heptane (MW=100)	25	1700	100	7000

Client Sample ID: OC_SVE_VMP-41-55_091718

Lab ID#: 1809378-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-41-55_091718

Lab ID#: 1809378-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.9	6.4	11
Freon 113	1.1	2.7	8.8	21
Acetone	11	59	27	140
Carbon Disulfide	4.6	14	14	44
2-Butanone (Methyl Ethyl Ketone)	4.6	100	14	300
Tetrachloroethene	1.1	12	7.8	81
TNMOC ref. to Heptane (MW=100)	23	110	94	450

Client Sample ID: OC_SVE_VMP-40-55_091718

Lab ID#: 1809378-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloromethane	12	29	26	60
Vinyl Chloride	1.2	1.6	3.2	4.1
Acetone	12	130	29	300
Carbon Disulfide	5.0	220	15	670
2-Butanone (Methyl Ethyl Ketone)	5.0	220	15	630
Trichloroethene	1.2	2.1	6.7	11
Tetrachloroethene	1.2	24	8.4	170
2-Hexanone	5.0	6.0	20	24
TNMOC ref. to Heptane (MW=100)	25	330	100	1300

Client Sample ID: OC_SVE_VMP-23_091718

Lab ID#: 1809378-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	120	29	280
2-Butanone (Methyl Ethyl Ketone)	5.0	210	15	620
Trichloroethene	1.2	1.7	6.7	9.1
Tetrachloroethene	1.2	50	8.4	340
2-Hexanone	5.0	6.1	20	25
TNMOC ref. to Heptane (MW=100)	25	230	100	940

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-40-6_091718

Lab ID#: 1809378-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	140	29	330
2-Butanone (Methyl Ethyl Ketone)	4.9	290	14	860
cis-1,2-Dichloroethene	1.2	1.7	4.8	6.7
Trichloroethene	1.2	4.6	6.6	25
Tetrachloroethene	1.2	38	8.3	260
2-Hexanone	4.9	10	20	43
TNMOC ref. to Heptane (MW=100)	24	340	100	1400

Client Sample ID: OC_SVE_VMP-41-6_091718

Lab ID#: 1809378-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	79	30	190
Hexane	1.2	32	4.4	110
2-Butanone (Methyl Ethyl Ketone)	5.0	140	15	400
Benzene	1.2	4.2	4.0	14
Tetrachloroethene	1.2	19	8.5	130
TNMOC ref. to Heptane (MW=100)	25	360	100	1500

Client Sample ID: OC_SVE_VMP-41-24_091718

Lab ID#: 1809378-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	88	28	210
Hexane	1.2	1.2	4.2	4.4
2-Butanone (Methyl Ethyl Ketone)	4.7	110	14	310
Tetrachloroethene	1.2	12	8.0	82
2-Hexanone	4.7	4.7	19	19
TNMOC ref. to Heptane (MW=100)	24	170	96	700

Client Sample ID: OC_SVE_VMP-39-24_091718

Lab ID#: 1809378-10A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-39-24_091718

Lab ID#: 1809378-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	24	27	58
2-Propanol	4.5	16	11	39
2-Butanone (Methyl Ethyl Ketone)	4.5	7.0	13	20
Trichloroethene	1.1	1.1	6.1	6.2
Toluene	1.1	1.5	4.3	5.5
Tetrachloroethene	1.1	26	7.7	180
1,1-Difluoroethane	4.5	81	12	220
TNMOC ref. to Heptane (MW=100)	23	85	93	350

Client Sample ID: OC_SVE_VMP-84-12_091718

Lab ID#: 1809378-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	40	6.7	220
Freon 113	1.2	60	9.2	460
Acetone	12	17	28	41
2-Butanone (Methyl Ethyl Ketone)	4.8	12	14	37
Trichloroethene	1.2	24	6.4	130
Tetrachloroethene	1.2	130	8.1	860
TNMOC ref. to Heptane (MW=100)	24	350	98	1400

Client Sample ID: OC_SVE_VMP-39-12_091718

Lab ID#: 1809378-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	3.0	6.3	17
Freon 113	1.1	3.9	8.6	30
1,1-Dichloroethene	1.1	1.4	4.5	5.6
Acetone	11	22	27	52
2-Butanone (Methyl Ethyl Ketone)	4.5	5.6	13	16
Trichloroethene	1.1	3.7	6.0	20
Toluene	1.1	1.7	4.2	6.6
Tetrachloroethene	1.1	65	7.6	440

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-39-12_091718

Lab ID#: 1809378-12A

m,p-Xylene	1.1	1.3	4.9	5.8
1,1-Difluoroethane	4.5	250	12	680
TNMOC ref. to Heptane (MW=100)	22	170	92	700

Client Sample ID: OC_SVE_VMP-41-12_091718

Lab ID#: 1809378-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	85	27	200
2-Butanone (Methyl Ethyl Ketone)	4.6	140	14	410
Tetrachloroethene	1.1	16	7.8	110
2-Hexanone	4.6	4.6	19	19
TNMOC ref. to Heptane (MW=100)	23	150	94	610

Client Sample ID: OC_SVE_VMP-39-6_091718

Lab ID#: 1809378-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	26	6.2	140
Freon 113	1.1	39	8.4	300
1,1-Dichloroethene	1.1	14	4.3	54
Acetone	11	27	26	65
2-Butanone (Methyl Ethyl Ketone)	4.4	7.6	13	22
Benzene	1.1	1.3	3.5	4.2
Trichloroethene	1.1	39	5.9	210
Tetrachloroethene	1.1	430	7.4	2900
1,1-Difluoroethane	4.4	81	12	220
TNMOC ref. to Heptane (MW=100)	22	1000	90	4100

Client Sample ID: OC_SVE_VMP-84-6_091718

Lab ID#: 1809378-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	55	6.5	310

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-84-6_091718

Lab ID#: 1809378-15A

Freon 113	1.2	79	8.9	610
Acetone	12	15	28	35
2-Butanone (Methyl Ethyl Ketone)	4.7	7.8	14	23
Trichloroethene	1.2	93	6.3	500
Tetrachloroethene	1.2	210	7.9	1400
TNMOC ref. to Heptane (MW=100)	23	620	95	2500

Client Sample ID: OC_SVE_VMP-84-60_091718

Lab ID#: 1809378-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	49	6.4	280
Freon 113	1.1	31	8.8	240
1,1-Dichloroethene	1.1	4.2	4.5	17
Acetone	11	24	27	56
2-Butanone (Methyl Ethyl Ketone)	4.6	28	14	83
Trichloroethene	1.1	7.7	6.2	42
Tetrachloroethene	1.1	61	7.8	410
1,1-Difluoroethane	4.6	23	12	61
TNMOC ref. to Heptane (MW=100)	23	330	94	1300

Client Sample ID: OC_SVE_VMP-39-55_091718

Lab ID#: 1809378-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	23	27	130	150
Freon 113	23	37	180	280
1,1-Dichloroethene	23	75	93	300
Trichloroethene	23	210	120	1100
Tetrachloroethene	23	580	160	3900
1,1-Difluoroethane	94	140000 E	250	380000 E
TNMOC ref. to Heptane (MW=100)	470	17000	1900	70000

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-84-50_091718

Lab ID#: 1809378-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	39	6.4	220
Freon 113	1.1	34	8.7	260
1,1-Dichloroethene	1.1	1.5	4.5	5.9
Acetone	11	15	27	35
2-Butanone (Methyl Ethyl Ketone)	4.6	19	13	56
Trichloroethene	1.1	9.7	6.1	52
Tetrachloroethene	1.1	84	7.7	570
TNMOC ref. to Heptane (MW=100)	23	290	93	1200

Client Sample ID: OC_SVE_VMP-84-40_091718

Lab ID#: 1809378-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	32	6.6	180
Freon 113	1.2	30	9.1	230
1,1-Dichloroethene	1.2	4.0	4.7	16
Acetone	12	16	28	38
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	47
Trichloroethene	1.2	20	6.4	100
Tetrachloroethene	1.2	120	8.0	810
4-Ethyltoluene	1.2	2.7	5.8	13
1,3,5-Trimethylbenzene	1.2	1.4	5.8	7.0
1,2,4-Trimethylbenzene	1.2	6.2	5.8	30
TNMOC ref. to Heptane (MW=100)	24	630	97	2600

Client Sample ID: OC_SVE_VMP-84-24_091718

Lab ID#: 1809378-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	55	6.7	310
Freon 113	1.2	81	9.1	620
Acetone	12	14	28	32
2-Butanone (Methyl Ethyl Ketone)	4.8	13	14	40

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-84-24_091718

Lab ID#: 1809378-20A

Trichloroethene	1.2	67	6.4	360
Tetrachloroethene	1.2	190	8.1	1300
TNMOC ref. to Heptane (MW=100)	24	550	97	2200

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Client Sample ID: OC_SVE_VMP-40-24_091718

Lab ID#: 1809378-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092510**	**Date of Collection:**	**9/17/18 2:41:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 04:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	110	29	260
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	200	14	590
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	1.8	6.6	9.8
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	24	8.3	160
2-Hexanone	4.9	6.4	20	26
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VMP-40-24_091718

Lab ID#: 1809378-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092510**	**Date of Collection:**	**9/17/18 2:41:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 04:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	220	100	900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-40-12_091718

Lab ID#: 1809378-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092511**	**Date of Collection:**	**9/17/18 2:32:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**9/25/18 04:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.8	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Acetone	12	170	30	400
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	290	15	860
cis-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	1.8	6.7	9.8
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	32	8.5	220
2-Hexanone	5.0	9.4	20	38
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-40-12_091718

Lab ID#: 1809378-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092511**	**Date of Collection:**	**9/17/18 2:32:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**9/25/18 04:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	320	100	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-25_091718

Lab ID#: 1809378-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092512**	**Date of Collection:**	**9/17/18 3:50:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 05:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	400	29	950
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	12	15	38
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	1800 E	14	5200 E
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	21	8.3	140
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VMP-25_091718

Lab ID#: 1809378-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092512**	**Date of Collection:**	**9/17/18 3:50:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 05:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	1700	100	7000

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-41-55_091718

Lab ID#: 1809378-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092513**	**Date of Collection:**	**9/17/18 2:01:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/25/18 05:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	1.9	6.4	11
Freon 113	1.1	2.7	8.8	21
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	59	27	140
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	14	14	44
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	100	14	300
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	12	7.8	81
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-41-55_091718

Lab ID#: 1809378-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092513**	**Date of Collection:**	**9/17/18 2:01:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/25/18 05:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	110	94	450

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_VMP-40-55_091718

Lab ID#: 1809378-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092514**	**Date of Collection:**	**9/17/18 2:51:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**9/25/18 05:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	29	26	60
Vinyl Chloride	1.2	1.6	3.2	4.1
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	130	29	300
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	220	15	670
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	220	15	630
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	2.1	6.7	11
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	24	8.4	170
2-Hexanone	5.0	6.0	20	24
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-40-55_091718

Lab ID#: 1809378-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092514**	**Date of Collection:**	**9/17/18 2:51:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**9/25/18 05:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
1,1-Difluoroethane	5.0	Not Detected	13	Not Detected
Vinyl Acetate	5.0	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	330	100	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-23_091718

Lab ID#: 1809378-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092515**	**Date of Collection:**	**9/17/18 3:35:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**9/25/18 06:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.7	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	120	29	280
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	15	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	210	15	620
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	1.7	6.7	9.1
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	50	8.4	340
2-Hexanone	5.0	6.1	20	25
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-23_091718

Lab ID#: 1809378-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092515**	**Date of Collection:**	**9/17/18 3:35:00 PM**
Dil. Factor:	**2.48**	**Date of Analysis:**	**9/25/18 06:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	53	Not Detected
1,1-Difluoroethane	5.0	Not Detected	13	Not Detected
Vinyl Acetate	5.0	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	230	100	940

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-40-6_091718

Lab ID#: 1809378-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092516**	**Date of Collection:**	**9/17/18 2:22:00 PM**
Dil. Factor:	**2.45**	**Date of Analysis:**	**9/25/18 06:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	140	29	330
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	290	14	860
cis-1,2-Dichloroethene	1.2	1.7	4.8	6.7
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	4.6	6.6	25
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	38	8.3	260
2-Hexanone	4.9	10	20	43
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-40-6_091718

Lab ID#: 1809378-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092516**	**Date of Collection:**	**9/17/18 2:22:00 PM**
Dil. Factor:	**2.45**	**Date of Analysis:**	**9/25/18 06:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	340	100	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-41-6_091718

Lab ID#: 1809378-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092521**	**Date of Collection:**	**9/17/18 1:27:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**9/25/18 10:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.2	Not Detected
Freon 114	1.2	Not Detected	8.8	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	7.0	Not Detected
Freon 113	1.2	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Acetone	12	79	30	190
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	12	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Hexane	1.2	32	4.4	110
1,1-Dichloroethane	1.2	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	140	15	400
cis-1,2-Dichloroethene	1.2	Not Detected	5.0	Not Detected
Chloroform	1.2	Not Detected	6.1	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.9	Not Detected
Benzene	1.2	4.2	4.0	14
1,2-Dichloroethane	1.2	Not Detected	5.1	Not Detected
Trichloroethene	1.2	Not Detected	6.7	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.1	Not Detected
Toluene	1.2	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.8	Not Detected
Tetrachloroethene	1.2	19	8.5	130
2-Hexanone	5.0	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.6	Not Detected
Chlorobenzene	1.2	Not Detected	5.8	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-41-6_091718

Lab ID#: 1809378-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092521**	**Date of Collection:**	**9/17/18 1:27:00 PM**
Dil. Factor:	**2.51**	**Date of Analysis:**	**9/25/18 10:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.6	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.2	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.5	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	360	100	1500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-41-24_091718

Lab ID#: 1809378-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092522**	**Date of Collection:**	**9/17/18 1:47:00 PM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**9/25/18 11:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	88	28	210
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	1.2	4.2	4.4
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	110	14	310
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	12	8.0	82
2-Hexanone	4.7	4.7	19	19
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-41-24_091718

Lab ID#: 1809378-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092522**	**Date of Collection:**	**9/17/18 1:47:00 PM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**9/25/18 11:16 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	170	96	700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-39-24_091718

Lab ID#: 1809378-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092523**	**Date of Collection:**	**9/17/18 8:15:00 AM**
Dil. Factor:	**2.27**	**Date of Analysis:**	**9/25/18 11:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	24	27	58
2-Propanol	4.5	16	11	39
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	7.0	13	20
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	1.1	6.1	6.2
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	1.5	4.3	5.5
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	26	7.7	180
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.7	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

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Client Sample ID: OC_SVE_VMP-39-24_091718

Lab ID#: 1809378-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092523**	**Date of Collection:**	**9/17/18 8:15:00 AM**
Dil. Factor:	**2.27**	**Date of Analysis:**	**9/25/18 11:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	34	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	81	12	220
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	85	93	350

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_VMP-84-12_091718

Lab ID#: 1809378-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092525**	**Date of Collection:**	**9/17/18 8:53:00 AM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/26/18 12:35 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	40	6.7	220
Freon 113	1.2	60	9.2	460
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	17	28	41
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	12	14	37
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	24	6.4	130
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	130	8.1	860
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-84-12_091718

Lab ID#: 1809378-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092525**	**Date of Collection:**	**9/17/18 8:53:00 AM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/26/18 12:35 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	350	98	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-39-12_091718

Lab ID#: 1809378-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092526**	**Date of Collection:**	**9/17/18 8:01:00 AM**
Dil. Factor:	**2.25**	**Date of Analysis:**	**9/26/18 01:02 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	3.0	6.3	17
Freon 113	1.1	3.9	8.6	30
1,1-Dichloroethene	1.1	1.4	4.5	5.6
Acetone	11	22	27	52
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	5.6	13	16
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	3.7	6.0	20
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	1.7	4.2	6.6
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	65	7.6	440
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.6	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	1.3	4.9	5.8
o-Xylene	1.1	Not Detected	4.9	Not Detected

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Client Sample ID: OC_SVE_VMP-39-12_091718

Lab ID#: 1809378-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092526**	**Date of Collection:**	**9/17/18 8:01:00 AM**
Dil. Factor:	**2.25**	**Date of Analysis:**	**9/26/18 01:02 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	250	12	680
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	22	170	92	700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-41-12_091718

Lab ID#: 1809378-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092528**	**Date of Collection:**	**9/17/18 1:38:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/26/18 01:54 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 113	1.1	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	85	27	200
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	140	14	410
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	16	7.8	110
2-Hexanone	4.6	4.6	19	19
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-41-12_091718

Lab ID#: 1809378-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092528**	**Date of Collection:**	**9/17/18 1:38:00 PM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/26/18 01:54 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	150	94	610

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-39-6_091718

Lab ID#: 1809378-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092507**	**Date of Collection:**	**9/17/18 7:48:00 AM**
Dil. Factor:	**2.19**	**Date of Analysis:**	**9/25/18 03:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.6	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
Freon 11	1.1	26	6.2	140
Freon 113	1.1	39	8.4	300
1,1-Dichloroethene	1.1	14	4.3	54
Acetone	11	27	26	65
2-Propanol	4.4	Not Detected	11	Not Detected
Carbon Disulfide	4.4	Not Detected	14	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	38	Not Detected
Methyl tert-butyl ether	4.4	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Hexane	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.4	7.6	13	22
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Chloroform	1.1	Not Detected	5.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Benzene	1.1	1.3	3.5	4.2
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	39	5.9	210
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.3	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	430	7.4	2900
2-Hexanone	4.4	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.3	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.0	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected

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Client Sample ID: OC_SVE_VMP-39-6_091718

Lab ID#: 1809378-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092507**	**Date of Collection:**	**9/17/18 7:48:00 AM**
Dil. Factor:	**2.19**	**Date of Analysis:**	**9/25/18 03:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.7	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.5	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	32	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
1,1-Difluoroethane	4.4	81	12	220
Vinyl Acetate	4.4	Not Detected	15	Not Detected
TNMOC ref. to Heptane (MW=100)	22	1000	90	4100

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-84-6_091718

Lab ID#: 1809378-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092508**	**Date of Collection:**	**9/17/18 8:42:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/25/18 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	55	6.5	310
Freon 113	1.2	79	8.9	610
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	15	28	35
2-Propanol	4.7	Not Detected	11	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	7.8	14	23
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	93	6.3	500
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	210	7.9	1400
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-84-6_091718

Lab ID#: 1809378-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092508**	**Date of Collection:**	**9/17/18 8:42:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**9/25/18 03:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	12	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	620	95	2500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-84-60_091718

Lab ID#: 1809378-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092509**	**Date of Collection:**	**9/17/18 9:47:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/25/18 04:11 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	49	6.4	280
Freon 113	1.1	31	8.8	240
1,1-Dichloroethene	1.1	4.2	4.5	17
Acetone	11	24	27	56
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	28	14	83
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	7.7	6.2	42
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	61	7.8	410
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-84-60_091718

Lab ID#: 1809378-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092509**	**Date of Collection:**	**9/17/18 9:47:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/25/18 04:11 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	23	12	61
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	330	94	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-39-55_091718

Lab ID#: 1809378-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092518**	**Date of Collection:**	**9/17/18 7:28:00 AM**
Dil. Factor:	**46.8**	**Date of Analysis:**	**9/25/18 09:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	23	Not Detected	120	Not Detected
Freon 114	23	Not Detected	160	Not Detected
Chloromethane	230	Not Detected	480	Not Detected
Vinyl Chloride	23	Not Detected	60	Not Detected
Bromomethane	230	Not Detected	910	Not Detected
Chloroethane	94	Not Detected	250	Not Detected
Freon 11	23	27	130	150
Freon 113	23	37	180	280
1,1-Dichloroethene	23	75	93	300
Acetone	230	Not Detected	560	Not Detected
2-Propanol	94	Not Detected	230	Not Detected
Carbon Disulfide	94	Not Detected	290	Not Detected
3-Chloropropene	94	Not Detected	290	Not Detected
Methylene Chloride	230	Not Detected	810	Not Detected
Methyl tert-butyl ether	94	Not Detected	340	Not Detected
trans-1,2-Dichloroethene	23	Not Detected	93	Not Detected
Hexane	23	Not Detected	82	Not Detected
1,1-Dichloroethane	23	Not Detected	95	Not Detected
2-Butanone (Methyl Ethyl Ketone)	94	Not Detected	280	Not Detected
cis-1,2-Dichloroethene	23	Not Detected	93	Not Detected
Chloroform	23	Not Detected	110	Not Detected
1,1,1-Trichloroethane	23	Not Detected	130	Not Detected
Carbon Tetrachloride	23	Not Detected	150	Not Detected
Benzene	23	Not Detected	75	Not Detected
1,2-Dichloroethane	23	Not Detected	95	Not Detected
Trichloroethene	23	210	120	1100
1,2-Dichloropropane	23	Not Detected	110	Not Detected
1,4-Dioxane	94	Not Detected	340	Not Detected
Bromodichloromethane	23	Not Detected	160	Not Detected
cis-1,3-Dichloropropene	23	Not Detected	110	Not Detected
4-Methyl-2-pentanone	23	Not Detected	96	Not Detected
Toluene	23	Not Detected	88	Not Detected
trans-1,3-Dichloropropene	23	Not Detected	110	Not Detected
1,1,2-Trichloroethane	23	Not Detected	130	Not Detected
Tetrachloroethene	23	580	160	3900
2-Hexanone	94	Not Detected	380	Not Detected
Dibromochloromethane	23	Not Detected	200	Not Detected
1,2-Dibromoethane (EDB)	23	Not Detected	180	Not Detected
Chlorobenzene	23	Not Detected	110	Not Detected
Ethyl Benzene	23	Not Detected	100	Not Detected
m,p-Xylene	23	Not Detected	100	Not Detected
o-Xylene	23	Not Detected	100	Not Detected

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Client Sample ID: OC_SVE_VMP-39-55_091718

Lab ID#: 1809378-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092518**	**Date of Collection:**	**9/17/18 7:28:00 AM**
Dil. Factor:	**46.8**	**Date of Analysis:**	**9/25/18 09:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	23	Not Detected	100	Not Detected
Bromoform	23	Not Detected	240	Not Detected
1,1,2,2-Tetrachloroethane	23	Not Detected	160	Not Detected
4-Ethyltoluene	23	Not Detected	120	Not Detected
1,3,5-Trimethylbenzene	23	Not Detected	120	Not Detected
1,2,4-Trimethylbenzene	23	Not Detected	120	Not Detected
1,3-Dichlorobenzene	23	Not Detected	140	Not Detected
1,4-Dichlorobenzene	23	Not Detected	140	Not Detected
alpha-Chlorotoluene	23	Not Detected	120	Not Detected
1,2-Dichlorobenzene	23	Not Detected	140	Not Detected
1,2,4-Trichlorobenzene	94	Not Detected	690	Not Detected
Hexachlorobutadiene	94	Not Detected	1000	Not Detected
1,1-Difluoroethane	94	140000 E	250	380000 E
Vinyl Acetate	94	Not Detected	330	Not Detected
TNMOC ref. to Heptane (MW=100)	470	17000	1900	70000

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: OC_SVE_VMP-84-50_091718

Lab ID#: 1809378-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092511**	**Date of Collection:**	**9/17/18 9:34:00 AM**
Dil. Factor:	**2.28**	**Date of Analysis:**	**9/25/18 05:07 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	39	6.4	220
Freon 113	1.1	34	8.7	260
1,1-Dichloroethene	1.1	1.5	4.5	5.9
Acetone	11	15	27	35
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	19	13	56
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	9.7	6.1	52
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	84	7.7	570
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.1	Not Detected	9.7	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-84-50_091718

Lab ID#: 1809378-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092511**	**Date of Collection:**	**9/17/18 9:34:00 AM**
Dil. Factor:	**2.28**	**Date of Analysis:**	**9/25/18 05:07 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	290	93	1200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: OC_SVE_VMP-84-40_091718

Lab ID#: 1809378-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092512**	**Date of Collection:**	**9/17/18 9:19:00 AM**
Dil. Factor:	**2.37**	**Date of Analysis:**	**9/25/18 05:35 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	32	6.6	180
Freon 113	1.2	30	9.1	230
1,1-Dichloroethene	1.2	4.0	4.7	16
Acetone	12	16	28	38
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	16	14	47
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	20	6.4	100
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	120	8.0	810
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-84-40_091718

Lab ID#: 1809378-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092512**	**Date of Collection:**	**9/17/18 9:19:00 AM**
Dil. Factor:	**2.37**	**Date of Analysis:**	**9/25/18 05:35 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	2.7	5.8	13
1,3,5-Trimethylbenzene	1.2	1.4	5.8	7.0
1,2,4-Trimethylbenzene	1.2	6.2	5.8	30
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	630	97	2600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	92	70-130

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Client Sample ID: OC_SVE_VMP-84-24_091718

Lab ID#: 1809378-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092514**	**Date of Collection:**	**9/17/18 9:07:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/25/18 07:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	55	6.7	310
Freon 113	1.2	81	9.1	620
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	14	28	32
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	13	14	40
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	67	6.4	360
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	190	8.1	1300
2-Hexanone	4.8	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-84-24_091718

Lab ID#: 1809378-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092514**	**Date of Collection:**	**9/17/18 9:07:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/25/18 07:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	550	97	2200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809378-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809378-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809378-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 02:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809378-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 02:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: CCV

Lab ID#: 1809378-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 10:25 AM**

Compound	%Recovery
Freon 12	94
Freon 114	98
Chloromethane	96
Vinyl Chloride	101
Bromomethane	103
Chloroethane	102
Freon 11	92
Freon 113	93
1,1-Dichloroethene	94
Acetone	93
2-Propanol	83
Carbon Disulfide	102
3-Chloropropene	100
Methylene Chloride	95
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	96
Hexane	94
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	97
Chloroform	105
1,1,1-Trichloroethane	99
Carbon Tetrachloride	97
Benzene	110
1,2-Dichloroethane	102
Trichloroethene	109
1,2-Dichloropropane	108
1,4-Dioxane	97
Bromodichloromethane	109
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	96
Toluene	109
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	108
Tetrachloroethene	99
2-Hexanone	96
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	104
Chlorobenzene	102
Ethyl Benzene	101
m,p-Xylene	101
o-Xylene	98

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Client Sample ID: CCV

Lab ID#: 1809378-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 10:25 AM**	

Compound	**%Recovery**
Styrene	99
Bromoform	99
1,1,2,2-Tetrachloroethane	108
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	83
1,1-Difluoroethane	109
Vinyl Acetate	101
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: CCV

Lab ID#: 1809378-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:44 AM**

Compound	%Recovery
Freon 12	105
Freon 114	101
Chloromethane	127
Vinyl Chloride	114
Bromomethane	109
Chloroethane	122
Freon 11	102
Freon 113	101
1,1-Dichloroethene	109
Acetone	124
2-Propanol	124
Carbon Disulfide	110
3-Chloropropene	114
Methylene Chloride	120
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	109
Hexane	117
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	110
Chloroform	108
1,1,1-Trichloroethane	104
Carbon Tetrachloride	105
Benzene	107
1,2-Dichloroethane	113
Trichloroethene	104
1,2-Dichloropropane	109
1,4-Dioxane	108
Bromodichloromethane	108
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	109
Toluene	98
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	106
Tetrachloroethene	104
2-Hexanone	109
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	106
Chlorobenzene	101
Ethyl Benzene	102
m,p-Xylene	106
o-Xylene	108

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Client Sample ID: CCV

Lab ID#: 1809378-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:44 AM**	

Compound	**%Recovery**
Styrene	100
Bromoform	109
1,1,2,2-Tetrachloroethane	101
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	97
1,1-Difluoroethane	95
Vinyl Acetate	121
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 1809378-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:02 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	100	70-130
Chloromethane	109	70-130
Vinyl Chloride	107	70-130
Bromomethane	106	70-130
Chloroethane	108	70-130
Freon 11	93	70-130
Freon 113	94	70-130
1,1-Dichloroethene	96	70-130
Acetone	94	70-130
2-Propanol	85	70-130
Carbon Disulfide	106	70-130
3-Chloropropene	105	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	107	70-130
Hexane	96	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	100	70-130
Benzene	108	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	112	70-130
1,2-Dichloropropane	108	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	99	70-130
2-Hexanone	102	70-130
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	102	70-130

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Client Sample ID: LCS

Lab ID#: 1809378-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:02 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	102	70-130
Bromoform	104	70-130
1,1,2,2-Tetrachloroethane	109	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	86	70-130
Hexachlorobutadiene	87	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	96	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: LCSD

Lab ID#: 1809378-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:29 AM**	

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	99	70-130
Chloromethane	106	70-130
Vinyl Chloride	105	70-130
Bromomethane	106	70-130
Chloroethane	106	70-130
Freon 11	92	70-130
Freon 113	92	70-130
1,1-Dichloroethene	95	70-130
Acetone	93	70-130
2-Propanol	84	70-130
Carbon Disulfide	104	70-130
3-Chloropropene	103	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	97	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	99	70-130
Benzene	109	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	113	70-130
1,2-Dichloropropane	109	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	115	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	100	70-130
2-Hexanone	104	70-130
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1809378-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:29 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	103	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	110	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	94	70-130
Hexachlorobutadiene	96	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	97	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: LCS

Lab ID#: 1809378-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:22 PM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	99	70-130
Chloromethane	124	70-130
Vinyl Chloride	116	70-130
Bromomethane	108	70-130
Chloroethane	116	70-130
Freon 11	100	70-130
Freon 113	97	70-130
1,1-Dichloroethene	107	70-130
Acetone	117	70-130
2-Propanol	120	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	115	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	105	70-130
trans-1,2-Dichloroethene	115	70-130
Hexane	115	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	100	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	103	70-130
Benzene	105	70-130
1,2-Dichloroethane	109	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	107	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	99	70-130
2-Hexanone	103	70-130
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	101	70-130
o-Xylene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1809378-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:22 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	99	70-130
Bromoform	108	70-130
1,1,2,2-Tetrachloroethane	95	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	79	70-130
Hexachlorobutadiene	80	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	113	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1809378-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:47 PM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	101	70-130
Chloromethane	127	70-130
Vinyl Chloride	118	70-130
Bromomethane	113	70-130
Chloroethane	123	70-130
Freon 11	105	70-130
Freon 113	101	70-130
1,1-Dichloroethene	110	70-130
Acetone	119	70-130
2-Propanol	125	70-130
Carbon Disulfide	112	70-130
3-Chloropropene	118	70-130
Methylene Chloride	119	70-130
Methyl tert-butyl ether	109	70-130
trans-1,2-Dichloroethene	123	70-130
Hexane	118	70-130
1,1-Dichloroethane	114	70-130
2-Butanone (Methyl Ethyl Ketone)	115	70-130
cis-1,2-Dichloroethene	103	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	106	70-130
Carbon Tetrachloride	106	70-130
Benzene	104	70-130
1,2-Dichloroethane	111	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	102	70-130
2-Hexanone	109	70-130
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	106	70-130
o-Xylene	109	70-130

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Client Sample ID: LCSD

Lab ID#: 1809378-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:47 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	103	70-130
Bromoform	113	70-130
1,1,2,2-Tetrachloroethane	99	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	88	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	110	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	104	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 1 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-40-24_091718	VMP-40-24'	SV	1L2825	1 L	23282	9/17/2018	1436	-30	9/17/2018	1441	-5	X				
02A	2	OC_SVE_VMP-40-12_091718	VMP-40-12'	SV	1L3172	1 L	24290	9/17/2018	1426	-29	9/17/2018	1432	-5	X				
03A	3	OC_SVE_VMP-25_091718	VMP-25-30'	SV	1L3893	1 L	23310	9/17/2018	1545	-30	9/17/2018	1550	-5	X				
04A	4	OC_SVE_VMP-41-55_091718	VMP-41-55'	SV	1L1799	1 L	23218	9/17/2018	1356	-28	9/17/2018	1401	-5	X				
05A	5	OC_SVE_VMP-40-55_091718	VMP-40-55'	SV	1L1587	1 L	23491	9/17/2018	1445	-30	9/17/2018	1451	-5	X				
06A	6	OC_SVE_VMP-23_091718	VMP-23-30'	SV	1L3144	1 L	23520	9/17/2018	1530	-30	9/17/2018	1535	-4	X				
07A	7	OC_SVE_VMP-40-6_091718	VMP-40-6'	SV	1L2306	1 L	23355	9/17/2018	1417	-30	9/17/2018	1422	-5	X				
08A	8	OC_SVE_VMP-41-6_091718	VMP-41-6'	SV	1L2709	1 L	24205	9/17/2018	1322	-30	9/17/2018	1327	-5	X				
09A	9	OC_SVE_VMP-41-24_091718	VMP-41-24'	SV	1L3885	1 L	23293	9/17/2018	1343	-30	9/17/2018	1347	-4	X				
10A	10	OC_SVE_VMP-39-24_091718	VMP-39-24'	SV	1L2326	1 L	24318	9/17/2018	810	-30	9/17/2018	815	-5	X				
11A	11	OC_SVE_VMP-84-12_091718	VMP-84-12'	SV	1L2985	1 L	24278	9/17/2018	848	-28	9/17/2018	853	-5	X				
12A	12	OC_SVE_VMP-39-12_091718	VMP-39-12'	SV	1L2764	1 L	23321	9/17/2018	754	-30	9/17/2018	801	-5	X				
13A	13	OC_SVE_VMP-41-12_091718	VMP-41-12'	SV	1L1575	1 L	23283	9/17/2018	1331	-30	9/17/2018	1338	-5	X				
14A	14	OC_SVE_VMP-39-6_091718	VMP-39-6'	SV	1L3827	1 L	23158	9/17/2018	742	-30	9/17/2018	748	-5	X				
15A	15	OC_SVE_VMP-84-6_091718	VMP-84-5'	SV	1L1926	1 L	23211	9/17/2018	837	-28	9/17/2018	842	-5	X				
16A	16	OC_SVE_VMP-84-60_091718	VMP-84-60'	SV	1L3816	1 L	23499	9/17/2018	941	-30	9/17/2018	947	-5	X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Revised COC Rec'd 9/25/18
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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 2 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE): Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
1	OC_SVE_VMP-39-55_091718	VMP-39-55'	SV	1L2787	1 L	23233	9/17/2018	722	-30	9/17/2018	728	-5	X				
2	OC_SVE_VMP-84-50_091718	VMP-84-50'	SV	1L3070	1 L	23436	9/17/2018	929	-30	9/17/2018	934	-5	X				
3	OC_SVE_VMP-84-40_091718	VMP-84-40'	SV	1L2491	1 L	23753	9/17/2018	914	-30	9/17/2018	919	-5	X				
4	OC_SVE_VMP-84-24_091718	VMP-84-24'	SV	1L1841	1 L	23109	9/17/2018	902	-27	9/17/2018	907	-5	X				
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	

17A
18A
19A
20A

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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Revised COC 9/25/18
180978

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 1 OF 4

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SAMPLER(S): (NAME / SIGNATURE) Khalid Asher

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☑ EDD

SPECIAL INSTRUCTIONS: Fedex
Custody Seal Intact?
Y N None Temp NA

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-40-24_091718		SV	1L2625	1 L	23262	9/17/2018	1436	-30	9/17/2018	1441	-5	X				
02A	2	OC_SVE_VMP-40-12_091718		SV	1L3172	1 L	24290	9/17/2018	1426	-29	9/17/2018	1432	-5	X				
03A	3	OC_SVE_VMP-25_091718		SV	1L3893	1 L	23310	9/17/2018	1545	-30	9/17/2018	1550	-5	X				
04A	4	OC_SVE_VMP-41-55_091718		SV	1L1799	1 L	23218	9/17/2018	1356	-28	9/17/2018	1401	-5	X				
05A	5	OC_SVE_VMP-24_091718		SV	1L2749	1 L	23403	9/17/2018	1312	-30	9/17/2018	1319	-5	X				
06A	6	OC_SVE_VMP-40-55_091718		SV	1L1687	1 L	23491	9/17/2018	1445	-30	9/17/2018	1451	-5	X				
07A	7	OC_SVE_VMP-23_091718		SV	1L3144	1 L	23520	9/17/2018	1530	-30	9/17/2018	1535	-4	X				
08A	8	OC_SVE_VMP-40-6_091718		SV	1L2306	1 L	23355	9/17/2018	1417	-30	9/17/2018	1422	-5	X				
09A	9	OC_SVE_VMP-41-6_091718		SV	1L2709	1 L	24205	9/17/2018	1322	-30	9/17/2018	1327	-5	X				
10A	10	OC_SVE_VMP-41-24_091718		SV	1L3865	1 L	23293	9/17/2018	1343	-30	9/17/2018	1347	-4	X				
11A	11	OC_SVE_VMP-39-24_091718		SV	1L2326	1 L	24318	9/17/2018	0810	-30	9/17/2018	0815	-5	X				
12A	12	OC_SVE_VMP-21_091718		SV	1L2793	1 L	23294	9/17/2018	1135	-30	9/17/2018	1142	-5	X				
13A	13	OC_SVE_VMP-84-12_091718		SV	1L2785	1 L	24278	9/17/2018	0848	-28	9/17/2018	0853	-5	X				
14A	14	OC_SVE_VMP-39-12_091718		SV	1L2764	1 L	23321	9/17/2018	0754	-30	9/17/2018	0801	-5	X				
15A	15	OC_SVE_VMP-18_091718		SV	20781	1 L	23322	9/17/2018	1004	-30	9/17/2018	1009	-5	X				
16A		OC_SVE_VMP-41-12_091718		SV	1L1575	1 L	23283	9/17/2018	1331	-30	9/17/2018	1338	-5	X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	GATL	9/20/18	0945
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
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Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 2 OF 4

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
ADDRESS: 1322 Scott St., Suite 104	PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: San Diego STATE: CA ZIP: 92106	CITY: Whittier STATE: CA ZIP: 90802
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com	PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS	SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD	
SPECIAL INSTRUCTIONS: Custody Seal Intact? Y N (None) Temp NA	

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
1	OC_SVE_VMP-39-6_091718		SV	IL3827	1 L	23158	9/17/2018	0742	-20	9/17/2018	0748	-5	X				
2	OC_SVE_VMP-84-6_091718		SV	IL1926	1 L	23211	9/17/2018	0837	-28	9/17/2018	0842	-5	X				
3	OC_SVE_VMP-84-60_091718		SV	IL3816	1 L	23499	9/17/2018	0941	-30	9/17/2018	0947	-5	X				
4	OC_SVE_VMP-39-55_091718		SV	IL2787	1 L	23233	9/17/2018	0722	-30	9/17/2018	0728	-5	X				
5	OC_SVE_VMP-84-50_091718		SV	IL3070	1 L	23436	9/17/2018	0929	-30	9/17/2018	0934	-5	X				
6	OC_SVE_VMP-84-40_091718		SV	IL2491	1 L	23763	9/17/2018	0914	-30	9/17/2018	0919	-5	X				
7	OC_SVE_VMP-27_091718		SV	5526	1 L	23135	9/17/2018	1211	-30	9/17/2018	1216	-5	X				
8	OC_SVE_VMP-84-24_091718		SV	IL1841	1 L	23109	9/17/2018	0902	-27	9/17/2018	0907	-5	X				
9	OC_SVE_VMP-20_091718		SV	IL2939	1 L	23513	9/17/2018	1101	-30	9/17/2018	1107	-5	X				
10	OC_SVE_VMP-26_091718		SV	IL2544	1 L	23526	9/17/2018	1157	-30	9/17/2018	1157	-4.5	X				
11	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				
12	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				
13	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				
14	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				
15	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				
	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X				

01A NA
02A 18A
03A 19A
04A 20A
05A 21A
06A 22A
07A 23A
08A 24A
09A 25A
10A 26A

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	EATL	9/20/18	0945
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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10/3/2018
Ms. Jaime Dinello
DeMaximis, Inc
1340 Reynolds Ave, Suite 105

Irvine CA 92614

Project Name: Omega - Semi-Annual VMP September 2018
Project #:
Workorder #: 1809379R1

Dear Ms. Jaime Dinello

The following report includes the data for the above referenced project for sample(s) received on 9/20/2018 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1809379R1

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Semi-Annual VMP September 2018
DATE RECEIVED:	09/20/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/27/2018		
DATE REISSUED:	10/03/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	OC_SVE_VMP-24_091718	TO-15	4.3 "Hg	15 psi
02A	OC_SVE_VMP-21_091718	TO-15	4.9 "Hg	15.1 psi
03A	OC_SVE_VMP-18_091718	TO-15	5.1 "Hg	15.1 psi
04A	OC_SVE_VMP-27_091718	TO-15	6.3 "Hg	15 psi
05A	OC_SVE_VMP-20_091718	TO-15	2.6 "Hg	15 psi
06A	OC_SVE_VMP-26_091718	TO-15	5.5 "Hg	14.8 psi
07A	OC_SVE_VMP-94-24_091818	TO-15	4.3 "Hg	15.3 psi
08A	OC_SVE_VMP-94-24_091818K	TO-15	4.1 "Hg	14.8 psi
09A	OC_SVE_VMP-94-60_091818	TO-15	3.9 "Hg	15 psi
10A	OC_SVE_VMP-43-24_091818	TO-15	3.9 "Hg	15.3 psi
11A	OC_SVE_VMP-95-61_091818	TO-15	3.7 "Hg	14.5 psi
12A	OC_SVE_VMP-32-24_091818	TO-15	3.5 "Hg	15 psi
13A	OC_SVE_VMP-32-24_091818K	TO-15	4.5 "Hg	15 psi
14A	OC_SVE_VMP-32-60_091818	TO-15	4.5 "Hg	15.4 psi
15A	OC_SVE_VMP-31-24_091818	TO-15	4.7 "Hg	15 psi
16A.(cancelled)	OC_SVE_VMP-31-70_091818	TO-15	22.4 "Hg	15 psi
17A	OC_SVE_VMP-22_091818	TO-15	4.5 "Hg	15.1 psi
18A	OC_SVE_VMP-5_091818	TO-15	4.1 "Hg	15.1 psi
19A	OC_SVE_VMP-16_091818	TO-15	4.3 "Hg	14.9 psi
20A	OC_SVE_VMP-17_091818	TO-15	3.5 "Hg	15.2 psi
21A	OC_SVE_VMP-15_091818	TO-15	3.9 "Hg	14.8 psi
22A	OC_SVE_VMP-12_091818	TO-15	5.1 "Hg	14.8 psi
23A	OC_SVE_VMP-11_091818	TO-15	5.5 "Hg	14.8 psi

Continued on next page

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WORK ORDER #: 1809379R1

Work Order Summary

CLIENT:	Ms. Jaime Dinello DeMaximis, Inc 1340 Reynolds Ave, Suite 105 Irvine, CA 92614	**BILL TO:**	Mr. Tom Dorsey Omega Chemical Site Environmental Remediation Trust 1322 Scott St. Suite 104
PHONE:	949.679.9290	**P.O. #**	
FAX:	949.679.9078	**PROJECT #**	Omega - Semi-Annual VMP September 2018
DATE RECEIVED:	09/20/2018	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	09/27/2018		
DATE REISSUED:	10/03/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
24A	OC_SVE_VMP-92-68.5_091818	TO-15	4.3 "Hg	15 psi
25A	OC_SVE_VMP-93-60_091918	TO-15	5.5 "Hg	15 psi
26A	OC_SVE_VMP-93-60_091918K	TO-15	6.0 "Hg	15 psi
27A	OC_SVE_VMP-31-24_091818K	TO-15	5.5 "Hg	14.8 psi
28A	Lab Blank	TO-15	NA	NA
28B	Lab Blank	TO-15	NA	NA
28C	Lab Blank	TO-15	NA	NA
29A	CCV	TO-15	NA	NA
29B	CCV	TO-15	NA	NA
29C	CCV	TO-15	NA	NA
30A	LCS	TO-15	NA	NA
30AA	LCSD	TO-15	NA	NA
30B	LCS	TO-15	NA	NA
30BB	LCSD	TO-15	NA	NA
30C	LCS	TO-15	NA	NA
30CC	LCSD	TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 10/03/18

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
DeMaximis, Inc
Workorder# 1809379R1

Twenty-seven 1 Liter Summa Canister samples were received on September 20, 2018. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Sample OC_SVE_VMP-31-70_091818 was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

A revised Chain of Custody (COC) was provided by the client on 9/25/2018.

Analytical Notes

The TNMOC concentration was calculated by taking the total area counts in the sample and quantitating the area based on the response factor of TNMOC ref. to Heptane (MW=100).

Dilution was performed on sample OC_SVE_VMP-92-68.5_091818 due to the presence of high level target species.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The Summa canister for sample OC_SVE_VMP-20_091718 was initially pressurized to 15 psi upon receipt to the laboratory. Subsequently, sample was found to be at ambient pressure at the time of analysis. This resulted in re-pressurization to 14.8 psi and elevated reporting limits. The client was notified and the analysis proceeded. Reported analyte concentrations are considered to be estimated.

The Work Order was re-issued on 10/03/2018 to cancel sample OC_SVE_VMP-31-70_091818.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-24_091718

Lab ID#: 1809379R1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	86	28	200
2-Butanone (Methyl Ethyl Ketone)	4.7	160	14	460
Tetrachloroethene	1.2	20	8.0	140
2-Hexanone	4.7	4.7	19	19
TNMOC ref. to Heptane (MW=100)	24	180	96	740

Client Sample ID: OC_SVE_VMP-21_091718

Lab ID#: 1809379R1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	96	29	230
Carbon Disulfide	4.8	9.4	15	29
Hexane	1.2	5.3	4.3	19
2-Butanone (Methyl Ethyl Ketone)	4.8	140	14	430
Benzene	1.2	2.1	3.9	6.8
Trichloroethene	1.2	3.5	6.5	19
Tetrachloroethene	1.2	49	8.2	330
TNMOC ref. to Heptane (MW=100)	24	320	99	1300

Client Sample ID: OC_SVE_VMP-18_091718

Lab ID#: 1809379R1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.2	1.3	6.8	7.4
Acetone	12	55	29	130
2-Butanone (Methyl Ethyl Ketone)	4.9	62	14	180
Trichloroethene	1.2	7.2	6.6	39
Tetrachloroethene	1.2	37	8.3	250
TNMOC ref. to Heptane (MW=100)	24	130	100	530

Client Sample ID: OC_SVE_VMP-27_091718

Lab ID#: 1809379R1-04A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-27_091718

Lab ID#: 1809379R1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	140	30	330
2-Propanol	5.1	6.0	12	15
Carbon Disulfide	5.1	12	16	37
2-Butanone (Methyl Ethyl Ketone)	5.1	170	15	490
Tetrachloroethene	1.3	19	8.7	130
TNMOC ref. to Heptane (MW=100)	26	240	100	980

Client Sample ID: OC_SVE_VMP-20_091718

Lab ID#: 1809379R1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	21	40	50	96
2-Butanone (Methyl Ethyl Ketone)	8.4	49	25	140
Tetrachloroethene	2.1	22	14	150
TNMOC ref. to Heptane (MW=100)	42	120	170	490

Client Sample ID: OC_SVE_VMP-26_091718

Lab ID#: 1809379R1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	82	29	190
Carbon Disulfide	4.9	7.3	15	23
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	340
Tetrachloroethene	1.2	16	8.3	110
TNMOC ref. to Heptane (MW=100)	25	160	100	650

Client Sample ID: OC_SVE_VMP-94-24_091818

Lab ID#: 1809379R1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	34	28	80
2-Butanone (Methyl Ethyl Ketone)	4.8	110	14	320

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-94-24_091818

Lab ID#: 1809379R1-07A

Tetrachloroethene	1.2	13	8.1	87
2-Hexanone	4.8	5.8	19	24
TNMOC ref. to Heptane (MW=100)	24	140	97	570

Client Sample ID: OC_SVE_VMP-94-24_091818K

Lab ID#: 1809379R1-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	25	28	60
2-Butanone (Methyl Ethyl Ketone)	4.6	82	14	240
Tetrachloroethene	1.2	9.3	7.9	63
TNMOC ref. to Heptane (MW=100)	23	100	95	410

Client Sample ID: OC_SVE_VMP-94-60_091818

Lab ID#: 1809379R1-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	23	28	56
2-Butanone (Methyl Ethyl Ketone)	4.6	48	14	140
Tetrachloroethene	1.2	8.4	7.9	57
TNMOC ref. to Heptane (MW=100)	23	56	95	230

Client Sample ID: OC_SVE_VMP-43-24_091818

Lab ID#: 1809379R1-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	30	28	71
2-Butanone (Methyl Ethyl Ketone)	4.7	43	14	130
Tetrachloroethene	1.2	6.6	7.9	45
TNMOC ref. to Heptane (MW=100)	23	58	96	240

Client Sample ID: OC_SVE_VMP-95-61_091818

Lab ID#: 1809379R1-11A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-95-61_091818

Lab ID#: 1809379R1-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	16	27	39
2-Butanone (Methyl Ethyl Ketone)	4.5	26	13	76
Tetrachloroethene	1.1	4.5	7.7	31
TNMOC ref. to Heptane (MW=100)	23	52	92	210

Client Sample ID: OC_SVE_VMP-32-24_091818

Lab ID#: 1809379R1-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	11	31	27	73
Hexane	1.1	2.1	4.0	7.5
2-Butanone (Methyl Ethyl Ketone)	4.6	47	14	140
Benzene	1.1	1.4	3.6	4.4
Tetrachloroethene	1.1	5.6	7.8	38
TNMOC ref. to Heptane (MW=100)	23	100	94	410

Client Sample ID: OC_SVE_VMP-32-24_091818K

Lab ID#: 1809379R1-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	64	28	150
2-Propanol	4.8	6.7	12	16
2-Butanone (Methyl Ethyl Ketone)	4.8	57	14	170
Toluene	1.2	1.3	4.5	5.0
Tetrachloroethene	1.2	8.1	8.1	55
TNMOC ref. to Heptane (MW=100)	24	250	97	1000

Client Sample ID: OC_SVE_VMP-32-60_091818

Lab ID#: 1809379R1-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	37	29	88

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-32-60_091818

Lab ID#: 1809379R1-14A

2-Butanone (Methyl Ethyl Ketone)	4.8	56	14	170
Trichloroethene	1.2	1.5	6.5	8.1
Tetrachloroethene	1.2	5.3	8.2	36
TNMOC ref. to Heptane (MW=100)	24	160	98	650

Client Sample ID: OC_SVE_VMP-31-24_091818

Lab ID#: 1809379R1-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	36	28	86
2-Butanone (Methyl Ethyl Ketone)	4.8	68	14	200
Tetrachloroethene	1.2	6.1	8.1	42
TNMOC ref. to Heptane (MW=100)	24	150	98	610

Client Sample ID: OC_SVE_VMP-22_091818

Lab ID#: 1809379R1-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	78	28	180
2-Butanone (Methyl Ethyl Ketone)	4.8	150	14	430
Tetrachloroethene	1.2	14	8.1	96
TNMOC ref. to Heptane (MW=100)	24	120	97	490

Client Sample ID: OC_SVE_VMP-5_091818

Lab ID#: 1809379R1-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	82	28	200
2-Butanone (Methyl Ethyl Ketone)	4.7	120	14	340
Tetrachloroethene	1.2	8.9	8.0	61
TNMOC ref. to Heptane (MW=100)	24	130	96	530

Client Sample ID: OC_SVE_VMP-16_091818

Lab ID#: 1809379R1-19A

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-16_091818

Lab ID#: 1809379R1-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	150	28	370
2-Propanol	4.7	16	12	39
2-Butanone (Methyl Ethyl Ketone)	4.7	100	14	310
Tetrachloroethene	1.2	35	8.0	240
TNMOC ref. to Heptane (MW=100)	24	170	96	700

Client Sample ID: OC_SVE_VMP-17_091818

Lab ID#: 1809379R1-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	94	27	220
2-Butanone (Methyl Ethyl Ketone)	4.6	120	14	340
Tetrachloroethene	1.2	8.2	7.8	55
TNMOC ref. to Heptane (MW=100)	23	130	94	530

Client Sample ID: OC_SVE_VMP-15_091818

Lab ID#: 1809379R1-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	130	27	310
2-Butanone (Methyl Ethyl Ketone)	4.6	200	14	590
Tetrachloroethene	1.2	3.5	7.8	24
2-Hexanone	4.6	14	19	55
TNMOC ref. to Heptane (MW=100)	23	190	94	780

Client Sample ID: OC_SVE_VMP-12_091818

Lab ID#: 1809379R1-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	150	29	360
Hexane	1.2	48	4.3	170
2-Butanone (Methyl Ethyl Ketone)	4.8	600 E	14	1800 E

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-12_091818

Lab ID#: 1809379R1-22A

Benzene	1.2	6.3	3.9	20
Toluene	1.2	11	4.6	41
Tetrachloroethene	1.2	11	8.2	74
2-Hexanone	4.8	9.1	20	37
Ethyl Benzene	1.2	2.5	5.2	11
m,p-Xylene	1.2	9.5	5.2	41
o-Xylene	1.2	3.1	5.2	13
Styrene	1.2	1.9	5.2	7.9
TNMOC ref. to Heptane (MW=100)	24	780	99	3200

Client Sample ID: OC_SVE_VMP-11_091818

Lab ID#: 1809379R1-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	160	29	390
2-Propanol	4.9	5.7	12	14
Hexane	1.2	1.6	4.3	5.8
2-Butanone (Methyl Ethyl Ketone)	4.9	200	14	600
Tetrachloroethene	1.2	6.5	8.3	44
2-Hexanone	4.9	11	20	46
TNMOC ref. to Heptane (MW=100)	25	390	100	1600

Client Sample ID: OC_SVE_VMP-92-68.5_091818

Lab ID#: 1809379R1-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	3.4	62	19	350
Freon 113	3.4	160	26	1200
1,1-Dichloroethene	3.4	430	13	1700
Acetone	34	130	80	310
2-Butanone (Methyl Ethyl Ketone)	13	230	40	680
Chloroform	3.4	4.2	16	20
Trichloroethene	3.4	54	18	290
Tetrachloroethene	3.4	770	23	5200

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-92-68.5_091818

Lab ID#: 1809379R1-24A

TNMOC ref. to Heptane (MW=100)	67	2100	280	8600

Client Sample ID: OC_SVE_VMP-93-60_091918

Lab ID#: 1809379R1-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	36	29	86
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	360
Trichloroethene	1.2	2.0	6.6	11
Tetrachloroethene	1.2	29	8.4	200
2-Hexanone	4.9	7.8	20	32
TNMOC ref. to Heptane (MW=100)	25	220	100	900

Client Sample ID: OC_SVE_VMP-93-60_091918K

Lab ID#: 1809379R1-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	13	39	30	92
2-Butanone (Methyl Ethyl Ketone)	5.0	110	15	330
Trichloroethene	1.3	2.5	6.8	14
Tetrachloroethene	1.3	27	8.5	180
2-Hexanone	5.0	6.0	21	24
4-Ethyltoluene	1.3	1.9	6.2	9.4
1,2,4-Trimethylbenzene	1.3	3.5	6.2	17
TNMOC ref. to Heptane (MW=100)	25	340	100	1400

Client Sample ID: OC_SVE_VMP-31-24_091818K

Lab ID#: 1809379R1-27A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	12	100	29	240
2-Propanol	4.9	6.7	12	16
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	340
Tetrachloroethene	1.2	8.2	8.3	55

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: OC_SVE_VMP-31-24_091818K

Lab ID#: 1809379R1-27A

TNMOC ref. to Heptane (MW=100)	25	120	100	490

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Client Sample ID: OC_SVE_VMP-24_091718

Lab ID#: 1809379R1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092520**	**Date of Collection:**	**9/17/18 1:19:00 PM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**9/25/18 09:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	86	28	200
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	160	14	460
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	20	8.0	140
2-Hexanone	4.7	4.7	19	19
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-24_091718

Lab ID#: 1809379R1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092520**	**Date of Collection:**	**9/17/18 1:19:00 PM**
Dil. Factor:	**2.36**	**Date of Analysis:**	**9/25/18 09:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	180	96	740

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-21_091718

Lab ID#: 1809379R1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092524**	**Date of Collection:**	**9/17/18 11:42:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/26/18 12:09 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	96	29	230
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	9.4	15	29
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	5.3	4.3	19
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	140	14	430
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	2.1	3.9	6.8
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	3.5	6.5	19
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	49	8.2	330
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-21_091718

Lab ID#: 1809379R1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092524**	**Date of Collection:**	**9/17/18 11:42:00 AM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/26/18 12:09 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	320	99	1300

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-18_091718

Lab ID#: 1809379R1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092527**	**Date of Collection:**	**9/17/18 10:09:00 AM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/26/18 01:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.5	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	1.3	6.8	7.4
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	55	29	130
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	62	14	180
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	7.2	6.6	39
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	37	8.3	250
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VMP-18_091718

Lab ID#: 1809379R1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092527**	**Date of Collection:**	**9/17/18 10:09:00 AM**
Dil. Factor:	**2.44**	**Date of Analysis:**	**9/26/18 01:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	130	100	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	99	70-130

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Client Sample ID: OC_SVE_VMP-27_091718

Lab ID#: 1809379R1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092513**	**Date of Collection:**	**9/17/18 12:16:00 PM**
Dil. Factor:	**2.56**	**Date of Analysis:**	**9/25/18 06:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.3	Not Detected
Freon 114	1.3	Not Detected	8.9	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.3	Not Detected
Bromomethane	13	Not Detected	50	Not Detected
Chloroethane	5.1	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.2	Not Detected
Freon 113	1.3	Not Detected	9.8	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Acetone	13	140	30	330
2-Propanol	5.1	6.0	12	15
Carbon Disulfide	5.1	12	16	37
3-Chloropropene	5.1	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.1	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Hexane	1.3	Not Detected	4.5	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.1	170	15	490
cis-1,2-Dichloroethene	1.3	Not Detected	5.1	Not Detected
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.0	Not Detected
Benzene	1.3	Not Detected	4.1	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.2	Not Detected
Trichloroethene	1.3	Not Detected	6.9	Not Detected
1,2-Dichloropropane	1.3	Not Detected	5.9	Not Detected
1,4-Dioxane	5.1	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.6	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	Not Detected	4.8	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.8	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.0	Not Detected
Tetrachloroethene	1.3	19	8.7	130
2-Hexanone	5.1	Not Detected	21	Not Detected
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.8	Not Detected
Chlorobenzene	1.3	Not Detected	5.9	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected

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Client Sample ID: OC_SVE_VMP-27_091718

Lab ID#: 1809379R1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092513**	**Date of Collection:**	**9/17/18 12:16:00 PM**
Dil. Factor:	**2.56**	**Date of Analysis:**	**9/25/18 06:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.8	Not Detected
4-Ethyltoluene	1.3	Not Detected	6.3	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.3	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.6	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.7	Not Detected
1,2,4-Trichlorobenzene	5.1	Not Detected	38	Not Detected
Hexachlorobutadiene	5.1	Not Detected	55	Not Detected
1,1-Difluoroethane	5.1	Not Detected	14	Not Detected
Vinyl Acetate	5.1	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	26	240	100	980

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-20_091718

Lab ID#: 1809379R1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092522**	**Date of Collection:**	**9/17/18 11:07:00 AM**
Dil. Factor:	**4.20**	**Date of Analysis:**	**9/26/18 08:32 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.1	Not Detected	10	Not Detected
Freon 114	2.1	Not Detected	15	Not Detected
Chloromethane	21	Not Detected	43	Not Detected
Vinyl Chloride	2.1	Not Detected	5.4	Not Detected
Bromomethane	21	Not Detected	82	Not Detected
Chloroethane	8.4	Not Detected	22	Not Detected
Freon 11	2.1	Not Detected	12	Not Detected
Freon 113	2.1	Not Detected	16	Not Detected
1,1-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Acetone	21	40	50	96
2-Propanol	8.4	Not Detected	21	Not Detected
Carbon Disulfide	8.4	Not Detected	26	Not Detected
3-Chloropropene	8.4	Not Detected	26	Not Detected
Methylene Chloride	21	Not Detected	73	Not Detected
Methyl tert-butyl ether	8.4	Not Detected	30	Not Detected
trans-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Hexane	2.1	Not Detected	7.4	Not Detected
1,1-Dichloroethane	2.1	Not Detected	8.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	8.4	49	25	140
cis-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Chloroform	2.1	Not Detected	10	Not Detected
1,1,1-Trichloroethane	2.1	Not Detected	11	Not Detected
Carbon Tetrachloride	2.1	Not Detected	13	Not Detected
Benzene	2.1	Not Detected	6.7	Not Detected
1,2-Dichloroethane	2.1	Not Detected	8.5	Not Detected
Trichloroethene	2.1	Not Detected	11	Not Detected
1,2-Dichloropropane	2.1	Not Detected	9.7	Not Detected
1,4-Dioxane	8.4	Not Detected	30	Not Detected
Bromodichloromethane	2.1	Not Detected	14	Not Detected
cis-1,3-Dichloropropene	2.1	Not Detected	9.5	Not Detected
4-Methyl-2-pentanone	2.1	Not Detected	8.6	Not Detected
Toluene	2.1	Not Detected	7.9	Not Detected
trans-1,3-Dichloropropene	2.1	Not Detected	9.5	Not Detected
1,1,2-Trichloroethane	2.1	Not Detected	11	Not Detected
Tetrachloroethene	2.1	22	14	150
2-Hexanone	8.4	Not Detected	34	Not Detected
Dibromochloromethane	2.1	Not Detected	18	Not Detected
1,2-Dibromoethane (EDB)	2.1	Not Detected	16	Not Detected
Chlorobenzene	2.1	Not Detected	9.7	Not Detected
Ethyl Benzene	2.1	Not Detected	9.1	Not Detected
m,p-Xylene	2.1	Not Detected	9.1	Not Detected
o-Xylene	2.1	Not Detected	9.1	Not Detected

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Client Sample ID: OC_SVE_VMP-20_091718

Lab ID#: 1809379R1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092522**	**Date of Collection:**	**9/17/18 11:07:00 AM**
Dil. Factor:	**4.20**	**Date of Analysis:**	**9/26/18 08:32 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	2.1	Not Detected	8.9	Not Detected
Bromoform	2.1	Not Detected	22	Not Detected
1,1,2,2-Tetrachloroethane	2.1	Not Detected	14	Not Detected
4-Ethyltoluene	2.1	Not Detected	10	Not Detected
1,3,5-Trimethylbenzene	2.1	Not Detected	10	Not Detected
1,2,4-Trimethylbenzene	2.1	Not Detected	10	Not Detected
1,3-Dichlorobenzene	2.1	Not Detected	13	Not Detected
1,4-Dichlorobenzene	2.1	Not Detected	13	Not Detected
alpha-Chlorotoluene	2.1	Not Detected	11	Not Detected
1,2-Dichlorobenzene	2.1	Not Detected	13	Not Detected
1,2,4-Trichlorobenzene	8.4	Not Detected	62	Not Detected
Hexachlorobutadiene	8.4	Not Detected	90	Not Detected
1,1-Difluoroethane	8.4	Not Detected	23	Not Detected
Vinyl Acetate	8.4	Not Detected	30	Not Detected
TNMOC ref. to Heptane (MW=100)	42	120	170	490

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	88	70-130

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Client Sample ID: OC_SVE_VMP-26_091718

Lab ID#: 1809379R1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092515**	**Date of Collection:**	**9/17/18 11:57:00 AM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 08:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	82	29	190
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	7.3	15	23
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	340
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	16	8.3	110
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-26_091718

Lab ID#: 1809379R1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092515**	**Date of Collection:**	**9/17/18 11:57:00 AM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 08:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	160	100	650

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-94-24_091818

Lab ID#: 1809379R1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092410**	**Date of Collection:**	**9/18/18 6:58:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 03:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	34	28	80
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	110	14	320
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	13	8.1	87
2-Hexanone	4.8	5.8	19	24
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-94-24_091818

Lab ID#: 1809379R1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092410**	**Date of Collection:**	**9/18/18 6:58:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 03:31 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	140	97	570

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-94-24_091818K

Lab ID#: 1809379R1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092411**	**Date of Collection:**	**9/18/18 7:05:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**9/24/18 03:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	25	28	60
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	82	14	240
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	9.3	7.9	63
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-94-24_091818K

Lab ID#: 1809379R1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092411**	**Date of Collection:**	**9/18/18 7:05:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**9/24/18 03:57 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	100	95	410

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-94-60_091818

Lab ID#: 1809379R1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092412**	**Date of Collection:**	**9/18/18 7:14:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**9/24/18 04:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	23	28	56
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	48	14	140
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	8.4	7.9	57
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-94-60_091818

Lab ID#: 1809379R1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092412**	**Date of Collection:**	**9/18/18 7:14:00 AM**
Dil. Factor:	**2.32**	**Date of Analysis:**	**9/24/18 04:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	56	95	230

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-43-24_091818

Lab ID#: 1809379R1-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092413**	**Date of Collection:**	**9/18/18 7:23:00 AM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**9/24/18 04:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	30	28	71
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	14	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	43	14	130
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	6.6	7.9	45
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-43-24_091818

Lab ID#: 1809379R1-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092413**	**Date of Collection:**	**9/18/18 7:23:00 AM**
Dil. Factor:	**2.34**	**Date of Analysis:**	**9/24/18 04:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	58	96	240

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-95-61_091818

Lab ID#: 1809379R1-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092414**	**Date of Collection:**	**9/18/18 7:43:00 AM**
Dil. Factor:	**2.26**	**Date of Analysis:**	**9/24/18 05:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.6	Not Detected
Freon 114	1.1	Not Detected	7.9	Not Detected
Chloromethane	11	Not Detected	23	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.3	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	16	27	39
2-Propanol	4.5	Not Detected	11	Not Detected
Carbon Disulfide	4.5	Not Detected	14	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	39	Not Detected
Methyl tert-butyl ether	4.5	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.5	26	13	76
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.1	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.6	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	4.5	7.7	31
2-Hexanone	4.5	Not Detected	18	Not Detected
Dibromochloromethane	1.1	Not Detected	9.6	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.7	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-95-61_091818

Lab ID#: 1809379R1-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092414**	**Date of Collection:**	**9/18/18 7:43:00 AM**
Dil. Factor:	**2.26**	**Date of Analysis:**	**9/24/18 05:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.8	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.8	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.8	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	34	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
1,1-Difluoroethane	4.5	Not Detected	12	Not Detected
Vinyl Acetate	4.5	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	52	92	210

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-32-24_091818

Lab ID#: 1809379R1-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092415**	**Date of Collection:**	**9/18/18 9:28:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/24/18 05:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Chloromethane	11	Not Detected	24	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	11	Not Detected	44	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
Freon 113	1.1	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Acetone	11	31	27	73
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Hexane	1.1	2.1	4.0	7.5
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	47	14	140
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	1.4	3.6	4.4
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	5.6	7.8	38
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-32-24_091818

Lab ID#: 1809379R1-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092415**	**Date of Collection:**	**9/18/18 9:28:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**9/24/18 05:43 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.1	Not Detected	4.9	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	100	94	410

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-32-24_091818K

Lab ID#: 1809379R1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092416**	**Date of Collection:**	**9/18/18 9:22:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 06:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	64	28	150
2-Propanol	4.8	6.7	12	16
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	57	14	170
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	1.3	4.5	5.0
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	8.1	8.1	55
2-Hexanone	4.8	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-32-24_091818K

Lab ID#: 1809379R1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092416**	**Date of Collection:**	**9/18/18 9:22:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 06:10 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	250	97	1000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-32-60_091818

Lab ID#: 1809379R1-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092417**	**Date of Collection:**	**9/18/18 9:36:00 AM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**9/24/18 06:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	37	29	88
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	56	14	170
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	1.5	6.5	8.1
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	5.3	8.2	36
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-32-60_091818

Lab ID#: 1809379R1-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092417**	**Date of Collection:**	**9/18/18 9:36:00 AM**
Dil. Factor:	**2.41**	**Date of Analysis:**	**9/24/18 06:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	160	98	650

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: OC_SVE_VMP-31-24_091818

Lab ID#: 1809379R1-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092418**	**Date of Collection:**	**9/18/18 9:53:00 AM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/24/18 07:03 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	36	28	86
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	68	14	200
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	6.1	8.1	42
2-Hexanone	4.8	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

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Client Sample ID: OC_SVE_VMP-31-24_091818

Lab ID#: 1809379R1-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092418**	**Date of Collection:**	**9/18/18 9:53:00 AM**
Dil. Factor:	**2.40**	**Date of Analysis:**	**9/24/18 07:03 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	150	98	610

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-22_091818

Lab ID#: 1809379R1-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092421**	**Date of Collection:**	**9/18/18 10:49:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 10:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Acetone	12	78	28	180
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	150	14	430
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	14	8.1	96
2-Hexanone	4.8	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-22_091818

Lab ID#: 1809379R1-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092421**	**Date of Collection:**	**9/18/18 10:49:00 AM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**9/24/18 10:13 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.1	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	120	97	490

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-5_091818

Lab ID#: 1809379R1-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092422**	**Date of Collection:**	**9/18/18 10:58:00 AM**
Dil. Factor:	**2.35**	**Date of Analysis:**	**9/24/18 10:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	82	28	200
2-Propanol	4.7	Not Detected	12	Not Detected
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	120	14	340
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	8.9	8.0	61
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-5_091818

Lab ID#: 1809379R1-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092422**	**Date of Collection:**	**9/18/18 10:58:00 AM**
Dil. Factor:	**2.35**	**Date of Analysis:**	**9/24/18 10:39 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	24	130	96	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-16_091818

Lab ID#: 1809379R1-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092423**	**Date of Collection:**	**9/18/18 11:31:00 AM**
Dil. Factor:	**2.35**	**Date of Analysis:**	**9/24/18 11:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	150	28	370
2-Propanol	4.7	16	12	39
Carbon Disulfide	4.7	Not Detected	15	Not Detected
3-Chloropropene	4.7	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.7	100	14	310
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.9	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	35	8.0	240
2-Hexanone	4.7	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected

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Client Sample ID: OC_SVE_VMP-16_091818

Lab ID#: 1809379R1-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092423**	**Date of Collection:**	**9/18/18 11:31:00 AM**
Dil. Factor:	**2.35**	**Date of Analysis:**	**9/24/18 11:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.0	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.1	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.1	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
1,1-Difluoroethane	4.7	Not Detected	13	Not Detected
Vinyl Acetate	4.7	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	24	170	96	700

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: OC_SVE_VMP-17_091818

Lab ID#: 1809379R1-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092424**	**Date of Collection:**	**9/18/18 11:54:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/24/18 11:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.0	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	2.9	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	94	27	220
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	16	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	120	14	340
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.3	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	8.2	7.8	55
2-Hexanone	4.6	Not Detected	19	Not Detected
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.8	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

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Client Sample ID: OC_SVE_VMP-17_091818

Lab ID#: 1809379R1-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092424**	**Date of Collection:**	**9/18/18 11:54:00 AM**
Dil. Factor:	**2.30**	**Date of Analysis:**	**9/24/18 11:32 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	130	94	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-15_091818

Lab ID#: 1809379R1-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092425**	**Date of Collection:**	**9/18/18 12:02:00 PM**
Dil. Factor:	**2.31**	**Date of Analysis:**	**9/24/18 11:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.7	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Acetone	12	130	27	310
2-Propanol	4.6	Not Detected	11	Not Detected
Carbon Disulfide	4.6	Not Detected	14	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
Methyl tert-butyl ether	4.6	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.6	200	14	590
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.3	Not Detected
1,4-Dioxane	4.6	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	7.7	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Tetrachloroethene	1.2	3.5	7.8	24
2-Hexanone	4.6	14	19	55
Dibromochloromethane	1.2	Not Detected	9.8	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	8.9	Not Detected
Chlorobenzene	1.2	Not Detected	5.3	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected

eurofins | Air Toxics

Client Sample ID: OC_SVE_VMP-15_091818

Lab ID#: 1809379R1-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092425**	**Date of Collection:**	**9/18/18 12:02:00 PM**
Dil. Factor:	**2.31**	**Date of Analysis:**	**9/24/18 11:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	4.9	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	7.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	6.9	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
1,1-Difluoroethane	4.6	Not Detected	12	Not Detected
Vinyl Acetate	4.6	Not Detected	16	Not Detected
TNMOC ref. to Heptane (MW=100)	23	190	94	780

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-12_091818

Lab ID#: 1809379R1-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092426**	**Date of Collection:**	**9/18/18 12:28:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/25/18 12:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	150	29	360
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected	17	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	48	4.3	170
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	600 E	14	1800 E
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	6.3	3.9	20
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	11	4.6	41
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	11	8.2	74
2-Hexanone	4.8	9.1	20	37
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	2.5	5.2	11
m,p-Xylene	1.2	9.5	5.2	41
o-Xylene	1.2	3.1	5.2	13

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Client Sample ID: OC_SVE_VMP-12_091818

Lab ID#: 1809379R1-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092426**	**Date of Collection:**	**9/18/18 12:28:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**9/25/18 12:25 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	1.9	5.2	7.9
Bromoform	1.2	Not Detected	12	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
1,1-Difluoroethane	4.8	Not Detected	13	Not Detected
Vinyl Acetate	4.8	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	24	780	99	3200

E = Exceeds instrument calibration range.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	106	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: OC_SVE_VMP-11_091818

Lab ID#: 1809379R1-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092427**	**Date of Collection:**	**9/18/18 12:37:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 12:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	160	29	390
2-Propanol	4.9	5.7	12	14
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	1.6	4.3	5.8
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	200	14	600
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	6.5	8.3	44
2-Hexanone	4.9	11	20	46
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VMP-11_091818

Lab ID#: 1809379R1-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092427**	**Date of Collection:**	**9/18/18 12:37:00 PM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/25/18 12:51 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	390	100	1600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: OC_SVE_VMP-92-68.5_091818

Lab ID#: 1809379R1-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092431**	**Date of Collection:**	**9/18/18 12:45:00 PM**
Dil. Factor:	**6.74**	**Date of Analysis:**	**9/25/18 08:59 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.4	Not Detected	17	Not Detected
Freon 114	3.4	Not Detected	24	Not Detected
Chloromethane	34	Not Detected	70	Not Detected
Vinyl Chloride	3.4	Not Detected	8.6	Not Detected
Bromomethane	34	Not Detected	130	Not Detected
Chloroethane	13	Not Detected	36	Not Detected
Freon 11	3.4	62	19	350
Freon 113	3.4	160	26	1200
1,1-Dichloroethene	3.4	430	13	1700
Acetone	34	130	80	310
2-Propanol	13	Not Detected	33	Not Detected
Carbon Disulfide	13	Not Detected	42	Not Detected
3-Chloropropene	13	Not Detected	42	Not Detected
Methylene Chloride	34	Not Detected	120	Not Detected
Methyl tert-butyl ether	13	Not Detected	48	Not Detected
trans-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Hexane	3.4	Not Detected	12	Not Detected
1,1-Dichloroethane	3.4	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	13	230	40	680
cis-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Chloroform	3.4	4.2	16	20
1,1,1-Trichloroethane	3.4	Not Detected	18	Not Detected
Carbon Tetrachloride	3.4	Not Detected	21	Not Detected
Benzene	3.4	Not Detected	11	Not Detected
1,2-Dichloroethane	3.4	Not Detected	14	Not Detected
Trichloroethene	3.4	54	18	290
1,2-Dichloropropane	3.4	Not Detected	16	Not Detected
1,4-Dioxane	13	Not Detected	48	Not Detected
Bromodichloromethane	3.4	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.4	Not Detected	14	Not Detected
Toluene	3.4	Not Detected	13	Not Detected
trans-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.4	Not Detected	18	Not Detected
Tetrachloroethene	3.4	770	23	5200
2-Hexanone	13	Not Detected	55	Not Detected
Dibromochloromethane	3.4	Not Detected	29	Not Detected
1,2-Dibromoethane (EDB)	3.4	Not Detected	26	Not Detected
Chlorobenzene	3.4	Not Detected	16	Not Detected
Ethyl Benzene	3.4	Not Detected	15	Not Detected
m,p-Xylene	3.4	Not Detected	15	Not Detected
o-Xylene	3.4	Not Detected	15	Not Detected

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Client Sample ID: OC_SVE_VMP-92-68.5_091818

Lab ID#: 1809379R1-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092431**	**Date of Collection:**	**9/18/18 12:45:00 PM**
Dil. Factor:	**6.74**	**Date of Analysis:**	**9/25/18 08:59 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	3.4	Not Detected	14	Not Detected
Bromoform	3.4	Not Detected	35	Not Detected
1,1,2,2-Tetrachloroethane	3.4	Not Detected	23	Not Detected
4-Ethyltoluene	3.4	Not Detected	16	Not Detected
1,3,5-Trimethylbenzene	3.4	Not Detected	16	Not Detected
1,2,4-Trimethylbenzene	3.4	Not Detected	16	Not Detected
1,3-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.4	Not Detected	20	Not Detected
alpha-Chlorotoluene	3.4	Not Detected	17	Not Detected
1,2-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	13	Not Detected	100	Not Detected
Hexachlorobutadiene	13	Not Detected	140	Not Detected
1,1-Difluoroethane	13	Not Detected	36	Not Detected
Vinyl Acetate	13	Not Detected	47	Not Detected
TNMOC ref. to Heptane (MW=100)	67	2100	280	8600

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: OC_SVE_VMP-93-60_091918

Lab ID#: 1809379R1-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092516**	**Date of Collection:**	**9/19/18 9:32:00 AM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**9/25/18 08:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	26	Not Detected
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	36	29	86
2-Propanol	4.9	Not Detected	12	Not Detected
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	360
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.8	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	2.0	6.6	11
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.3	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	29	8.4	200
2-Hexanone	4.9	7.8	20	32
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.5	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.4	Not Detected
m,p-Xylene	1.2	Not Detected	5.4	Not Detected
o-Xylene	1.2	Not Detected	5.4	Not Detected

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Client Sample ID: OC_SVE_VMP-93-60_091918

Lab ID#: 1809379R1-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092516**	**Date of Collection:**	**9/19/18 9:32:00 AM**
Dil. Factor:	**2.47**	**Date of Analysis:**	**9/25/18 08:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.3	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.5	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.1	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.1	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	37	Not Detected
Hexachlorobutadiene	4.9	Not Detected	53	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	220	100	900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: OC_SVE_VMP-93-60_091918K

Lab ID#: 1809379R1-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092517**	**Date of Collection:**	**9/19/18 9:41:00 AM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**9/25/18 09:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.2	Not Detected
Freon 114	1.3	Not Detected	8.8	Not Detected
Chloromethane	13	Not Detected	26	Not Detected
Vinyl Chloride	1.3	Not Detected	3.2	Not Detected
Bromomethane	13	Not Detected	49	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
Freon 11	1.3	Not Detected	7.1	Not Detected
Freon 113	1.3	Not Detected	9.6	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Acetone	13	39	30	92
2-Propanol	5.0	Not Detected	12	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	5.0	Not Detected	16	Not Detected
Methylene Chloride	13	Not Detected	44	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Hexane	1.3	Not Detected	4.4	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.0	110	15	330
cis-1,2-Dichloroethene	1.3	Not Detected	5.0	Not Detected
Chloroform	1.3	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Carbon Tetrachloride	1.3	Not Detected	7.9	Not Detected
Benzene	1.3	Not Detected	4.0	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.1	Not Detected
Trichloroethene	1.3	2.5	6.8	14
1,2-Dichloropropane	1.3	Not Detected	5.8	Not Detected
1,4-Dioxane	5.0	Not Detected	18	Not Detected
Bromodichloromethane	1.3	Not Detected	8.4	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
4-Methyl-2-pentanone	1.3	Not Detected	5.2	Not Detected
Toluene	1.3	Not Detected	4.7	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	5.7	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	6.9	Not Detected
Tetrachloroethene	1.3	27	8.5	180
2-Hexanone	5.0	6.0	21	24
Dibromochloromethane	1.3	Not Detected	11	Not Detected
1,2-Dibromoethane (EDB)	1.3	Not Detected	9.7	Not Detected
Chlorobenzene	1.3	Not Detected	5.8	Not Detected
Ethyl Benzene	1.3	Not Detected	5.5	Not Detected
m,p-Xylene	1.3	Not Detected	5.5	Not Detected
o-Xylene	1.3	Not Detected	5.5	Not Detected

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Client Sample ID: OC_SVE_VMP-93-60_091918K

Lab ID#: 1809379R1-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092517**	**Date of Collection:**	**9/19/18 9:41:00 AM**
Dil. Factor:	**2.52**	**Date of Analysis:**	**9/25/18 09:23 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.3	Not Detected	5.4	Not Detected
Bromoform	1.3	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	8.6	Not Detected
4-Ethyltoluene	1.3	1.9	6.2	9.4
1,3,5-Trimethylbenzene	1.3	Not Detected	6.2	Not Detected
1,2,4-Trimethylbenzene	1.3	3.5	6.2	17
1,3-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.5	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	7.6	Not Detected
1,2,4-Trichlorobenzene	5.0	Not Detected	37	Not Detected
Hexachlorobutadiene	5.0	Not Detected	54	Not Detected
1,1-Difluoroethane	5.0	Not Detected	14	Not Detected
Vinyl Acetate	5.0	Not Detected	18	Not Detected
TNMOC ref. to Heptane (MW=100)	25	340	100	1400

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	91	70-130

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Client Sample ID: OC_SVE_VMP-31-24_091818K

Lab ID#: 1809379R1-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092420**	**Date of Collection:**	**9/18/18 10:00:00 AM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/24/18 09:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.1	Not Detected
Freon 114	1.2	Not Detected	8.6	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	12	Not Detected	48	Not Detected
Chloroethane	4.9	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.9	Not Detected
Freon 113	1.2	Not Detected	9.4	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Acetone	12	100	29	240
2-Propanol	4.9	6.7	12	16
Carbon Disulfide	4.9	Not Detected	15	Not Detected
3-Chloropropene	4.9	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	43	Not Detected
Methyl tert-butyl ether	4.9	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.9	120	14	340
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.7	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	5.0	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.7	Not Detected
1,4-Dioxane	4.9	Not Detected	18	Not Detected
Bromodichloromethane	1.2	Not Detected	8.2	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.7	Not Detected
Tetrachloroethene	1.2	8.2	8.3	55
2-Hexanone	4.9	Not Detected	20	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.4	Not Detected
Chlorobenzene	1.2	Not Detected	5.7	Not Detected
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected

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Client Sample ID: OC_SVE_VMP-31-24_091818K

Lab ID#: 1809379R1-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092420**	**Date of Collection:**	**9/18/18 10:00:00 AM**
Dil. Factor:	**2.46**	**Date of Analysis:**	**9/24/18 09:47 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	13	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.4	Not Detected
4-Ethyltoluene	1.2	Not Detected	6.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.4	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.4	Not Detected
1,2,4-Trichlorobenzene	4.9	Not Detected	36	Not Detected
Hexachlorobutadiene	4.9	Not Detected	52	Not Detected
1,1-Difluoroethane	4.9	Not Detected	13	Not Detected
Vinyl Acetate	4.9	Not Detected	17	Not Detected
TNMOC ref. to Heptane (MW=100)	25	120	100	490

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 12:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 12:32 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 02:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 02:03 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1809379R1-28C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092506a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:34 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
1,1-Difluoroethane	2.0	Not Detected	5.4	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected
TNMOC ref. to Heptane (MW=100)	10	Not Detected	41	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	90	70-130

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Client Sample ID: CCV

Lab ID#: 1809379R1-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092402**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 10:15 AM**

Compound	%Recovery
Freon 12	102
Freon 114	97
Chloromethane	124
Vinyl Chloride	112
Bromomethane	110
Chloroethane	120
Freon 11	101
Freon 113	98
1,1-Dichloroethene	106
Acetone	125
2-Propanol	124
Carbon Disulfide	107
3-Chloropropene	110
Methylene Chloride	116
Methyl tert-butyl ether	107
trans-1,2-Dichloroethene	108
Hexane	115
1,1-Dichloroethane	113
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	109
Chloroform	108
1,1,1-Trichloroethane	102
Carbon Tetrachloride	102
Benzene	104
1,2-Dichloroethane	110
Trichloroethene	103
1,2-Dichloropropane	105
1,4-Dioxane	103
Bromodichloromethane	105
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	104
Toluene	97
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	105
Tetrachloroethene	101
2-Hexanone	107
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	104
Chlorobenzene	99
Ethyl Benzene	99
m,p-Xylene	102
o-Xylene	106

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Client Sample ID: CCV

Lab ID#: 1809379R1-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 10:15 AM**	

Compound	**%Recovery**
Styrene	98
Bromoform	108
1,1,2,2-Tetrachloroethane	99
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	99
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	93
Hexachlorobutadiene	95
1,1-Difluoroethane	93
Vinyl Acetate	116
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1809379R1-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:44 AM**

Compound	%Recovery
Freon 12	105
Freon 114	101
Chloromethane	127
Vinyl Chloride	114
Bromomethane	109
Chloroethane	122
Freon 11	102
Freon 113	101
1,1-Dichloroethene	109
Acetone	124
2-Propanol	124
Carbon Disulfide	110
3-Chloropropene	114
Methylene Chloride	120
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	109
Hexane	117
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	110
Chloroform	108
1,1,1-Trichloroethane	104
Carbon Tetrachloride	105
Benzene	107
1,2-Dichloroethane	113
Trichloroethene	104
1,2-Dichloropropane	109
1,4-Dioxane	108
Bromodichloromethane	108
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	109
Toluene	98
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	106
Tetrachloroethene	104
2-Hexanone	109
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	106
Chlorobenzene	101
Ethyl Benzene	102
m,p-Xylene	106
o-Xylene	108

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Client Sample ID: CCV

Lab ID#: 1809379R1-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:44 AM**	

Compound	**%Recovery**
Styrene	100
Bromoform	109
1,1,2,2-Tetrachloroethane	101
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	102
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	108
1,2-Dichlorobenzene	100
1,2,4-Trichlorobenzene	95
Hexachlorobutadiene	97
1,1-Difluoroethane	95
Vinyl Acetate	121
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: CCV

Lab ID#: 1809379R1-29C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 10:25 AM**

Compound	%Recovery
Freon 12	94
Freon 114	98
Chloromethane	96
Vinyl Chloride	101
Bromomethane	103
Chloroethane	102
Freon 11	92
Freon 113	93
1,1-Dichloroethene	94
Acetone	93
2-Propanol	83
Carbon Disulfide	102
3-Chloropropene	100
Methylene Chloride	95
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	96
Hexane	94
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	97
Chloroform	105
1,1,1-Trichloroethane	99
Carbon Tetrachloride	97
Benzene	110
1,2-Dichloroethane	102
Trichloroethene	109
1,2-Dichloropropane	108
1,4-Dioxane	97
Bromodichloromethane	109
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	96
Toluene	109
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	108
Tetrachloroethene	99
2-Hexanone	96
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	104
Chlorobenzene	102
Ethyl Benzene	101
m,p-Xylene	101
o-Xylene	98

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Client Sample ID: CCV

Lab ID#: 1809379R1-29C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 10:25 AM**	

Compound	**%Recovery**
Styrene	99
Bromoform	99
1,1,2,2-Tetrachloroethane	108
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	83
1,1-Difluoroethane	109
Vinyl Acetate	101
TNMOC ref. to Heptane (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: LCS

Lab ID#: 1809379R1-30A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 10:52 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	99	70-130
Chloromethane	122	70-130
Vinyl Chloride	117	70-130
Bromomethane	108	70-130
Chloroethane	121	70-130
Freon 11	100	70-130
Freon 113	98	70-130
1,1-Dichloroethene	106	70-130
Acetone	122	70-130
2-Propanol	121	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	114	70-130
Methylene Chloride	117	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	118	70-130
Hexane	117	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	111	70-130
cis-1,2-Dichloroethene	102	70-130
Chloroform	107	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	104	70-130
Benzene	105	70-130
1,2-Dichloroethane	111	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	115	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	106	70-130
Tetrachloroethene	101	70-130
2-Hexanone	110	70-130
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	102	70-130
o-Xylene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1809379R1-30A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 10:52 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	102	70-130
Bromoform	110	70-130
1,1,2,2-Tetrachloroethane	97	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	99	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	80	70-130
Hexachlorobutadiene	81	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	111	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	101	70-130

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Client Sample ID: LCSD

Lab ID#: 1809379R1-30AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 11:17 AM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	98	70-130
Chloromethane	119	70-130
Vinyl Chloride	114	70-130
Bromomethane	109	70-130
Chloroethane	116	70-130
Freon 11	100	70-130
Freon 113	97	70-130
1,1-Dichloroethene	105	70-130
Acetone	119	70-130
2-Propanol	120	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	114	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	117	70-130
Hexane	115	70-130
1,1-Dichloroethane	110	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	98	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	101	70-130
Carbon Tetrachloride	103	70-130
Benzene	102	70-130
1,2-Dichloroethane	109	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	103	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	107	70-130
Tetrachloroethene	101	70-130
2-Hexanone	109	70-130
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	105	70-130
o-Xylene	107	70-130

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Client Sample ID: LCSD

Lab ID#: 1809379R1-30AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/18 11:17 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	103	70-130
Bromoform	112	70-130
1,1,2,2-Tetrachloroethane	98	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	87	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	112	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCS

Lab ID#: 1809379R1-30B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:22 PM**	

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	99	70-130
Chloromethane	124	70-130
Vinyl Chloride	116	70-130
Bromomethane	108	70-130
Chloroethane	116	70-130
Freon 11	100	70-130
Freon 113	97	70-130
1,1-Dichloroethene	107	70-130
Acetone	117	70-130
2-Propanol	120	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	115	70-130
Methylene Chloride	116	70-130
Methyl tert-butyl ether	105	70-130
trans-1,2-Dichloroethene	115	70-130
Hexane	115	70-130
1,1-Dichloroethane	109	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	100	70-130
Chloroform	104	70-130
1,1,1-Trichloroethane	100	70-130
Carbon Tetrachloride	103	70-130
Benzene	105	70-130
1,2-Dichloroethane	109	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	107	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	112	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	99	70-130
2-Hexanone	103	70-130
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	101	70-130
o-Xylene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1809379R1-30B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:22 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	99	70-130
Bromoform	108	70-130
1,1,2,2-Tetrachloroethane	95	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	79	70-130
Hexachlorobutadiene	80	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	113	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1809379R1-30BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:47 PM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	101	70-130
Chloromethane	127	70-130
Vinyl Chloride	118	70-130
Bromomethane	113	70-130
Chloroethane	123	70-130
Freon 11	105	70-130
Freon 113	101	70-130
1,1-Dichloroethene	110	70-130
Acetone	119	70-130
2-Propanol	125	70-130
Carbon Disulfide	112	70-130
3-Chloropropene	118	70-130
Methylene Chloride	119	70-130
Methyl tert-butyl ether	109	70-130
trans-1,2-Dichloroethene	123	70-130
Hexane	118	70-130
1,1-Dichloroethane	114	70-130
2-Butanone (Methyl Ethyl Ketone)	115	70-130
cis-1,2-Dichloroethene	103	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	106	70-130
Carbon Tetrachloride	106	70-130
Benzene	104	70-130
1,2-Dichloroethane	111	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	107	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	102	70-130
2-Hexanone	109	70-130
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	106	70-130
o-Xylene	109	70-130

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Client Sample ID: LCSD

Lab ID#: 1809379R1-30BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**a092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 12:47 PM**	

Compound	**%Recovery**	**Method Limits**
Styrene	103	70-130
Bromoform	113	70-130
1,1,2,2-Tetrachloroethane	99	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	87	70-130
Hexachlorobutadiene	88	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	110	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1809379R1-30C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:02 AM**	

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	100	70-130
Chloromethane	109	70-130
Vinyl Chloride	107	70-130
Bromomethane	106	70-130
Chloroethane	108	70-130
Freon 11	93	70-130
Freon 113	94	70-130
1,1-Dichloroethene	96	70-130
Acetone	94	70-130
2-Propanol	85	70-130
Carbon Disulfide	106	70-130
3-Chloropropene	105	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	107	70-130
Hexane	96	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	105	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	105	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	100	70-130
Benzene	108	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	112	70-130
1,2-Dichloropropane	108	70-130
1,4-Dioxane	99	70-130
Bromodichloromethane	111	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	109	70-130
Tetrachloroethene	99	70-130
2-Hexanone	102	70-130
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1809379R1-30C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:02 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	102	70-130
Bromoform	104	70-130
1,1,2,2-Tetrachloroethane	109	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	86	70-130
Hexachlorobutadiene	87	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	96	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	94	70-130

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Client Sample ID: LCSD

Lab ID#: 1809379R1-30CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:29 AM**	

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	99	70-130
Chloromethane	106	70-130
Vinyl Chloride	105	70-130
Bromomethane	106	70-130
Chloroethane	106	70-130
Freon 11	92	70-130
Freon 113	92	70-130
1,1-Dichloroethene	95	70-130
Acetone	93	70-130
2-Propanol	84	70-130
Carbon Disulfide	104	70-130
3-Chloropropene	103	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	97	70-130
1,1-Dichloroethane	101	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	106	70-130
1,1,1-Trichloroethane	102	70-130
Carbon Tetrachloride	99	70-130
Benzene	109	70-130
1,2-Dichloroethane	100	70-130
Trichloroethene	113	70-130
1,2-Dichloropropane	109	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	115	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	108	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	100	70-130
2-Hexanone	104	70-130
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1809379R1-30CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**17092504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/25/18 11:29 AM**	

Compound	**%Recovery**	**Method Limits**
Styrene	103	70-130
Bromoform	106	70-130
1,1,2,2-Tetrachloroethane	110	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	115	70-130
1,2-Dichlorobenzene	103	70-130
1,2,4-Trichlorobenzene	94	70-130
Hexachlorobutadiene	96	70-130
1,1-Difluoroethane	Not Spiked	
Vinyl Acetate	97	60-140
TNMOC ref. to Heptane (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	94	70-130

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 1 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SAMPLER(S) (NAME / SIGNATURE): Khalid Azhar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
1	OC_SVE_VMP-24_091718	VMP-24-30'	SV	1L2749	1 L	23403	9/17/2018	1312	-30	9/17/2018	1319	-5	X				
2	OC_SVE_VMP-21_091718	VMP-21-30'	SV	1L2793	1 L	23294	9/17/2018	1135	-30	9/17/2018	1142	-5	X				
3	OC_SVE_VMP-18_091718	VMP-18-30'	SV	20781	1 L	23322	9/17/2018	1004	-30	9/17/2018	1009	-5	X				
4	OC_SVE_VMP-27_091718	VMP-27-30'	SV	5526	1 L	23135	9/17/2018	1211	-30	9/17/2018	1216	-5	X				
5	OC_SVE_VMP-20_091718	VMP-20-30'	SV	1L2939	1 L	23513	9/17/2018	1101	-30	9/17/2018	1107	-5	X				
6	OC_SVE_VMP-26_091718	VMP-26-30'	SV	1L2544	1 L	23526	9/17/2018	1151	-30	9/17/2018	1157	-4.5	X				
7	OC_SVE_VMP-94-24_091818	VMP-94-24'	SV	1L2656	1 L	23543	9/18/2018	653	-29	9/18/2018	658	-5	X				
8	OC_SVE_VMP-94-24_091818K	VMP-94-24'	SV	1L1731	1 L	23425	9/18/2018	700	-30	9/18/2018	705	-5	X				
9	OC_SVE_VMP-94-60_091818	VMP94-60'	SV	1L1932	1 L	23308	9/18/2018	709	-29	9/18/2018	714	-5	X				
10	OC_SVE_VMP-43-24_091818	VMP-43-24'	SV	1L3828	1 L	24259	9/18/2018	718	-30	9/18/2018	723	-5	X				
11	OC_SVE_VMP-95-61_091818	VMP-95-61'	SV	1L2645	1 L	23713	9/18/2018	738	-28	9/18/2018	743	-5	X				
12	OC_SVE_VMP-32-24_091818	VMP-32-24'	SV	1L2909	1 L	23102	9/18/2018	922	-30	9/18/2018	928	-5	X				
13	OC_SVE_VMP-32-24_091818K	VMP-32-24'	SV	1L2657	1 L	23470	9/18/2018	917	-27	9/18/2018	922	-5	X				
14	OC_SVE_VMP-32-60_091818	VMP-32-60'	SV	1L2468	1 L	23498	9/18/2018	931	-30	9/18/2018	936	-5	X				
15	OC_SVE_VMP-31-24_091818	VMP-31-24'	SV	1L1502	1 L	23698	9/18/2018	948	-27	9/18/2018	953	-5	X				
16	OC_SVE_VMP-31-70_091818	VMP31-70'	SV	1L3850	1 L	24213	9/18/2018	1006	-30	9/18/2018	1016	-23.5	X				

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Revised COC 10/1/18 JN

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 2 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
1	OC_SVE_VMP-22_091818	VMP-22-30'	SV	1L3854	1 L	23481	9/18/2018	1044	-30	9/18/2018	1049	-4	X				
2	OC_SVE_VMP-5_091818	VMP-5-30'	SV	1L2398	1 L	23427	9/18/2018	1053	-29	9/18/2018	1058	-5	X				
3	OC_SVE_VMP-16_091818	VMP-16-30'	SV	1L2575	1 L	23364	9/18/2018	1125	-30	9/18/2018	1131	-5	X				
4	OC_SVE_VMP-17_091818	VMP-17-30'	SV	1L2476	1 L	23410	9/18/2018	1148	-30	9/18/2018	1154	-5	X				
5	OC_SVE_VMP-15_091818	VMP-15-30'	SV	1L2448	1 L	23185	9/18/2018	1157	-30	9/18/2018	1202	-5	X				
6	OC_SVE_VMP-12_091818	VMP-12-30'	SV	1L3103	1 L	24243	9/18/2018	1223	-30	9/18/2018	1228	-5	X				
7	OC_SVE_VMP-11_091818	VMP-11-30'	SV	1L2776	1 L	24242	9/18/2018	1232	-30	9/18/2018	1237	-4	X				
8	OC_SVE_VMP-92-68.5_091818	VMP-92-68.5'	SV	1L3188	1 L	23394	9/18/2018	1237	-30	9/18/2018	1245	-5	X				
9	OC_SVE_VMP-93-60_091918	VMP-93-60'	SV	1L2633	1 L	24245	9/19/2018	922	-30	9/19/2018	932	-6	X				
10	OC_SVE_VMP-93-60_091918K	VMP-93-60'	SV	33718	1 L	23419	9/19/2018	933	-29	9/19/2018	941	-5	X				
11	OC_SVE_VMP-31-24_091818K	VMP-31-24'	SV	1L3132	1L	23502	9/18/2018	956	-30	9/18/2018	1000	-5	X				
12																	
13																	
14																	
15																	
16																	

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Revised COC 10/2/18 [illegible]

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL.: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 1 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-24_091718	VMP-24-30'	SV	1L2749	1 L	23403	9/17/2018	1312	-30	9/17/2018	1319	-5	X				
02A	2	OC_SVE_VMP-21_091718	VMP-21-30'	SV	1L2793	1 L	23294	9/17/2018	1135	-30	9/17/2018	1142	-5	X				
03A	3	OC_SVE_VMP-18_091718	VMP-18-30'	SV	20781	1 L	23322	9/17/2018	1004	-30	9/17/2018	1009	-5	X				
04A	4	OC_SVE_VMP-27_091718	VMP-27-30'	SV	5526	1 L	23135	9/17/2018	1211	-30	9/17/2018	1216	-5	X				
05A	5	OC_SVE_VMP-20_091718	VMP-20-30'	SV	1L2939	1 L	23513	9/17/2018	1101	-30	9/17/2018	1107	-5	X				
06A	6	OC_SVE_VMP-26_091718	VMP-26-30'	SV	1L2544	1 L	23526	9/17/2018	1151	-30	9/17/2018	1157	-4.5	X				
07A	7	OC_SVE_VMP-94-24_091818	VMP-94-24'	SV	1L2656	1 L	23543	9/18/2018	653	-29	9/18/2018	658	-5	X				
08A	8	OC_SVE_VMP-94-24_091818K	VMP-94-24'	SV	1L1731	1 L	23425	9/18/2018	700	-30	9/18/2018	705	-5	X				
09A	9	OC_SVE_VMP-94-60_091818	VMP94-60'	SV	1L1932	1 L	23308	9/18/2018	709	-29	9/18/2018	714	-5	X				
10A	10	OC_SVE_VMP-43-24_091818	VMP-43-24'	SV	1L3828	1 L	24259	9/18/2018	718	-30	9/18/2018	723	-5	X				
11A	11	OC_SVE_VMP-95-61_091818	VMP-95-61'	SV	1L2645	1 L	23713	9/18/2018	738	-28	9/18/2018	743	-5	X				
12A	12	OC_SVE_VMP-32-24_091818	VMP-32-24'	SV	1L2909	1 L	23102	9/18/2018	922	-30	9/18/2018	928	-5	X				
13A	13	OC_SVE_VMP-32-24_091818K	VMP-32-24'	SV	1L2657	1 L	23470	9/18/2018	917	-27	9/18/2018	922	-5	X				
14A	14	OC_SVE_VMP-32-60_091818	VMP-32-60'	SV	1L2468	1 L	23498	9/18/2018	931	-30	9/18/2018	936	-5	X				
15A	15	OC_SVE_VMP-31-24_091818	VMP-31-24'	SV	1L1502	1 L	23698	9/18/2018	948	-27	9/18/2018	953	-5	X				
16A	16	OC_SVE_VMP-31-70_091818	VMP31-70'	SV	1L3850	1 L	24213	9/18/2018	1006	-30	9/18/2018	1016	-23.5	X				

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Revised COC Received 09/18/18
2

WO#1809379

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 2 OF 2

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
17A	1	OC_SVE_VMP-22_091818	VMP-22-30'	SV	1L3854	1 L	23481	9/18/2018	1044	-30	9/18/2018	1049	-4	X				
18A	2	OC_SVE_VMP-5_091818	VMP-5-30'	SV	1L2398	1 L	23427	9/18/2018	1053	-29	9/18/2018	1058	-5	X				
19A	3	OC_SVE_VMP-16_091818	VMP-16-30'	SV	1L2675	1 L	23364	9/18/2018	1125	-30	9/18/2018	1131	-5	X				
20A	4	OC_SVE_VMP-17_091818	VMP-17-30'	SV	1L2476	1 L	23410	9/18/2018	1146	-30	9/18/2018	1154	-5	X				
21A	5	OC_SVE_VMP-15_091818	VMP-15-30'	SV	1L2448	1 L	23185	9/18/2018	1157	-30	9/18/2018	1202	-5	X				
22A	6	OC_SVE_VMP-12_091818	VMP-12-30'	SV	1L3103	1 L	24243	9/18/2018	1223	-30	9/18/2018	1228	-5	X				
23A	7	OC_SVE_VMP-11_091818	VMP-11-30'	SV	1L2776	1 L	24242	9/18/2018	1232	-30	9/18/2018	1237	-4	X				
24A	8	OC_SVE_VMP-92-68.5_091818	VMP-92-68.5'	SV	1L3188	1 L	23394	9/18/2018	1237	-30	9/18/2018	1245	-5	X				
25A	9	OC_SVE_VMP-93-60_091918	VMP-93-60'	SV	1L2633	1 L	24245	9/19/2018	922	-30	9/19/2018	932	-6	X				
26A	10	OC_SVE_VMP-93-60_091918K	VMP-93-60'	SV	33718	1 L	23419	9/19/2018	933	-29	9/19/2018	941	-5	X				
27	11																	
9/19/18	12																	
	13																	
	14																	
	15																	
	16																	

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Revised COC Received 9/25/18
JW

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 3 OF 4

LABORATORY CLIENT: de maximis
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CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS
SAMPLER(S): (NAME / SIGNATURE) Khalid Dzhar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☒ EDD
SPECIAL INSTRUCTIONS:
FedEx
Custody Seal Intact? N None Temp NA

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-94-24_091818		SV	1L2656	1 L	23543	9/18/2018	0653	-29	9/18/2018	0658	-5	X				
02A	2	OC_SVE_VMP-94-24_091818 K		SV	1L1731	1 L	23425	9/18/2018	0700	-30	9/18/2018	0705	-5	X				
03A	3	OC_SVE_VMP-94-60_091818		SV	1L1932	1 L	23308	9/18/2018	0709	-29	9/18/2018	0714	-5	X				
04A	4	OC_SVE_VMP-43-24_091818		SV	1L3828	1 L	24259	9/18/2018	0718	-30	9/18/2018	0723	-5	X				
05A	5	OC_SVE_VMP-95-61_091818		SV	1L2645	1 L	23713	9/18/2018	0738	-28	9/18/2018	0743	-5	X				
06A	6	OC_SVE_VMP-32-24_091818	1L2909/23102	SV	~~1L0856~~	KA	~~23782~~	9/18/2018	0922	-30	9/18/2018	0928	-5	X				
07A	7	OC_SVE_VMP-32-24_091818 K		SV	1L2657	1 L	23470	9/18/2018	0917	-27	9/18/2018	0922	-5	X				
08A	8	OC_SVE_VMP-32-60_091818		SV	1L2468	1 L	23498	9/18/2018	0931	-30	9/18/2018	0936	-5	X				
09A	9	OC_SVE_VMP-31-24_091818		SV	1L1502	1 L	23698	9/18/2018	0948	-27	9/18/2018	0953	-5	X				
10A	10	OC_SVE_VMP-31-70_091818	1L3850/24213	SV	~~1L3058~~	KA	~~23413~~	9/18/2018	1006	-30	9/18/2018	1016	-23.5	X				
11A	11	OC_SVE_VMP-31-26_091818 K	KA	SV	1L3132	1 L	23502	9/18/2018	0956	-30	9/18/2018	1000	-5	X				
12A	12	OC_SVE_VMP-22_091818		SV	1L3854	1 L	23481	9/18/2018	1044	-30	9/18/2018	1049	-4	X				
13A	13	OC_SVE_VMP-5_091818		SV	1L2398	1 L	23427	9/18/2018	1053	-29	9/18/2018	1058	-5	X				
14A	14	OC_SVE_VMP-16_091818		SV	1L2675	1 L	23364	9/18/2018	1125	-30	9/18/2018	1131	-5	X				
	15	~~OC_SVE_VMP-17_091818~~		SV	~~1L2355~~	~~1 L~~	~~23693~~	~~9/18/2018~~			~~9/18/2018~~			~~X~~				
15A		OC_SVE_VMP-17_091818		SV	1L2476	1 L	23410	9/18/2018	1148	-30	9/18/2018	1154	-5	X				

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	EATL	9/20/18	0945
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1809379

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/18/18
PAGE: 4 OF 4

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
ADDRESS: 1322 Scott St., Suite 104	PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: San Diego STATE: CA ZIP: 92106	CITY: Whittier STATE: CA ZIP: 90602
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com	PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS	SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) ☐ EDD	
SPECIAL INSTRUCTIONS: Custody Seal Intact? Y N None Temp NA	

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)
16A	1	OC_SVE_VMP- 15 _091818		SV	1L2448	1 L	23188	9/18/2018	1157	-30	9/18/2018	1202	-5	X
17A	2	OC_SVE_VMP- 12 _091818		SV	1L3103	1 L	24243	9/18/2018	1223	-30	9/18/2018	1228	-5	X
18A	3	OC_SVE_VMP- 11 _091818		SV	1L2776	1 L	24242	9/18/2018	1232	-30	9/18/2018	1237	-4	X
19A	4	OC_SVE_VMP-92-68.5 091818		SV	1L3188	1 L	23394	9/18/2018	1237	-30	9/18/2018	1245	-5	X
	5	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	6	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	7	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	8	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	9	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	10	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	11	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	12	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	13	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	14	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
	15	OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X
		OC_SVE_VMP- _091818		SV		1 L		9/18/2018			9/18/2018			X

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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/19/18
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
ADDRESS: 1322 Scott St., Suite 104	PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: San Diego STATE: CA ZIP: 92106	CITY: Whittier STATE: CA ZIP: 90602
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com	PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS	SAMPLER(S): (NAME / SIGNATURE) Khalid Achar
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD	
SPECIAL INSTRUCTIONS: Custody Seal Intact? Y N None Temp N/A	

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)		Initial		Final
01A	1	OC_SVE_VMP-93-60_091918		SV	1L2433	1 L	24245	9/19/2018	0922	-30	9/19/2018	0932	-6	X		5.5 hg		15 psi
02A	2	OC_SVE_VMP-93-60_091918K		SV	33718	1 L	23419	9/19/2018	0933	-29	9/19/2018	0941	-5	X		60 hg		15 psi
	3																	
	4																	
	5																	
	6																	
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	13																	
	14																	
	15																	

Pressurized by: OB
Date: 09/22/18
Nitrogen / Helium

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Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 1 OF 4

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: ☐☐-☐☐☐☐

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS
SAMPLER(S): (NAME / SIGNATURE) Khalid Asher
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☒ EDD
SPECIAL INSTRUCTIONS: Fedex
Custody Seal Intact?
Y N ~~None~~ Temp NA

REQUESTED ANALYSES

	LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	TO-15 (TAL 2.4)				
01A	1	OC_SVE_VMP-40-24_091718		SV	1L2625	1 L	23262	9/17/2018	1436	-30	9/17/2018	1441	-5	X				
02A	2	OC_SVE_VMP-40-12_091718		SV	1L3172	1 L	24290	9/17/2018	1426	-29	9/17/2018	1432	-5	X				
03A	3	OC_SVE_VMP-25_091718		SV	1L3893	1 L	23310	9/17/2018	1545	-30	9/17/2018	1550	-5	X				
04A	4	OC_SVE_VMP-41-55_091718		SV	1L1799	1 L	23218	9/17/2018	1356	-28	9/17/2018	1401	-5	X				
05A	5	OC_SVE_VMP-24_091718		SV	1L2749	1 L	23403	9/17/2018	1312	-30	9/17/2018	1319	-5	X				
06A	6	OC_SVE_VMP-40-55_091718		SV	1L1687	1 L	23491	9/17/2018	1445	-30	9/17/2018	1451	-5	X				
07A	7	OC_SVE_VMP-23_091718		SV	1L3144	1 L	23520	9/17/2018	1530	-30	9/17/2018	1535	-4	X				
08A	8	OC_SVE_VMP-40-6_091718		SV	1L2306	1 L	23355	9/17/2018	1417	-30	9/17/2018	1422	-5	X				
09A	9	OC_SVE_VMP-41-6_091718		SV	1L2709	1 L	24205	9/17/2018	1322	-30	9/17/2018	1327	-5	X				
10A	10	OC_SVE_VMP-41-24_091718		SV	1L3865	1 L	23293	9/17/2018	1343	-30	9/17/2018	1347	-4	X				
11A	11	OC_SVE_VMP-39-24_091718		SV	1L2326	1 L	24318	9/17/2018	0810	-30	9/17/2018	0815	-5	X				
12A	12	OC_SVE_VMP-21_091718		SV	1L2793	1 L	23294	9/17/2018	1135	-30	9/17/2018	1142	-5	X				
13A	13	OC_SVE_VMP-84-12_091718		SV	1L2785	1 L	24278	9/17/2018	0848	-28	9/17/2018	0853	-5	X				
14A	14	OC_SVE_VMP-39-12_091718		SV	1L2744	1 L	23321	9/17/2018	0754	-30	9/17/2018	0801	-5	X				
15A	15	OC_SVE_VMP-18_091718		SV	20781	1 L	23322	9/17/2018	1004	-30	9/17/2018	1009	-5	X				
16A		OC_SVE_VMP-41-12_091718		SV	1L1575	1 L	23283	9/17/2018	1331	-30	9/17/2018	1338	-5	X				

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

AIR CHAIN OF CUSTODY RECORD

DATE: 09/17/18
PAGE: 2 OF 4

LABORATORY CLIENT: de maximis
ADDRESS: 1322 Scott St., Suite 104
CITY: San Diego STATE: CA ZIP: 92106
TEL: (562) 756-8149 EMAIL: jdinello@demaximis.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ EDD
SPECIAL INSTRUCTIONS: FedEx Custody Seal Intact? Y N None Temp NA

CLIENT PROJECT NAME / NUMBER: Omega - Semi-Annual VMP September 2018
PROJECT ADDRESS: 12520 Whittier Blvd.
CITY: Whittier STATE: CA ZIP: 90602
PROJECT CONTACT: Trent Henderson thenderson@jacobandhefner.com
SAMPLER(S): (NAME / SIGNATURE) Khalid Azhar

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY ☐☐-☐☐☐☐

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	FIELD ID / Point of Collection	Air Type (I) Indoor (SV) Soil Vap. (A) Ambient	Sampling Equipment Info: Canister ID#	Canister Size 6L or 1L	Flow Controller ID#	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure (“Hg)	TO-15 (TAL 2.4)
1	OC_SVE_VMP-39-6_091718		SV	1L3827	1 L	23158	9/17/2018	0742	-30	9/17/2018	0748	-5	X
2	OC_SVE_VMP-84-6_091718		SV	1L1926	1 L	23211	9/17/2018	0837	-28	9/17/2018	0842	-5	X
3	OC_SVE_VMP-84-60_091718		SV	1L3816	1 L	23499	9/17/2018	0941	-30	9/17/2018	0947	-5	X
4	OC_SVE_VMP-39-55_091718		SV	1L2787	1 L	23233	9/17/2018	0722	-30	9/17/2018	0728	-5	X
5	OC_SVE_VMP-84-50_091718		SV	1L3070	1 L	23436	9/17/2018	0929	-30	9/17/2018	0934	-5	X
6	OC_SVE_VMP-84-40_091718		SV	1L2491	1 L	23763	9/17/2018	0914	-30	9/17/2018	0919	-5	X
7	OC_SVE_VMP-27_091718		SV	5526	1 L	23135	9/17/2018	1211	-30	9/17/2018	1216	-5	X
8	OC_SVE_VMP-84-24_091718		SV	1L1841	1 L	23109	9/17/2018	0902	-27	9/17/2018	0907	-5	X
9	OC_SVE_VMP-20_091718		SV	1L2939	1 L	23513	9/17/2018	1101	-30	9/17/2018	1107	-5	X
10	OC_SVE_VMP-26_091718		SV	1L2544	1 L	23526	9/17/2018	1151	-30	9/17/2018	1157	-4.5	X
11	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X
12	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X
13	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X
14	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X
15	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X
	OC_SVE_VMP-_091718		SV		1 L		9/17/2018			9/17/2018			X

01A NA
02A 18A
03A 19A
04A 20A
05A 21A
06A 22A
07A 23A
08A 24A
09A 25A
10A 26A

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	EATL	9/20/18	0945
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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LD 9/21/18

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Attachment C

Field Forms

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0740
Location: B1
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Closed doors, carpet floors, windows closed, typical office stuff, one worker and two dogs inside

HVAC Operation:

- ☐ Not applicable
- ☑ On
- ☐ Off
- ☑ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0861 / 23447 -30 / -12 / -9.5"Hg
Duplicate (K)/Split (K2): 6L0798 / 23564 -30 / -9.5 / -6.0"Hg
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0741 - 1445 0741 - 1541
Sample number: IAQ_B1-091118, IAQ-B1_091118K
Detailed description of sample location:
Located on counter toward North side of office, ~5' high.

Total # of samples: 2

Duplicates: 1

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0740
Location: B2
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, door to warehouse closed, 2 workers in and out of office, typical office stuff.

HVAC Operation:

- ☐ Not applicable
- ☑ On
- ☐ Off
- ☑ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1321 / 23201 -30 / -16.5 / -8.0 "Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0740 - 1540
Sample number: IAQ_B2_091118
Detailed description of sample location: Set on counter towards south side of office, ~5' high

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0740
Location: B3
Weather Conditions: overcast, cool, 70° F
Field Personnel present: K. Szlar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Cement floor, West and East side roll up gates open, a few workers inside, slight odor,

HVAC Operation:

- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1732 / 23778 -30/-14.5/-5.5" Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0744-1544
Sample number: IAQ-B3-091118
Detailed description of sample location:
Located towards middle of warehouse, ~6' high

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0759
Location: MR1
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, door closed, windows closed, typical office stuff, pleasant odor, air purifier operating.

HVAC Operation:

- ☐ Not applicable
- ☐ On
- ☑ Off
- ☑ Fan running 24/7 after business hours? NO

* Air purifier is on

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1575 / 23757 -30/-15/-5.5"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0759 - 1559
Sample number: IAQ_MR1_091118
Detailed description of sample location: Set on desk in middle of office, ~4' high.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0825
Location: SC1
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: F. Azker
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Cement floor, roll up gate open, a few workers, ~~also~~ oil odor, a lot of tools around, several cars inside, a few spray cans nearby (degreasers), odor from spray cans (cannot identify).

HVAC Operation:

- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1244 / 23689 -30/-14.5 | -7.0"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0829 - 1629
Sample number: FAQ - SC1 - 091118
Detailed description of sample location:
set on shelf towards middle/south end of building, ~8' high.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0825
Location: SC2
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Cement floor, paint booth very close, strong odor of paint, roll up gates open, a few workers around

HVAC Operation:

- ☒ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0300 / 23480 -28/-14.5/-4.5"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0828 - 1628
Sample number: FAQ_SC2_091118
Detailed description of sample location:
set on short counter next to paint booth, ~3' high.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0825
Location: SC3
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Archer
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Tile floor, windows closed, door open, typical office stuff, 1 worker in and out, spray can of "FireAde" next to can.

HVAC Operation:

- ☐ Not applicable
- ☐ On
- ☒ Off
- ☒ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0010 / 23677 -29/-14.5/-5.0"Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0830-1630
Sample number: IAQ_SC3_091118
Detailed description of sample location:
Set on desk, ~4' high

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0815
Location: TP1
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Carpet floors, doors closed, windows closed, typical office stuff, one and one dog inside

HVAC Operation:
- ☐ Not applicable
- ☒ On
- ☐ Off
- ☒ Fan running 24/7 after business hours? No

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0670 / 23509 - 30 / -15.5 / -6.0"Hg
Duplicate (K)/Split (K2): 34000523/7304 - 30 / -13 / -5.0"Hg
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0819 - 1619
Sample number: IAQ_TP1_091118, IAQ_TP1_091118K2
Detailed description of sample location: Set on chair towards middle of office, ~3' high

Total # of samples: 2

Duplicates: 1

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0815
Location: TP3
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Dzhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Cement floors, windows closed, doors closed, a boat & car inside warehouse, generator, several paint sprayer machines, welding gas cylinders, several 5 gal buckets of joint compound,

HVAC Operation:
- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1144 / 23591 -28 / -13.5 / -3.5" Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0820 - 1620
Sample number: IAQ-TP3-091118
Detailed description of sample location: Located in middle of warehouse, set on floor, ~2' high.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0820
Location: AA1
Weather Conditions: Overcast, cool, 70°F
Field Personnel present: K. Allen
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Several asphalt machines around, forklift close by, a few trucks around, workers in and out of yard, several drums, two ~~gas~~ gas cans nearby, slight eastwardly breeze.

HVAC Operation:
- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L0499 / 23270 - 30 / -16.5 / -6.5"Hg
Duplicate (K)/Split (K2): –
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0821 - 1621
Sample number: IAQ_AA1_091118
Detailed description of sample location:
Hung up on pole on Southeast corner of TP building, ~6' high.

Total # of samples: 1

Duplicates: –

Signature of person making entries:

OMEGA Superfund Site
Indoor Air Quality Monitoring

Date: 9/11/18
Time of entry: 0730
Location: AA3
Weather Conditions: Overcast, cool, 70° F
Field Personnel present: K. Azhar
Field Measurements: -
Deviations from the Sampling Plan: None

Field Observations: Several cars parked close to can, very slight breeze

HVAC Operation:

- ☑ Not applicable
- ☐ On
- ☐ Off
- ☐ Fan running 24/7 after business hours?

Methods of sample collection and preservation: open/close intake valve
Equipment used to collect samples: 6 L Summa w/ 8 hr Flow Controller
Primary: 6L1467 / 23668 -28/-19.5/-12.5" Hg
Duplicate (K)/Split (K2): -
Instrument calibration info (including serial numbers): 120803
Time of sampling: 0732 - 1532
Sample number: IAQ_AA3_091118
Detailed description of sample location:
Hung up on fence between Star City and Medlin, ~6' high.

Total # of samples: 1

Duplicates: -

Signature of person making entries:

VAPOR PROBE MONITORING FORM

Omega - OU1 and AOC VMP Monitoring

Date: 9/17/18, 9/18/18

Technician: K. Archer

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
BISHOP CO. 12519 Putnam St, Whittier, CA									
VMP-23	30	4	8	9/17/18	1510	-0.030		Y	8.0"Hg → 1 min
VMP-24	31.5	4	8	"	1504	-0.063		Y	"
VMP-25	31.5	4	8	"	1538	-0.001		Y	"
Former FRED R. RIPPY 12471 Washington Blvd, Whittier, CA									
FRR-VMP-1-6	6	0.25	1	9/18/18	0845	-0.178		N	
FRR-VMP-1-12	12	0.25	1		0846	-0.189			
FRR-VMP-4-6	6	0.25	1		0848	-0.143			
FRR-VMP-4-12	12	0.25	1		0849	-0.035			
FRR-VMP-7-6	6	0.25	1		0853	-0.050			
FRR-VMP-7-12	12	0.25	1		0855	-0.085			
FRR-VMP-10-2	2	0.25	1		0839	-0.035			
FRR-VMP-10-6	6	0.25	1		0841	-0.051			
FRR-VMP-13-6	6	0.25	1		0857	-0.185			
FRR-VMP-13-12	12	0.25	1		0859	-0.385			
KAISER PERMANENTE MEDICAL OFFICES 12470 Whittier Blvd, Whittier, CA									
VMP-43-6	6	0.25	1	9/18/18	0711	-0.192		N	
VMP-43-12	12	0.25	1		0712	-0.112		N	
VMP-43-24	24	0.25	1		0714	-0.292		Y	8.0"Hg → 1 min
VMP-94-6	6	0.25	1		0644	-0.084		N	
VMP-94-11	11	0.25	1		0646	-0.145		N	
VMP-94-24	24	0.25	1		0648	-0.271		Y	8.0"Hg → 1 min. DUP
VMP-94-40	40	0.25	1		0650	-0.500		N	
VMP-94-50	50	0.25	1		0652	-0.711		N	
VMP-94-60	60	0.25	1		0653	-1.216		Y	8.0"Hg → 1 min. 1,1-DFA
VMP-94-69.5	69.5	0.25	1		0654	-1.752		N	
VMP-95-51	51	0.25	1		0722	-0.028		N	
VMP-95-61	61	0.25	1		0724	-3.149		Y	8.0"Hg → 1 min. Pulled small amount of water while purging.*
VMP-95-69.5	69.5	0.25	1		0725	-1.739		N	
MEDLIN & SONS ENGINEERING 12484 Whittier Blvd, Whittier, CA									
VMP-40-6	6	0.25	1	9/17/18	1410	Ø		Y	8.0"Hg → 1 min
VMP-40-12	12	1	1		1412	-0.012		Y	"
VMP-40-24	24	0.25	1		1414	-0.343		Y	"
VMP-40-55	55	0.25	1		1416	-0.102		Y	"
VMP-40-70	70	0.25	1		1418	-0.062		N	
VMP-41-6	6	0.25	1		1317	Ø		Y	8.0"Hg → 1 min
VMP-41-12	12	0.25	1		1331	-0.002		Y	"
VMP-41-24	24	0.25	1		1342	-0.001		Y	"
VMP-41-55	55	1	1		1353	Ø		Y	"
MERCHANT METALS (FORMER) 12482 Putnam St, Whittier, CA									
VMP-44-12	12	0.25	1	9/18/18	0753	-0.187		N	
VMP-44-24	24	0.25	1		0751	-0.427			
VMP-86-12	12	0.25	1		0800	-0.496			
VMP-86-24	24	0.25	1		0802	-0.268			

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* Replaced section of tubing where moisture was pulled into. (VMP-95-61) Purged moisture out prior to collecting sample.

VAPOR PROBE MONITORING FORM

Omega - OU1 and AOC VMP Monitoring

Date: 9/17/18, 9/18/18

Technician: K. Azhar

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-~~87~~88-12	12	0.25	1	9/18/18	0805	-0.291		N	
VMP-~~87~~88-24	24	0.25	1		0807	-0.393			
VMP-~~86~~87-12	12	0.25	1		0811	-0.081			
VMP-~~86~~88-24	24	0.25	1		0813	-0.088			
ROP AND WCCS (FORMER) 12519 Washington Blvd, Whittier, CA									
VMP-31-6	6	0.25	1	9/18/18	0941	-0.092		N	
VMP-31-12	12	0.25	1		0942	-0.197		N	
VMP-31-24	24	0.25	1		0943	-0.444		Y	8.0"Hg→1min, DUP
VMP-31-40	40	0.25	1		0947	Ø		N	
VMP-31-55	55	1	1		0946	-1.278			
VMP-31-60	60	0.25	1		0950	-0.622			
VMP-31-70	70	0.25	1		0951	Ø		Y	8.0"Hg→1min summa can did not fill completely
VMP-32-6	6	0.25	1		0909	-0.071		N	
VMP-32-12	12	0.25	1		0910	-0.158		N	
VMP-32-24	24	0.25	1		0911	-0.260		Y	8.0"Hg→1min. DUP
VMP-32-40	40	0.25	1		0905	-2.780		N	
VMP-32-55	55	1	1		0914	-2.353		N	
VMP-32-60	60	0.25	1		0907	-0.582		Y	8.0"Hg→1min. 1,1-DFA
VMP-32-70	70	0.25	1		0908	-0.554		N	
SKATELAND (FORMER) 12520 Whittier Blvd, Whittier, CA									
VMP-18	30	4	8	9/17/18	0950	Ø		Y	8.0"Hg→1min
VMP-39-6	6	0.25	1		0730	-0.005		Y	8.0"Hg→1min
VMP-39-12	12	0.25	1		0732	Ø		Y	8.0"Hg→1min
VMP-39-24	24	0.25	1		0734	Ø		Y	8.0"Hg→1min
VMP-39-55	55	1	1	9/17/18	0702	Ø		Y	8.0"Hg→1min
VMP-84-6	6	0.25	1		0820	-0.002		Y	8.0"Hg→1min
VMP-84-12	12	0.25	1		0822	Ø		Y	8.0"Hg→1min
VMP-84-24	24	0.25	1		0823	Ø		Y	8.0"Hg→1min
VMP-84-40	40	0.25	1		0825	Ø		Y	8.0"Hg→1min
VMP-84-50	50	1	1		0827	-0.003		Y	8.0"Hg→1min, 1,1-DFA
VMP-84-60	60	0.25	1		0829	-0.004		Y	8.0"Hg→1min
STAR CITY AUTO BODY 12504 Whittier Blvd, Whittier, CA									
VE-7S	30	4	4	9/18/18	1037	-0.223		N	
VMP-3D	70	4	3		1048	-0.386		N	
VMP-4D	70	4	3		1041	-1.972		N	
VMP-5	45	1	3		1036	-0.156		Y	8.0"Hg→1min
VMP-22	31.5	4	8		1035	-0.151		Y	8.0"Hg→1min
TERRA PAVE 12511 Putnam St, Whittier, CA									
VMP-11	30	4	8	9/18/18	1116	-0.505		Y	8.0"Hg→1min
VMP-12	31.5	4	8		1115	-0.976		Y	8.0"Hg→1min
VMP-13	31.5	4	8		1108	-0.144		N	
VMP-14	31.5	4	8					N	Buried
VMP-15	31.5	4	8		1113	-0.591		Y	8.0"Hg→1min
VMP-16	31.5	4	8		1107	-0.219		Y	8.0"Hg→1min, 1,1-DFA

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VAPOR PROBE MONITORING FORM

Omega - OU1 and AOC VMP Monitoring

Date: 9/18/18

Technician: K. Achar

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-17	31.5	4	8	9/18/18	1112	-0.973	—	Y	8.0"Hg → 1 min. ~~[illegible]~~

JHA Environmental

VAPOR PROBE MONITORING FORM

Omega - OU1 and AOC VMP Monitoring

Date: 9/17/18, 9/18/18, 9/19/18

Technician: K.A, C.S.

WELL ID	Depth (ft bgs)	Well Diameter (inches)	Purge Time (min)	Date	Time	Observed Vacuum ("H_2O)	PID Reading (ppm)	Sample Taken? (Y/N)	Notes
VMP-92-51.5	51.5	0.25	1	9/18/18	1140	Ø		N	
VMP-92-62	62	0.25	1	"	1142	-0.766		N	
VMP-92-68.5	68.5	0.25	1	"	1144	-0.399		Y	
VMP-93-50	50	0.25	1	9/19/18	0914	-1.128		N	
VMP-93-60	60	0.25	1	"	0915	-0.015		Y	8.0"Hg→1 min DUP
VMP-93-69.5	69.5	0.25	1	"	0918	-1.306		N	
THREE KINGS CONSTRUCTION (FORMER) 12512 Whittier Blvd, Whittier, CA									
VE-1M	36.5	4	4	9/17/18	1200	-0.520		N	8.0"Hg→1 min
VE-2S	23	4	4	9/17/18	1027	-0.090			
VE-4S	22.5	4	4		1032	-0.205			
VE-5M	36.5	4	4		1045	-0.626			
VMP-1D	70	4	3		1040	-0.504			
VMP-20	31.5	4	8		1047	-0.225		Y	
VMP-21	31.5	4	8		1135	-0.091		Y	
VMP-26	30.5	4	8		1140	-0.022		Y	
VMP-27	30	4	8		1204	-0.012		Y	

Attachment D

Data Validation Reports

Data Quality Assessment
Vapor Extraction Wells
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

SDG Number	Number of Samples	Analysis Method	Collection Date	Analysis Date	Sample ID	Data Usability
1809093	24	TO15	09/04/2018	09/13/2018	OC_SVE_DPE-3_090418	No qualifiers were applied as a result of the data review effort based on the data provided.
				09/14/2018	OC_SVE_DPE-4_090418	
					OC_SVE_DPE-5_090418	
					OC_SVE_DPE-8_090418	
					OC_SVE_DPE-9_090418	
					OC_SVE_VE-10S_090418	
					OC_SVE_VE-11S_090418	
					OC_SVE_VE-12S_090418	
					OC_SVE_VE-14D_090418	
					OC_SVE_VE-14S_090418	
					OC_SVE_VE-15S_090418	
					OC_SVE_VE-1S_090418	
					OC_SVE_VE-2D_090418	
					OC_SVE_VE-5S_090418	
					OC_SVE_VE-6S_090418	
					OC_SVE_VE-8S_090418	
					OC_SVE_VE-9S_090418	
					OC_SVE2_VE-10D_090418	
					OC_SVE2_VE-21S_090418	
					OC_SVE2_VE-31S_090418	
					OC_SVE2_VE-34S_090418	
					OC_SVE2_VE-39S_090418	
					OC_SVE2_VE-6D_090418	
					OC_SVE2_VE-7D_090418	

DATA VALIDATION

FOR

OU1 INDOOR AIR QUALITY
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air

Laboratory Job Nos.
1809921A
440-220005-1

Analyses Performed
By:

Eurofins/Air Toxics, Inc.
Folsom, CA

and

TestAmerica
West Sacramento, CA

For:

de maximis, Inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, Inc.
St. Paul, Minnesota 55108

November 1, 2018

1547-3139C/JLR
Omega\3rd Qrtr IAQ.docx

EXECUTIVE SUMMARY

The Level 4 validation of the volatile organics analysis data for 12 air quality samples prepared by Eurofins/Air Toxics and one split sample prepared by TestAmerica, (TA) from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full (Stage 4) validation was performed on two sample (bolded below), which represents 10% of the total number of samples received and analyzed by Eurofins/Air Toxics and TestAmerica (TA). A Stage 2B validation was performed on the remaining samples. The data were reported under Laboratory Job Nos. 1809221A and 440-220005-1. The following samples were reported:

SDG 1809921A

IAQ_AA3_091118	**IAQ_B2_091118**	IAQ_B1_091118
IAQ_B1_091118K	IAQ_B3_091118	IAQ_MR1_091118
IAQ_TP1_091118	IAQ_AA1_091118	IAQ_TP3_091118
IAQ_SC2_091118	IAQ_SC1_091118	**IAQ_SC3_091118**

SDG 440-210005-1

IAQ_TP1_091118K2

Based on the validation effort, the following data qualifiers were applied:

- The results for Freon 11 in the following samples were qualified as estimated (J+):
    - IAQ_AA1_091118
    - IAQ_TP3_091118
    - IAQ_SC1_091118
    - IAQ_SC3_091118
- The results for carbon tetrachloride, Freon12 and methylene chloride in IAQ_TP1_091118K2 were qualified as not detected (U) at the RL or reported value, whichever is greater.
- The results for benzene, m,p-xylenes and o-xylene in IAQ_TP1_091118, IAQ_TP3_091118 and IAQ_TP1_091118K2 were qualified as estimated (J).
- The following sample results for chloroform were qualified as estimated (J) and presumptively present (N):

- IAQ_B2_091118
- IAQ_B1_091118
- IAQ_B1_091118K
- IAQ_B3_091118
- IAQ_MR1_091118
- IAQ_TP1_091118

- The results for acetone in the following samples were qualified as estimated (J):

  - IAQ_SC1_091118
  - IAQ_SC2_091118
  - IAQ_SC3_091118

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section IV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section II.

This report should be considered <u>part of the data package</u> for all future distributions of the volatiles data.

INTRODUCTION

Analyses were performed in accordance with USEPA Method TO-15 and Method TO-15 using Selective Ion Monitoring (SIM). These methodologies do not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review.

ddms' validation was performed, to the extent possible, in conformance with the "Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010", ddms Standard Operating Procedure ESC-001 'Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17' and the analytical method. Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for but was not detected above the level of 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.

JN The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration 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 QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the data summary forms contained in Attachment A.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting a sample collection date of September 11, 2018. The samples were received at Eurofins Air Toxics and TA Irvine on September 13, 2018. The split sample was sent to TA West Sacramento and received on September 18, 2018. All samples were analyzed within the method specified hold time.

II. Documentation

The following documentation issue was observed during the review effort:

- TA applied a 'B' qualifier to sample results, regardless of concentration, where there were detections in the associated method blank. The validator removed the 'B' qualifier when the sample result was greater than five times the concentration in the method blank.

The remainder of this report is divided into two sections, one reporting the review effort for each of the parameters and the other the Overall Assessment, summarizing the reason for the qualifications made to sample results as a result of the validation effort. The table below documents the Quality Control (QC) parameters reviewed. Only those quality excursions resulting in qualified data are discussed below. Quality control excursions having no impact to sample results are not discussed. Where a result was qualified J+ or J- and J, the J qualifier takes precedence. Where a result was qualified biased high and low for differing data quality excursions, the final qualifier is J with an indeterminate bias.

III. VOCs

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration (Initial Calibration [IC], IC Verification [ICV], Continuing Calibration [CC])	N
Laboratory and Field Blanks	N
Surrogates	Y
Laboratory Control Samples (LCS)/ LCS Duplicates (LCSD)	Y
Field Duplicates	Y
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	n/a
Internal Standard Responses	Y
Compound Identification	N

Review Element	Acceptable?
Compound Quantitation	N
Overall Evaluation	N

n/a-not applicable

Calibration

Summary results for initial calibrations (IC) were reported in support of sample analyses. Although the standards included more compounds than were specifically applicable to these analyses, all project-specified target analytes were included on the IC summary form. For the relevant target analytes, the reported average relative response factors (RRFs) were greater than the evaluation criterion (>0.05) and the relative standard deviations (RSDs) were acceptable (<30% RSD). An ICV was analyzed immediately following the IC and was acceptable (<30%D). Summary forms were provided for continuing calibration (CC) standards, as appropriate. Reported RRFs and percent difference (%D) values were acceptable, with the exception of Freon 11 in the CC analyzed on September 9, 2018.

The results for Freon 11 in the following samples were qualified as estimated (J+) and may be biased high due to an increase in instrument sensitivity:

- IAQ_AA1_091118
- IAQ_TP3_091118
- IAQ_SC1_091118
- IAQ_SC3_091118

Blanks

A method blank was analyzed each day of sample analysis. No target analytes were detected in the method blanks. The split sample sent to TA (IAQ_TP1_091118K2) was collected in a canister that was not clean canister certified for the low level Selected Ion Monitoring (SIM) analysis. As a result, there is the potential for low level contamination in the canister that may not have been detected because the results of the clean canister certification have higher RLs. The following target compounds detected in the method impacted sample results:

Blank	Compound	Conc.	Affected Sample(s)
MB 320-246474/7	Carbon tetrachloride	0.00521 ppbv	IAQ_TP1_091118K2
Clean Canister Certification 34000523	Freon 12	0.0673 ppbv	
	Methylene chloride	0.23 ppbv	

Sample results were qualified as not detected (U) at the reporting limit, or reported value, whichever is greater, due to blank contamination.

Duplicate Samples

Field

IAQ_B1_091118K was submitted as a field duplicate of IAQ_B1_091118. Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL).

Laboratory Split Sample

IAQ_TP1_091118K2 was submitted as a split sample of IAQ_TP1_091118. Because the canister used to collect IAQ_TP1_091118K2 was not clean-canister certified for SIM analysis, only results above the RL in the clean canister certification were used to evaluate precision between laboratory split samples.

Following qualification based on associated blank contamination, precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL), with the following exceptions:

RL	Field Sample ID	IAQ_TP1_091118K2	IAQ_TP1_091118	RPD
0.02	Benzene	0.6	0.87	37
0.01	Carbon tetrachloride	0.14(U)	0.079	nc
0.02	Freon 12	0.26(U)	0.45	nc
0.04	m,p-Xylene	1.7	1.2	34
0.02	o-Xylene	0.6	0.42	35

nc-not calculated

The results for benzene, m,p-xylenes and o-xylene in IAQ_TP1_091118, IAQ_TP3_091118 and IAQ_TP1_091118K2 were qualified as estimated (J) due to imprecision in split samples. Carbon tetrachloride and Freon 12 in IAQ_TP1_091118K2 were previously qualified as not detected (U) due to detections in the clean canister certification. No sample results were qualified based on results for carbon tetrachloride and Freon 12.

Compound Identification

For SIM analysis, ratios must be determined during initial calibration using the integrated areas for the primary and secondary ions in order to allow confirmation of target analytes when detected in samples. This information was not provided in the TestAmerica data package. The validation of the laboratory split samples was completed under the assumption that proper ion ratios were established and used to confirm the identity of target compounds.

The following sample results were qualified as estimated (J) and presumptively present (N) because the ion ratios for chloroform were outside acceptance limits:

- IAQ_B2_091118
- IAQ_B1_091118
- IAQ_B1_091118K
- IAQ_B3_091118
- IAQ_MR1_091118
- IAQ_TP1_091118

Compound Quantitation

Target compound concentrations and RLs were correctly calculated and accurately reported for the samples and spiked samples.

The results for acetone in the following samples were qualified as estimated (J) because the concentration is above the calibration range:

- IAQ_SC1_091118
- IAQ_SC2_091118
- IAQ_SC3_091118

Overall Evaluation

Sample results were determined to be valid as reported, with the exceptions and qualifications noted above.

IV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The results for Freon 11 in the following samples were qualified as estimated (J+) high due high response in the CC:
    - IAQ_AA1_091118
    - IAQ_TP3_091118
    - IAQ_SC1_091118
    - IAQ_SC3_091118

- The results for carbon tetrachloride, Freon12 and methylene chloride in IAQ_TP1_091118K2 were qualified as not detected (U) at the RL or reported value, whichever is greater, due to associated blank contamination.

- The results for benzene, m,p-xylenes and o-xylene in IAQ_TP1_091118, IAQ_TP3_091118 and IAQ_TP1_091118K2 were qualified as estimated (J) due to imprecision in split samples.

- The following sample results for chloroform were qualified as estimated (J) and presumptively present (N) because the ion ratios were outside acceptance limits:

    - IAQ_B2_091118
    - IAQ_B1_091118
    - IAQ_B1_091118K
    - IAQ_B3_091118
    - IAQ_MR1_091118
    - IAQ_TP1_091118

- The results for acetone in the following samples were qualified as estimated (J) because the concentration is above the calibration range:

    - IAQ_SC1_091118
    - IAQ_SC2_091118
    - IAQ_SC3_091118

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section II.

This validation report should be considered <u>part of the data package</u> for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
1809221A
440-220005-1

Omega Chemical
OU1
Indoor Air Quality
(ppbv)

	Field Sample ID	IAQ_AA1_091118		IAQ_AA3_091118		IAQ_B1_091118		IAQ_B1_091118K	
	Sample Type	N		N		N		FD	
	Lab Sample ID	1809221A-11A		1809221A-03A		1809221A-06A		1809221A-07A	
RL	Dilution Factor	1.69		2.54		1.55		1.63	
0.5	Acetone	**7.4**		**20**		**13**		**12**	
0.2	Methylene chloride	0.34	U	0.51	U	**0.36**		**0.35**	
0.02	1,1,1-Trichloroethane (TCA)	0.034	U	0.051	U	0.031	U	0.033	U
0.02	1,1,2,2-Tetrachloroethane	0.034	U	0.051	U	0.031	U	0.033	U
0.02	1,1,2-Trichloroethane	0.034	U	0.051	U	0.031	U	0.033	U
0.02	1,1-Dichloroethane	0.034	U	0.051	U	0.031	U	0.033	U
0.01	1,1-Dichloroethene	0.017	U	0.025	U	0.016	U	0.016	U
0.02	1,2-Dichlorobenzene	0.034	U	0.051	U	0.031	U	0.033	U
0.02	1,2-Dichloroethane	0.034	U	0.051	U	0.031	U	0.033	U
0.02	1,4-Dichlorobenzene	0.034	U	0.051	U	0.031	U	0.033	U
0.05	Benzene	**0.13**		**0.23**		**0.19**		**0.19**	
0.02	Carbon tetrachloride	**0.084**		**0.078**		**0.085**		**0.086**	
0.02	Chlorobenzene	0.034	U	0.051	U	0.031	U	0.033	U
0.02	Chloroform	0.034	U	0.051	U	**0.042**	**J,N**	**0.04**	**J,N**
0.02	cis-1,2-Dichloroethene	0.034	U	0.051	U	0.031	U	0.033	U
0.02	Ethylbenzene	**0.067**		**0.12**		**0.058**		**0.056**	
0.02	Freon 11	**0.25**	**J+**	**0.24**		**0.24**		**0.24**	
0.02	Freon 113	**0.071**		**0.071**		**0.072**		**0.072**	
0.02	Freon 12	**0.5**		**0.44**		**0.46**		**0.45**	
0.04	m,p-Xylene	**0.21**		**0.4**		**0.14**		**0.14**	
0.1	Methyl Tert-Butyl Ether	0.17	U	0.25	U	0.16	U	0.16	U
0.02	o-Xylene	**0.088**		**0.13**		**0.066**		**0.057**	
0.02	Tetrachloroethene (PCE)	**0.035**		0.051	U	0.031	U	0.033	U
0.02	Toluene	**0.4**		**0.47**		**0.44**		**0.42**	
0.1	trans-1,2-Dichloroethene	0.17	U	0.25	U	0.16	U	0.16	U
0.02	trans-1,3-Dichloropropene	0.034	U	0.051	U	0.031	U	0.033	U
0.02	Trichloroethene (TCE)	0.034	U	0.051	U	0.031	U	0.033	U
0.01	Vinyl chloride	0.017	U	0.025	U	0.016	U	0.016	U

Omega Chemical
OU1
Indoor Air Quality
(ppbv)

	Field Sample ID	IAQ_B2_091118		IAQ_B3_091118		IAQ_MR1_091118		IAQ_SC1_091118	
	Sample Type	N		N		N		N	
	Lab Sample ID	1809221A-05A		1809221A-08A		1809221A-09A		1809221A-14A	
RL	Dilution Factor	1.77		1.67		1.68		3.36	
0.5	Acetone	**69**		**15**		**20**		**380**	**J**
0.2	Methylene chloride	**0.37**		**0.36**		**0.41**		**0.7**	
0.02	1,1,1-Trichloroethane (TCA)	**0.035**		0.033	U	0.034	U	0.067	U
0.02	1,1,2,2-Tetrachloroethane	0.035	U	0.033	U	0.034	U	0.067	U
0.02	1,1,2-Trichloroethane	0.035	U	0.033	U	0.034	U	0.067	U
0.02	1,1-Dichloroethane	0.035	U	0.033	U	0.034	U	0.067	U
0.01	1,1-Dichloroethene	0.018	U	0.017	U	0.017	U	0.034	U
0.02	1,2-Dichlorobenzene	0.035	U	0.033	U	0.034	U	0.067	U
0.02	1,2-Dichloroethane	**0.049**		0.033	U	0.034	U	0.067	U
0.02	1,4-Dichlorobenzene	0.035	U	0.033	U	0.034	U	0.067	U
0.05	Benzene	**0.88**		**0.22**		**0.36**		**0.41**	
0.02	Carbon tetrachloride	**0.08**		**0.079**		**0.08**		**0.081**	
0.02	Chlorobenzene	0.035	U	0.033	U	0.034	U	0.067	U
0.02	Chloroform	**0.056**	**J,N**	**0.036**	**J,N**	**0.043**	**J,N**	0.067	U
0.02	cis-1,2-Dichloroethene	0.035	U	0.033	U	0.034	U	0.067	U
0.02	Ethylbenzene	**1.3**		**0.11**		**0.19**		**0.34**	
0.02	Freon 11	**0.24**		**0.24**		**0.25**		**0.24**	**J+**
0.02	Freon 113	**0.075**		**0.072**		**0.074**		0.067	U
0.02	Freon 12	**0.45**		**0.45**		**0.45**		**0.48**	
0.04	m,p-Xylene	**5.3**		**0.31**		**0.64**		**1.2**	
0.1	Methyl Tert-Butyl Ether	0.18	U	0.17	U	0.17	U	0.34	U
0.02	o-Xylene	**1.7**		**0.13**		**0.26**		**0.43**	
0.02	Tetrachloroethene (PCE)	**0.058**		0.033	U	0.034	U	0.067	U
0.02	Toluene	**7.9**		**1**		**1.3**		**5.5**	
0.1	trans-1,2-Dichloroethene	0.18	U	0.17	U	0.17	U	0.34	U
0.02	trans-1,3-Dichloropropene	0.035	U	0.033	U	0.034	U	0.067	U
0.02	Trichloroethene (TCE)	0.035	U	0.033	U	0.034	U	0.067	U
0.01	Vinyl chloride	0.018	U	0.017	U	0.017	U	0.034	U

Omega Chemical
OU1
Indoor Air Quality
(ppbv)

	Field Sample ID	IAQ_SC2_091118		IAQ_SC3_091118		IAQ_TP1_091118		IAQ_TP3_091118	
	Sample Type	N		N		N		N	
	Lab Sample ID	1809221A-13A		1809221A-15A		1809221A-10A		1809221A-12A	
RL	Dilution Factor	16.3		1.58		1.61		1.64	
0.5	Acetone	**2400**	**J**	**120**	**J**	**9.8**		**10**	
0.2	Methylene chloride	3.3	U	**0.6**		0.32	U	0.33	U
0.02	1,1,1-Trichloroethane (TCA)	0.33	U	0.032	U	0.032	U	0.033	U
0.02	1,1,2,2-Tetrachloroethane	0.33	U	0.032	U	0.032	U	0.033	U
0.02	1,1,2-Trichloroethane	0.33	U	0.032	U	0.032	U	0.033	U
0.02	1,1-Dichloroethane	0.33	U	0.032	U	0.032	U	0.033	U
0.01	1,1-Dichloroethene	0.16	U	0.016	U	0.016	U	0.016	U
0.02	1,2-Dichlorobenzene	0.33	U	0.032	U	0.032	U	0.033	U
0.02	1,2-Dichloroethane	0.33	U	**0.098**		0.032	U	0.033	U
0.02	1,4-Dichlorobenzene	0.33	U	0.032	U	0.032	U	0.033	U
0.05	Benzene	**1.2**		**0.21**		**0.87**	**J**	**3.3**	**J**
0.02	Carbon tetrachloride	0.33	U	**0.094**		**0.079**		**0.085**	
0.02	Chlorobenzene	0.33	U	0.032	U	0.032	U	0.033	U
0.02	Chloroform	0.33	U	0.032	U	**0.044**	**J,N**	0.033	U
0.02	cis-1,2-Dichloroethene	0.33	U	0.032	U	0.032	U	0.033	U
0.02	Ethylbenzene	**3**		**0.37**		**0.34**		**2.6**	
0.02	Freon 11	0.33	U	**0.26**	**J+**	**0.25**		**0.26**	**J+**
0.02	Freon 113	0.33	U	**0.066**		**0.072**		**0.065**	
0.02	Freon 12	**0.62**		**0.47**		**0.45**		**0.49**	
0.04	m,p-Xylene	**12**		**1.2**		**1.2**	**J**	**11**	**J**
0.1	Methyl Tert-Butyl Ether	1.6	U	0.16	U	0.16	U	0.16	U
0.02	o-Xylene	**3.1**		**0.45**		**0.42**	**J**	**3.7**	**J**
0.02	Tetrachloroethene (PCE)	0.33	U	0.032	U	0.032	U	0.033	U
0.02	Toluene	**8.9**		**4.5**		**3.3**		**19**	
0.1	trans-1,2-Dichloroethene	1.6	U	0.16	U	0.16	U	0.16	U
0.02	trans-1,3-Dichloropropene	0.33	U	0.032	U	0.032	U	0.033	U
0.02	Trichloroethene (TCE)	0.33	U	**0.032**		**0.084**		0.033	U
0.01	Vinyl chloride	0.16	U	0.016	U	0.016	U	0.016	U

Omega Chemical
OU1
Indoor Air Quality
(ppbv)

	Field Sample ID	**IAQ_TP1_091118K2**	
	Sample Type	KD	
	Lab Sample ID	440-220005-1	
RL	**Dilution Factor**	1	
0.02	1,1,1-Trichloroethane (TCA)	0.02	U
0.02	1,1,2,2-Tetrachloroethane	0.02	U
0.05	1,1,2-Trichloroethane	0.05	U
0.02	1,1-Dichloroethane	0.02	U
0.02	1,1-Dichloroethene	0.02	U
0.05	1,2-Dichlorobenzene	0.05	U
0.02	1,2-Dichloroethane	**0.014**	**J**
0.1	1,4-Dichlorobenzene	**0.01**	**J**
5	Acetone	**12**	
0.02	Benzene	**0.6**	**J**
0.01	Carbon tetrachloride	0.01	U
0.02	Chlorobenzene	0.02	U
0.02	Chloroform	**0.024**	
0.02	cis-1,2-Dichloroethene	0.02	U
0.02	Ethylbenzene	**0.4**	
0.045	Freon 11	**0.24**	
0.03	Freon 113	**0.066**	
0.02	Freon 12	0.02	U
0.04	m,p-Xylene	**1.7**	**J**
0.025	Methyl Tert-Butyl Ether	0.025	U
0.2	Methylene chloride	0.2	U
0.02	o-Xylene	**0.6**	**J**
0.02	Tetrachloroethene (PCE)	**0.018**	**J**
0.02	Toluene	**2.8**	
0.02	trans-1,2-Dichloroethene	0.02	U
0.02	trans-1,3-Dichloropropene	0.02	U
0.02	Trichloroethene (TCE)	**0.0064**	**J**
0.02	Vinyl chloride	0.02	U

DATA VALIDATION

FOR

SOIL VAPOR EXTRACTION SYSTEM
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air
Laboratory Job Nos.

1809378

Analyses Performed
By:

Eurofins Air Toxics
Folsom, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

November 1, 2018

1547-3139-1/psn
Omega\Q3VMP_1809378.docx

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Eurofins Air Toxics for 20 SVE air samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). The two samples receiving full validation represent 10% of the total number of SVE air samples received and analyzed by Air Toxics. The data were reported under Laboratory Job No. 1809378. Full validation was performed on the sample identifications that have been **bolded**. The following samples were reported.

1809378

OC_SVE_VMP-23_091718	OC_SVE_VMP-25_091718
OC_SVE_VMP-39-12_091718	OC_SVE_VMP-39-24_091718
OC_SVE_VMP-39-55_091718	OC_SVE_VMP-39-6_091718
OC_SVE_VMP-40-12_091718	**OC_SVE_VMP-40-24_091718**
OC_SVE_VMP-40-55_091718	OC_SVE_VMP-40-6_091718
OC_SVE_VMP-41-12_091718	OC_SVE_VMP-41-24_091718
OC_SVE_VMP-41-55_091718	OC_SVE_VMP-41-6_091718
OC_SVE_VMP-84-12_091718	OC_SVE_VMP-84-24_091718
OC_SVE_VMP-84-40_091718	OC_SVE_VMP-84-50_091718
OC_SVE_VMP-84-6_091718	OC_SVE_VMP-84-60_091718

Based on the validation effort, results for methyl ethyl ketone, acetone, and tetrachloroethene in all samples were qualified as estimated (J, UJ).

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA TO-15. This methodology does not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review of the samples receiving full data validation.

The data validation and review were performed, to the extent possible, in conformance with the “Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010” and ddms’ Standard Operating Procedure: Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17 (ECS-SOP-001). Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for but was not detected above the level of 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.

JN The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration 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 QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the Data Summary Forms contained in Attachment A to indicate qualifications placed on the results based on the data review.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting a sample collection date of September 17, 2018. The samples were received at Eurofins Air Toxics on September 20, 2018. All samples were analyzed within the method specified hold time.

II. Documentation

No documentation issues were observed during the review effort.

The remainder of this report is divided into two sections, one reporting the review effort for each of the parameters and the other the Overall Assessment, summarizing the reason for the qualifications made to sample results as a result of the validation effort. The table below documents the Quality Control (QC) parameters reviewed. Only those quality excursions resulting in qualified data are discussed below. Quality control excursions having no impact to sample results are not discussed.

III. VOCs

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration (Initial Calibration [IC], IC Verification [ICV], Continuing Calibration [CC])	Y
Laboratory and Field Blanks	Y
Surrogates	Y
Laboratory Control Samples (LCS)/ LCS Duplicates (LCSD)	Y
Field Duplicates	N
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	n/a
Internal Standard Responses	Y
Compound Identification	Y
Compound Quantitation	Y
Overall Evaluation	N

n/a-not applicable

<u>Duplicate Samples</u>

Four sets of field duplicates were submitted with the samples in SDG 1809379R1.

- OC_SVE_VMP-31-24_091818/OC_SVE_VMP-31-24_091818K

- OC_SVE_VMP-32-24_091818/OC_SVE_VMP-32-24_091818K
- OC_SVE_VMP-94-24_091818/OC_SVE_VMP-94-24_091818K
- OC_SVE_VMP-93-60_091918/OC_SVE_VMP-93-60_091918K

Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL), except as summarized below.

Compound	**OC_SVE_VMP-31-24_091818**	**OC_SVE_VMP-31-24_091818K**	**RPD**
Acetone	36	100	94
Methyl ethyl ketone	68	120	55
Tetrachloroethene	6.1	8.2	29

Compound	**OC_SVE_VMP-32-24_091818**	**OC_SVE_VMP-32-24_091818K**	**RPD**
Acetone	31	64	69
Tetrachloroethene	5.6	8.1	36

Field Sample ID	**OC_SVE_VMP-94-24_091818**	**OC_SVE_VMP-94-24_091818K**	**RPD**
Acetone	34	25	30
Methyl ethyl ketone	110	82	29
Tetrachloroethene	13	9.3	33

Results for methyl ethyl ketone, acetone, and tetrachloroethene in all samples were qualified as estimated (J, UJ) due to poor precision between paired results.

IV. Overall Assessment

Based on the validation effort, results for methyl ethyl ketone, acetone, and tetrachloroethene in all samples were qualified as estimated (J, UJ) due to poor precision between paired results.

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section II.

This validation report should be considered <u>part of the data package</u> for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
Laboratory Job Nos.
1809378

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ppbv

	Field Sample ID	OC_SVE_VMP-23_091718		OC_SVE_VMP-25_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-06A		1809378-03A	
RL	Dilution Factor	2.48		2.46	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	5	U	4.9	U
2	1,2,4-Trichlorobenzene	5	U	4.9	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	5	U	4.9	U
2	2-Hexanone	**6.1**		4.9	U
2	3-Chloropropene	5	U	4.9	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**120**	**J**	**400**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	5	U	**12**	
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	5	U	4.9	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	5	U	4.9	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol	5	U	4.9	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**210**	**J**	**1800**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ppbv

	Field Sample ID	OC_SVE_VMP-23_091718		OC_SVE_VMP-25_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-06A		1809378-03A	
RL	Dilution Factor	2.48		2.46	
2	Methyl Tert-Butyl Ether	5	U	4.9	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**50**	**J**	**21**	**J**
10	TNMOC ref. to Heptane	**230**		**1700**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	**1.7**		1.2	U
2	Vinyl acetate	5	U	4.9	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ppbv

	Field Sample ID	OC_SVE_VMP-39-12_091718		OC_SVE_VMP-39-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-12A		1809378-10A	
RL	Dilution Factor	2.25		2.27	
0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.1	U
0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.1	U
0.5	1,1,2-Trichloroethane	1.1	U	1.1	U
0.5	1,1-Dichloroethane	1.1	U	1.1	U
0.5	1,1-Dichloroethene	**1.4**		1.1	U
2	1,1-Difluoroethane	**250**		**81**	
2	1,2,4-Trichlorobenzene	4.5	U	4.5	U
0.5	1,2,4-Trimethylbenzene	1.1	U	1.1	U
0.5	1,2-Dibromoethane (EDB)	1.1	U	1.1	U
0.5	1,2-Dichlorobenzene	1.1	U	1.1	U
0.5	1,2-Dichloroethane	1.1	U	1.1	U
0.5	1,2-Dichloropropane	1.1	U	1.1	U
0.5	1,2-	1.1	U	1.1	U
0.5	1,3,5-Trimethylbenzene	1.1	U	1.1	U
0.5	1,3-Dichlorobenzene	1.1	U	1.1	U
0.5	1,4-Dichlorobenzene	1.1	U	1.1	U
2	1,4-Dioxane	4.5	U	4.5	U
2	2-Hexanone	4.5	U	4.5	U
2	3-Chloropropene	4.5	U	4.5	U
0.5	4-Ethyltoluene	1.1	U	1.1	U
5	Acetone	**22**	**J**	**24**	**J**
0.5	Benzene	1.1	U	1.1	U
0.5	Benzyl chloride	1.1	U	1.1	U
0.5	Bromodichloromethane	1.1	U	1.1	U
0.5	Bromoform	1.1	U	1.1	U
5	Bromomethane	11	U	11	U
2	Carbon disulfide	4.5	U	4.5	U
0.5	Carbon tetrachloride	1.1	U	1.1	U
0.5	Chlorobenzene	1.1	U	1.1	U
2	Chloroethane	4.5	U	4.5	U
0.5	Chloroform	1.1	U	1.1	U
5	Chloromethane	11	U	11	U
0.5	cis-1,2-Dichloroethene	1.1	U	1.1	U
0.5	cis-1,3-Dichloropropene	1.1	U	1.1	U
0.5	Dibromochloromethane	1.1	U	1.1	U
0.5	Ethylbenzene	1.1	U	1.1	U
0.5	Freon 11	**3**		1.1	U
0.5	Freon 113	**3.9**		1.1	U
0.5	Freon 12	1.1	U	1.1	U
2	Hexachlorobutadiene	4.5	U	4.5	U
0.5	Hexane (N-Hexane)	1.1	U	1.1	U
2	Isopropyl Alcohol	4.5	U	**16**	
0.5	m,p-Xylene	**1.3**		1.1	U
2	Methyl ethyl ketone	**5.6**	**J**	**7**	**J**
0.5	Methyl isobutyl ketone	1.1	U	1.1	U

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	Field Sample ID	OC_SVE_VMP-39-12_091718		OC_SVE_VMP-39-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-12A		1809378-10A	
RL	Dilution Factor	2.25		2.27	
2	Methyl Tert-Butyl Ether	4.5	U	4.5	U
5	Methylene chloride	11	U	11	U
0.5	o-Xylene	1.1	U	1.1	U
0.5	Styrene	1.1	U	1.1	U
0.5	Tetrachloroethene (PCE)	**65**	**J**	**26**	**J**
10	TNMOC ref. to Heptane	**170**		**85**	
0.5	Toluene	**1.7**		**1.5**	
0.5	trans-1,2-Dichloroethene	1.1	U	1.1	U
0.5	trans-1,3-Dichloropropene	1.1	U	1.1	U
0.5	Trichloroethene (TCE)	**3.7**		**1.1**	
2	Vinyl acetate	4.5	U	4.5	U
0.5	Vinyl chloride	1.1	U	1.1	U

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	Field Sample ID	OC_SVE_VMP-39-55_091718		OC_SVE_VMP-39-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-17A		1809378-14A	
RL	Dilution Factor	46.8		2.19	
0.5	1,1,1-Trichloroethane (TCA)	23	U	1.1	U
0.5	1,1,2,2-Tetrachloroethane	23	U	1.1	U
0.5	1,1,2-Trichloroethane	23	U	1.1	U
0.5	1,1-Dichloroethane	23	U	1.1	U
0.5	1,1-Dichloroethene	**75**		**14**	
2	1,1-Difluoroethane	**140000**	**E**	**81**	
2	1,2,4-Trichlorobenzene	94	U	4.4	U
0.5	1,2,4-Trimethylbenzene	23	U	1.1	U
0.5	1,2-Dibromoethane (EDB)	23	U	1.1	U
0.5	1,2-Dichlorobenzene	23	U	1.1	U
0.5	1,2-Dichloroethane	23	U	1.1	U
0.5	1,2-Dichloropropane	23	U	1.1	U
0.5	1,2-	23	U	1.1	U
0.5	1,3,5-Trimethylbenzene	23	U	1.1	U
0.5	1,3-Dichlorobenzene	23	U	1.1	U
0.5	1,4-Dichlorobenzene	23	U	1.1	U
2	1,4-Dioxane	94	U	4.4	U
2	2-Hexanone	94	U	4.4	U
2	3-Chloropropene	94	U	4.4	U
0.5	4-Ethyltoluene	23	U	1.1	U
5	Acetone	230	UJ	**27**	**J**
0.5	Benzene	23	U	**1.3**	
0.5	Benzyl chloride	23	U	1.1	U
0.5	Bromodichloromethane	23	U	1.1	U
0.5	Bromoform	23	U	1.1	U
5	Bromomethane	230	U	11	U
2	Carbon disulfide	94	U	4.4	U
0.5	Carbon tetrachloride	23	U	1.1	U
0.5	Chlorobenzene	23	U	1.1	U
2	Chloroethane	94	U	4.4	U
0.5	Chloroform	23	U	1.1	U
5	Chloromethane	230	U	11	U
0.5	cis-1,2-Dichloroethene	23	U	1.1	U
0.5	cis-1,3-Dichloropropene	23	U	1.1	U
0.5	Dibromochloromethane	23	U	1.1	U
0.5	Ethylbenzene	23	U	1.1	U
0.5	Freon 11	**27**		**26**	
0.5	Freon 113	**37**		**39**	
0.5	Freon 12	23	U	1.1	U
2	Hexachlorobutadiene	94	U	4.4	U
0.5	Hexane (N-Hexane)	23	U	1.1	U
2	Isopropyl Alcohol	94	U	4.4	U
0.5	m,p-Xylene	23	U	1.1	U
2	Methyl ethyl ketone	94	UJ	**7.6**	**J**
0.5	Methyl isobutyl ketone	23	U	1.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ppbv

	Field Sample ID	OC_SVE_VMP-39-55_091718		OC_SVE_VMP-39-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-17A		1809378-14A	
RL	Dilution Factor	46.8		2.19	
2	Methyl Tert-Butyl Ether	94	U	4.4	U
5	Methylene chloride	230	U	11	U
0.5	o-Xylene	23	U	1.1	U
0.5	Styrene	23	U	1.1	U
0.5	Tetrachloroethene (PCE)	**580**	**J**	**430**	**J**
10	TNMOC ref. to Heptane	**17000**		**1000**	
0.5	Toluene	23	U	1.1	U
0.5	trans-1,2-Dichloroethene	23	U	1.1	U
0.5	trans-1,3-Dichloropropene	23	U	1.1	U
0.5	Trichloroethene (TCE)	**210**		**39**	
2	Vinyl acetate	94	U	4.4	U
0.5	Vinyl chloride	23	U	1.1	U

VALIDATION DATA SUMMARY REPORT
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	Field Sample ID	OC_SVE_VMP-40-12_091718		OC_SVE_VMP-40-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-02A		1809378-01A	
RL	Dilution Factor	2.51		2.46	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	5	U	4.9	U
2	1,2,4-Trichlorobenzene	5	U	4.9	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	5	U	4.9	U
2	2-Hexanone	**9.4**		**6.4**	
2	3-Chloropropene	5	U	4.9	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**170**	**J**	**110**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	5	U	4.9	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	5	U	4.9	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	5	U	4.9	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol	5	U	4.9	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**290**	**J**	**200**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-40-12_091718		OC_SVE_VMP-40-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-02A		1809378-01A	
RL	Dilution Factor	2.51		2.46	
2	Methyl Tert-Butyl Ether	5	U	4.9	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**32**	**J**	**24**	**J**
10	TNMOC ref. to Heptane	**320**		**220**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	**1.8**		**1.8**	
2	Vinyl acetate	5	U	4.9	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
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	Field Sample ID	OC_SVE_VMP-40-55_091718		OC_SVE_VMP-40-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-05A		1809378-07A	
RL	Dilution Factor	2.48		2.45	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	5	U	4.9	U
2	1,2,4-Trichlorobenzene	5	U	4.9	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	5	U	4.9	U
2	2-Hexanone	**6**		**10**	
2	3-Chloropropene	5	U	4.9	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**130**	**J**	**140**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	**220**		4.9	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	5	U	4.9	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	**29**		12	U
0.5	cis-1,2-Dichloroethene	1.2	U	**1.7**	
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	5	U	4.9	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol	5	U	4.9	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**220**	**J**	**290**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ppbv

	Field Sample ID	OC_SVE_VMP-40-55_091718		OC_SVE_VMP-40-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-05A		1809378-07A	
RL	Dilution Factor	2.48		2.45	
2	Methyl Tert-Butyl Ether	5	U	4.9	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**24**	**J**	**38**	**J**
10	TNMOC ref. to Heptane	**330**		**340**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	**2.1**		**4.6**	
2	Vinyl acetate	5	U	4.9	U
0.5	Vinyl chloride	**1.6**		1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-41-12_091718		OC_SVE_VMP-41-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-13A		1809378-09A	
RL	Dilution Factor	2.29		2.36	
0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.2	U
0.5	1,1,2-Trichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethene	1.1	U	1.2	U
2	1,1-Difluoroethane	4.6	U	4.7	U
2	1,2,4-Trichlorobenzene	4.6	U	4.7	U
0.5	1,2,4-Trimethylbenzene	1.1	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.1	U	1.2	U
0.5	1,2-Dichlorobenzene	1.1	U	1.2	U
0.5	1,2-Dichloroethane	1.1	U	1.2	U
0.5	1,2-Dichloropropane	1.1	U	1.2	U
0.5	1,2-	1.1	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.1	U	1.2	U
0.5	1,3-Dichlorobenzene	1.1	U	1.2	U
0.5	1,4-Dichlorobenzene	1.1	U	1.2	U
2	1,4-Dioxane	4.6	U	4.7	U
2	2-Hexanone	**4.6**		**4.7**	
2	3-Chloropropene	4.6	U	4.7	U
0.5	4-Ethyltoluene	1.1	U	1.2	U
5	Acetone	**85**	**J**	**88**	**J**
0.5	Benzene	1.1	U	1.2	U
0.5	Benzyl chloride	1.1	U	1.2	U
0.5	Bromodichloromethane	1.1	U	1.2	U
0.5	Bromoform	1.1	U	1.2	U
5	Bromomethane	11	U	12	U
2	Carbon disulfide	4.6	U	4.7	U
0.5	Carbon tetrachloride	1.1	U	1.2	U
0.5	Chlorobenzene	1.1	U	1.2	U
2	Chloroethane	4.6	U	4.7	U
0.5	Chloroform	1.1	U	1.2	U
5	Chloromethane	11	U	12	U
0.5	cis-1,2-Dichloroethene	1.1	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Dibromochloromethane	1.1	U	1.2	U
0.5	Ethylbenzene	1.1	U	1.2	U
0.5	Freon 11	1.1	U	1.2	U
0.5	Freon 113	1.1	U	1.2	U
0.5	Freon 12	1.1	U	1.2	U
2	Hexachlorobutadiene	4.6	U	4.7	U
0.5	Hexane (N-Hexane)	1.1	U	**1.2**	
2	Isopropyl Alcohol	4.6	U	4.7	U
0.5	m,p-Xylene	1.1	U	1.2	U
2	Methyl ethyl ketone	**140**	**J**	**110**	**J**
0.5	Methyl isobutyl ketone	1.1	U	1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-41-12_091718		OC_SVE_VMP-41-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-13A		1809378-09A	
RL	Dilution Factor	2.29		2.36	
2	Methyl Tert-Butyl Ether	4.6	U	4.7	U
5	Methylene chloride	11	U	12	U
0.5	o-Xylene	1.1	U	1.2	U
0.5	Styrene	1.1	U	1.2	U
0.5	Tetrachloroethene (PCE)	**16**	**J**	**12**	**J**
10	TNMOC ref. to Heptane	**150**		**170**	
0.5	Toluene	1.1	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.1	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Trichloroethene (TCE)	1.1	U	1.2	U
2	Vinyl acetate	4.6	U	4.7	U
0.5	Vinyl chloride	1.1	U	1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-41-55_091718		OC_SVE_VMP-41-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-04A		1809378-08A	
RL	Dilution Factor	2.29		2.51	
0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.2	U
0.5	1,1,2-Trichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethene	1.1	U	1.2	U
2	1,1-Difluoroethane	4.6	U	5	U
2	1,2,4-Trichlorobenzene	4.6	U	5	U
0.5	1,2,4-Trimethylbenzene	1.1	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.1	U	1.2	U
0.5	1,2-Dichlorobenzene	1.1	U	1.2	U
0.5	1,2-Dichloroethane	1.1	U	1.2	U
0.5	1,2-Dichloropropane	1.1	U	1.2	U
0.5	1,2-	1.1	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.1	U	1.2	U
0.5	1,3-Dichlorobenzene	1.1	U	1.2	U
0.5	1,4-Dichlorobenzene	1.1	U	1.2	U
2	1,4-Dioxane	4.6	U	5	U
2	2-Hexanone	4.6	U	5	U
2	3-Chloropropene	4.6	U	5	U
0.5	4-Ethyltoluene	1.1	U	1.2	U
5	Acetone	**59**	**J**	**79**	**J**
0.5	Benzene	1.1	U	**4.2**	
0.5	Benzyl chloride	1.1	U	1.2	U
0.5	Bromodichloromethane	1.1	U	1.2	U
0.5	Bromoform	1.1	U	1.2	U
5	Bromomethane	11	U	12	U
2	Carbon disulfide	**14**		5	U
0.5	Carbon tetrachloride	1.1	U	1.2	U
0.5	Chlorobenzene	1.1	U	1.2	U
2	Chloroethane	4.6	U	5	U
0.5	Chloroform	1.1	U	1.2	U
5	Chloromethane	11	U	12	U
0.5	cis-1,2-Dichloroethene	1.1	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Dibromochloromethane	1.1	U	1.2	U
0.5	Ethylbenzene	1.1	U	1.2	U
0.5	Freon 11	**1.9**		1.2	U
0.5	Freon 113	**2.7**		1.2	U
0.5	Freon 12	1.1	U	1.2	U
2	Hexachlorobutadiene	4.6	U	5	U
0.5	Hexane (N-Hexane)	1.1	U	**32**	
2	Isopropyl Alcohol	4.6	U	5	U
0.5	m,p-Xylene	1.1	U	1.2	U
2	Methyl ethyl ketone	**100**	**J**	**140**	**J**
0.5	Methyl isobutyl ketone	1.1	U	1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-41-55_091718		OC_SVE_VMP-41-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-04A		1809378-08A	
RL	Dilution Factor	2.29		2.51	
2	Methyl Tert-Butyl Ether	4.6	U	5	U
5	Methylene chloride	11	U	12	U
0.5	o-Xylene	1.1	U	1.2	U
0.5	Styrene	1.1	U	1.2	U
0.5	Tetrachloroethene (PCE)	**12**	**J**	**19**	**J**
10	TNMOC ref. to Heptane	**110**		**360**	
0.5	Toluene	1.1	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.1	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Trichloroethene (TCE)	1.1	U	1.2	U
2	Vinyl acetate	4.6	U	5	U
0.5	Vinyl chloride	1.1	U	1.2	U

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ppbv

	Field Sample ID	OC_SVE_VMP-84-12_091718		OC_SVE_VMP-84-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-11A		1809378-20A	
RL	Dilution Factor	2.4		2.38	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.8	U	4.8	U
2	1,2,4-Trichlorobenzene	4.8	U	4.8	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.8	U	4.8	U
2	2-Hexanone	4.8	U	4.8	U
2	3-Chloropropene	4.8	U	4.8	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**17**	**J**	**14**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.8	U	4.8	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.8	U	4.8	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	**40**		**55**	
0.5	Freon 113	**60**		**81**	
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.8	U	4.8	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol	4.8	U	4.8	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**12**	**J**	**13**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-84-12_091718		OC_SVE_VMP-84-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-11A		1809378-20A	
RL	Dilution Factor	2.4		2.38	
2	Methyl Tert-Butyl Ether	4.8	U	4.8	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**130**	**J**	**190**	**J**
10	TNMOC ref. to Heptane	**350**		**550**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	**24**		**67**	
2	Vinyl acetate	4.8	U	4.8	U
0.5	Vinyl chloride	1.2	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-84-40_091718		OC_SVE_VMP-84-50_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-19A		1809378-18A	
RL	Dilution Factor	2.37		2.28	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.1	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.1	U
0.5	1,1,2-Trichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethene	**4**		**1.5**	
2	1,1-Difluoroethane	4.7	U	4.6	U
2	1,2,4-Trichlorobenzene	4.7	U	4.6	U
0.5	1,2,4-Trimethylbenzene	**6.2**		1.1	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.1	U
0.5	1,2-Dichlorobenzene	1.2	U	1.1	U
0.5	1,2-Dichloroethane	1.2	U	1.1	U
0.5	1,2-Dichloropropane	1.2	U	1.1	U
0.5	1,2-	1.2	U	1.1	U
0.5	1,3,5-Trimethylbenzene	**1.4**		1.1	U
0.5	1,3-Dichlorobenzene	1.2	U	1.1	U
0.5	1,4-Dichlorobenzene	1.2	U	1.1	U
2	1,4-Dioxane	4.7	U	4.6	U
2	2-Hexanone	4.7	U	4.6	U
2	3-Chloropropene	4.7	U	4.6	U
0.5	4-Ethyltoluene	**2.7**		1.1	U
5	Acetone	**16**	**J**	**15**	**J**
0.5	Benzene	1.2	U	1.1	U
0.5	Benzyl chloride	1.2	U	1.1	U
0.5	Bromodichloromethane	1.2	U	1.1	U
0.5	Bromoform	1.2	U	1.1	U
5	Bromomethane	12	U	11	U
2	Carbon disulfide	4.7	U	4.6	U
0.5	Carbon tetrachloride	1.2	U	1.1	U
0.5	Chlorobenzene	1.2	U	1.1	U
2	Chloroethane	4.7	U	4.6	U
0.5	Chloroform	1.2	U	1.1	U
5	Chloromethane	12	U	11	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.1	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Dibromochloromethane	1.2	U	1.1	U
0.5	Ethylbenzene	1.2	U	1.1	U
0.5	Freon 11	**32**		**39**	
0.5	Freon 113	**30**		**34**	
0.5	Freon 12	1.2	U	1.1	U
2	Hexachlorobutadiene	4.7	U	4.6	U
0.5	Hexane (N-Hexane)	1.2	U	1.1	U
2	Isopropyl Alcohol	4.7	U	4.6	U
0.5	m,p-Xylene	1.2	U	1.1	U
2	Methyl ethyl ketone	**16**	**J**	**19**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.1	U

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ppbv

	Field Sample ID	OC_SVE_VMP-84-40_091718		OC_SVE_VMP-84-50_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-19A		1809378-18A	
RL	Dilution Factor	2.37		2.28	
2	Methyl Tert-Butyl Ether	4.7	U	4.6	U
5	Methylene chloride	12	U	11	U
0.5	o-Xylene	1.2	U	1.1	U
0.5	Styrene	1.2	U	1.1	U
0.5	Tetrachloroethene (PCE)	**120**	**J**	**84**	**J**
10	TNMOC ref. to Heptane	**630**		**290**	
0.5	Toluene	1.2	U	1.1	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.1	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Trichloroethene (TCE)	**20**		**9.7**	
2	Vinyl acetate	4.7	U	4.6	U
0.5	Vinyl chloride	1.2	U	1.1	U

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	Field Sample ID	OC_SVE_VMP-84-6_091718		OC_SVE_VMP-84-60_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-15A		1809378-16A	
RL	Dilution Factor	2.33		2.29	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.1	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.1	U
0.5	1,1,2-Trichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethene	1.2	U	**4.2**	
2	1,1-Difluoroethane	4.7	U	**23**	
2	1,2,4-Trichlorobenzene	4.7	U	4.6	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.1	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.1	U
0.5	1,2-Dichlorobenzene	1.2	U	1.1	U
0.5	1,2-Dichloroethane	1.2	U	1.1	U
0.5	1,2-Dichloropropane	1.2	U	1.1	U
0.5	1,2-	1.2	U	1.1	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.1	U
0.5	1,3-Dichlorobenzene	1.2	U	1.1	U
0.5	1,4-Dichlorobenzene	1.2	U	1.1	U
2	1,4-Dioxane	4.7	U	4.6	U
2	2-Hexanone	4.7	U	4.6	U
2	3-Chloropropene	4.7	U	4.6	U
0.5	4-Ethyltoluene	1.2	U	1.1	U
5	Acetone	**15**	**J**	**24**	**J**
0.5	Benzene	1.2	U	1.1	U
0.5	Benzyl chloride	1.2	U	1.1	U
0.5	Bromodichloromethane	1.2	U	1.1	U
0.5	Bromoform	1.2	U	1.1	U
5	Bromomethane	12	U	11	U
2	Carbon disulfide	4.7	U	4.6	U
0.5	Carbon tetrachloride	1.2	U	1.1	U
0.5	Chlorobenzene	1.2	U	1.1	U
2	Chloroethane	4.7	U	4.6	U
0.5	Chloroform	1.2	U	1.1	U
5	Chloromethane	12	U	11	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.1	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Dibromochloromethane	1.2	U	1.1	U
0.5	Ethylbenzene	1.2	U	1.1	U
0.5	Freon 11	**55**		**49**	
0.5	Freon 113	**79**		**31**	
0.5	Freon 12	1.2	U	1.1	U
2	Hexachlorobutadiene	4.7	U	4.6	U
0.5	Hexane (N-Hexane)	1.2	U	1.1	U
2	Isopropyl Alcohol	4.7	U	4.6	U
0.5	m,p-Xylene	1.2	U	1.1	U
2	Methyl ethyl ketone	**7.8**	**J**	**28**	**J**
0.5	Methyl isobutyl ketone	1.2	U	1.1	U

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ppbv

	Field Sample ID	OC_SVE_VMP-84-6_091718		OC_SVE_VMP-84-60_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-15A		1809378-16A	
RL	Dilution Factor	2.33		2.29	
2	Methyl Tert-Butyl Ether	4.7	U	4.6	U
5	Methylene chloride	12	U	11	U
0.5	o-Xylene	1.2	U	1.1	U
0.5	Styrene	1.2	U	1.1	U
0.5	Tetrachloroethene (PCE)	**210**	**J**	**61**	**J**
10	TNMOC ref. to Heptane	**620**		**330**	
0.5	Toluene	1.2	U	1.1	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.1	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Trichloroethene (TCE)	**93**		**7.7**	
2	Vinyl acetate	4.7	U	4.6	U
0.5	Vinyl chloride	1.2	U	1.1	U

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Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-23_091718		OC_SVE_VMP-25_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-06A		1809378-03A	
RL	Dilution Factor	2.48		2.46	
2.7	1,1,1-Trichloroethane (TCA)	6.8	U	6.7	U
3.4	1,1,2,2-Tetrachloroethane	8.5	U	8.4	U
2.7	1,1,2-Trichloroethane	6.8	U	6.7	U
2	1,1-Dichloroethane	5	U	5	U
2	1,1-Dichloroethene	4.9	U	4.9	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	37	U	36	U
2.4	1,2,4-Trimethylbenzene	6.1	U	6	U
3.8	1,2-Dibromoethane (EDB)	9.5	U	9.4	U
3	1,2-Dichlorobenzene	7.4	U	7.4	U
2	1,2-Dichloroethane	5	U	5	U
2.3	1,2-Dichloropropane	5.7	U	5.7	U
3.5	1,2-	8.7	U	8.6	U
2.4	1,3,5-Trimethylbenzene	6.1	U	6	U
3	1,3-Dichlorobenzene	7.4	U	7.4	U
3	1,4-Dichlorobenzene	7.4	U	7.4	U
7.2	1,4-Dioxane	18	U	18	U
8.2	2-Hexanone	**25**		20	U
6.3	3-Chloropropene	16	U	15	U
2.4	4-Ethyltoluene	6.1	U	6	U
12	Acetone	**280**	**J**	**950**	**J**
1.6	Benzene	4	U	3.9	U
2.6	Benzyl chloride	6.4	U	6.4	U
3.4	Bromodichloromethane	8.3	U	8.2	U
5.2	Bromoform	13	U	13	U
19	Bromomethane	48	U	48	U
6.2	Carbon disulfide	15	U	**38**	
3.1	Carbon tetrachloride	7.8	U	7.7	U
2.3	Chlorobenzene	5.7	U	5.7	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	6	U	6	U
10	Chloromethane	26	U	25	U
2	cis-1,2-Dichloroethene	4.9	U	4.9	U
2.3	cis-1,3-Dichloropropene	5.6	U	5.6	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.4	U	5.3	U
2.8	Freon 11	7	U	6.9	U
3.8	Freon 113	9.5	U	9.4	U
2.5	Freon 12	6.1	U	6.1	U
21	Hexachlorobutadiene	53	U	52	U
1.8	Hexane (N-Hexane)	4.4	U	4.3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-23_091718		OC_SVE_VMP-25_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-06A		1809378-03A	
RL	Dilution Factor	2.48		2.46	
4.9	Isopropyl Alcohol	12	U	12	U
2.2	m,p-Xylene	5.4	U	5.3	U
5.9	Methyl ethyl ketone	**620**	**J**	**5200**	**J**
2	Methyl isobutyl ketone	5.1	U	5	U
7.2	Methyl Tert-Butyl Ether	18	U	18	U
17	Methylene chloride	43	U	43	U
2.2	o-Xylene	5.4	U	5.3	U
2.1	Styrene	5.3	U	5.2	U
3.4	Tetrachloroethene (PCE)	**340**	**J**	**140**	**J**
41	TNMOC ref. to Heptane	**940**		**7000**	
1.9	Toluene	4.7	U	4.6	U
2	trans-1,2-Dichloroethene	4.9	U	4.9	U
2.3	trans-1,3-Dichloropropene	5.6	U	5.6	U
2.7	Trichloroethene (TCE)	**9.1**		6.6	U
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	3.2	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-39-12_091718		OC_SVE_VMP-39-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-12A		1809378-10A	
RL	Dilution Factor	2.25		2.27	
2.7	1,1,1-Trichloroethane (TCA)	6.1	U	6.2	U
3.4	1,1,2,2-Tetrachloroethane	7.7	U	7.8	U
2.7	1,1,2-Trichloroethane	6.1	U	6.2	U
2	1,1-Dichloroethane	4.6	U	4.6	U
2	1,1-Dichloroethene	**5.6**		4.5	U
5.4	1,1-Difluoroethane	**680**		**220**	
15	1,2,4-Trichlorobenzene	33	U	34	U
2.4	1,2,4-Trimethylbenzene	5.5	U	5.6	U
3.8	1,2-Dibromoethane (EDB)	8.6	U	8.7	U
3	1,2-Dichlorobenzene	6.8	U	6.8	U
2	1,2-Dichloroethane	4.6	U	4.6	U
2.3	1,2-Dichloropropane	5.2	U	5.2	U
3.5	1,2-	7.9	U	7.9	U
2.4	1,3,5-Trimethylbenzene	5.5	U	5.6	U
3	1,3-Dichlorobenzene	6.8	U	6.8	U
3	1,4-Dichlorobenzene	6.8	U	6.8	U
7.2	1,4-Dioxane	16	U	16	U
8.2	2-Hexanone	18	U	18	U
6.3	3-Chloropropene	14	U	14	U
2.4	4-Ethyltoluene	5.5	U	5.6	U
12	Acetone	**52**	**J**	**58**	**J**
1.6	Benzene	3.6	U	3.6	U
2.6	Benzyl chloride	5.8	U	5.9	U
3.4	Bromodichloromethane	7.5	U	7.6	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	44	U	44	U
6.2	Carbon disulfide	14	U	14	U
3.1	Carbon tetrachloride	7.1	U	7.1	U
2.3	Chlorobenzene	5.2	U	5.2	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.5	U	5.5	U
10	Chloromethane	23	U	23	U
2	cis-1,2-Dichloroethene	4.5	U	4.5	U
2.3	cis-1,3-Dichloropropene	5.1	U	5.2	U
4.2	Dibromochloromethane	9.6	U	9.7	U
2.2	Ethylbenzene	4.9	U	4.9	U
2.8	Freon 11	**17**		6.4	U
3.8	Freon 113	**30**		8.7	U
2.5	Freon 12	5.6	U	5.6	U
21	Hexachlorobutadiene	48	U	48	U
1.8	Hexane (N-Hexane)	4	U	4	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-39-12_091718		OC_SVE_VMP-39-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-12A		1809378-10A	
RL	Dilution Factor	2.25		2.27	
4.9	Isopropyl Alcohol	11	U	**39**	
2.2	m,p-Xylene	**5.8**		4.9	U
5.9	Methyl ethyl ketone	**16**	**J**	**20**	**J**
2	Methyl isobutyl ketone	4.6	U	4.6	U
7.2	Methyl Tert-Butyl Ether	16	U	16	U
17	Methylene chloride	39	U	39	U
2.2	o-Xylene	4.9	U	4.9	U
2.1	Styrene	4.8	U	4.8	U
3.4	Tetrachloroethene (PCE)	**440**	**J**	**180**	**J**
41	TNMOC ref. to Heptane	**700**		**350**	
1.9	Toluene	**6.6**		**5.5**	
2	trans-1,2-Dichloroethene	4.5	U	4.5	U
2.3	trans-1,3-Dichloropropene	5.1	U	5.2	U
2.7	Trichloroethene (TCE)	**20**		**6.2**	
7	Vinyl acetate	16	U	16	U
1.3	Vinyl chloride	2.9	U	2.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-39-55_091718		OC_SVE_VMP-39-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-17A		1809378-14A	
RL	Dilution Factor	46.8		2.19	
2.7	1,1,1-Trichloroethane (TCA)	130	U	6	U
3.4	1,1,2,2-Tetrachloroethane	160	U	7.5	U
2.7	1,1,2-Trichloroethane	130	U	6	U
2	1,1-Dichloroethane	95	U	4.4	U
2	1,1-Dichloroethene	**300**		**54**	
5.4	1,1-Difluoroethane	**380000**	**E**	**220**	
15	1,2,4-Trichlorobenzene	690	U	32	U
2.4	1,2,4-Trimethylbenzene	120	U	5.4	U
3.8	1,2-Dibromoethane (EDB)	180	U	8.4	U
3	1,2-Dichlorobenzene	140	U	6.6	U
2	1,2-Dichloroethane	95	U	4.4	U
2.3	1,2-Dichloropropane	110	U	5.1	U
3.5	1,2-	160	U	7.6	U
2.4	1,3,5-Trimethylbenzene	120	U	5.4	U
3	1,3-Dichlorobenzene	140	U	6.6	U
3	1,4-Dichlorobenzene	140	U	6.6	U
7.2	1,4-Dioxane	340	U	16	U
8.2	2-Hexanone	380	U	18	U
6.3	3-Chloropropene	290	U	14	U
2.4	4-Ethyltoluene	120	U	5.4	U
12	Acetone	560	UJ	**65**	**J**
1.6	Benzene	75	U	**4.2**	
2.6	Benzyl chloride	120	U	5.7	U
3.4	Bromodichloromethane	160	U	7.3	U
5.2	Bromoform	240	U	11	U
19	Bromomethane	910	U	42	U
6.2	Carbon disulfide	290	U	14	U
3.1	Carbon tetrachloride	150	U	6.9	U
2.3	Chlorobenzene	110	U	5	U
5.3	Chloroethane	250	U	12	U
2.4	Chloroform	110	U	5.3	U
10	Chloromethane	480	U	23	U
2	cis-1,2-Dichloroethene	93	U	4.3	U
2.3	cis-1,3-Dichloropropene	110	U	5	U
4.2	Dibromochloromethane	200	U	9.3	U
2.2	Ethylbenzene	100	U	4.8	U
2.8	Freon 11	**150**		**140**	
3.8	Freon 113	**280**		**300**	
2.5	Freon 12	120	U	5.4	U
21	Hexachlorobutadiene	1000	U	47	U
1.8	Hexane (N-Hexane)	82	U	3.8	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-39-55_091718		OC_SVE_VMP-39-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-17A		1809378-14A	
RL	Dilution Factor	46.8		2.19	
4.9	Isopropyl Alcohol	230	U	11	U
2.2	m,p-Xylene	100	U	4.8	U
5.9	Methyl ethyl ketone	280	UJ	**22**	**J**
2	Methyl isobutyl ketone	96	U	4.5	U
7.2	Methyl Tert-Butyl Ether	340	U	16	U
17	Methylene chloride	810	U	38	U
2.2	o-Xylene	100	U	4.8	U
2.1	Styrene	100	U	4.7	U
3.4	Tetrachloroethene (PCE)	**3900**	**J**	**2900**	**J**
41	TNMOC ref. to Heptane	**70000**		**4100**	
1.9	Toluene	88	U	4.1	U
2	trans-1,2-Dichloroethene	93	U	4.3	U
2.3	trans-1,3-Dichloropropene	110	U	5	U
2.7	Trichloroethene (TCE)	**1100**		**210**	
7	Vinyl acetate	330	U	15	U
1.3	Vinyl chloride	60	U	2.8	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-40-12_091718		OC_SVE_VMP-40-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-02A		1809378-01A	
RL	Dilution Factor	2.51		2.46	
2.7	1,1,1-Trichloroethane (TCA)	6.8	U	6.7	U
3.4	1,1,2,2-Tetrachloroethane	8.6	U	8.4	U
2.7	1,1,2-Trichloroethane	6.8	U	6.7	U
2	1,1-Dichloroethane	5.1	U	5	U
2	1,1-Dichloroethene	5	U	4.9	U
5.4	1,1-Difluoroethane	14	U	13	U
15	1,2,4-Trichlorobenzene	37	U	36	U
2.4	1,2,4-Trimethylbenzene	6.2	U	6	U
3.8	1,2-Dibromoethane (EDB)	9.6	U	9.4	U
3	1,2-Dichlorobenzene	7.5	U	7.4	U
2	1,2-Dichloroethane	5.1	U	5	U
2.3	1,2-Dichloropropane	5.8	U	5.7	U
3.5	1,2-	8.8	U	8.6	U
2.4	1,3,5-Trimethylbenzene	6.2	U	6	U
3	1,3-Dichlorobenzene	7.5	U	7.4	U
3	1,4-Dichlorobenzene	7.5	U	7.4	U
7.2	1,4-Dioxane	18	U	18	U
8.2	2-Hexanone	**38**		**26**	
6.3	3-Chloropropene	16	U	15	U
2.4	4-Ethyltoluene	6.2	U	6	U
12	Acetone	**400**	**J**	**260**	**J**
1.6	Benzene	4	U	3.9	U
2.6	Benzyl chloride	6.5	U	6.4	U
3.4	Bromodichloromethane	8.4	U	8.2	U
5.2	Bromoform	13	U	13	U
19	Bromomethane	49	U	48	U
6.2	Carbon disulfide	16	U	15	U
3.1	Carbon tetrachloride	7.9	U	7.7	U
2.3	Chlorobenzene	5.8	U	5.7	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	6.1	U	6	U
10	Chloromethane	26	U	25	U
2	cis-1,2-Dichloroethene	5	U	4.9	U
2.3	cis-1,3-Dichloropropene	5.7	U	5.6	U
4.2	Dibromochloromethane	11	U	10	U
2.2	Ethylbenzene	5.4	U	5.3	U
2.8	Freon 11	7	U	6.9	U
3.8	Freon 113	9.6	U	9.4	U
2.5	Freon 12	6.2	U	6.1	U
21	Hexachlorobutadiene	54	U	52	U
1.8	Hexane (N-Hexane)	4.4	U	4.3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-40-12_091718		OC_SVE_VMP-40-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-02A		1809378-01A	
RL	Dilution Factor	2.51		2.46	
4.9	Isopropyl Alcohol	12	U	12	U
2.2	m,p-Xylene	5.4	U	5.3	U
5.9	Methyl ethyl ketone	**860**	**J**	**590**	**J**
2	Methyl isobutyl ketone	5.1	U	5	U
7.2	Methyl Tert-Butyl Ether	18	U	18	U
17	Methylene chloride	44	U	43	U
2.2	o-Xylene	5.4	U	5.3	U
2.1	Styrene	5.3	U	5.2	U
3.4	Tetrachloroethene (PCE)	**220**	**J**	**160**	**J**
41	TNMOC ref. to Heptane	**1300**		**900**	
1.9	Toluene	4.7	U	4.6	U
2	trans-1,2-Dichloroethene	5	U	4.9	U
2.3	trans-1,3-Dichloropropene	5.7	U	5.6	U
2.7	Trichloroethene (TCE)	**9.8**		**9.8**	
7	Vinyl acetate	18	U	17	U
1.3	Vinyl chloride	3.2	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-40-55_091718		OC_SVE_VMP-40-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-05A		1809378-07A	
RL	Dilution Factor	2.48		2.45	
2.7	1,1,1-Trichloroethane (TCA)	6.8	U	6.7	U
3.4	1,1,2,2-Tetrachloroethane	8.5	U	8.4	U
2.7	1,1,2-Trichloroethane	6.8	U	6.7	U
2	1,1-Dichloroethane	5	U	5	U
2	1,1-Dichloroethene	4.9	U	4.8	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	37	U	36	U
2.4	1,2,4-Trimethylbenzene	6.1	U	6	U
3.8	1,2-Dibromoethane (EDB)	9.5	U	9.4	U
3	1,2-Dichlorobenzene	7.4	U	7.4	U
2	1,2-Dichloroethane	5	U	5	U
2.3	1,2-Dichloropropane	5.7	U	5.7	U
3.5	1,2-	8.7	U	8.6	U
2.4	1,3,5-Trimethylbenzene	6.1	U	6	U
3	1,3-Dichlorobenzene	7.4	U	7.4	U
3	1,4-Dichlorobenzene	7.4	U	7.4	U
7.2	1,4-Dioxane	18	U	18	U
8.2	2-Hexanone	**24**		**43**	
6.3	3-Chloropropene	16	U	15	U
2.4	4-Ethyltoluene	6.1	U	6	U
12	Acetone	**300**	**J**	**330**	**J**
1.6	Benzene	4	U	3.9	U
2.6	Benzyl chloride	6.4	U	6.3	U
3.4	Bromodichloromethane	8.3	U	8.2	U
5.2	Bromoform	13	U	13	U
19	Bromomethane	48	U	48	U
6.2	Carbon disulfide	**670**		15	U
3.1	Carbon tetrachloride	7.8	U	7.7	U
2.3	Chlorobenzene	5.7	U	5.6	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	6	U	6	U
10	Chloromethane	**60**		25	U
2	cis-1,2-Dichloroethene	4.9	U	**6.7**	
2.3	cis-1,3-Dichloropropene	5.6	U	5.6	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.4	U	5.3	U
2.8	Freon 11	7	U	6.9	U
3.8	Freon 113	9.5	U	9.4	U
2.5	Freon 12	6.1	U	6	U
21	Hexachlorobutadiene	53	U	52	U
1.8	Hexane (N-Hexane)	4.4	U	4.3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-40-55_091718		OC_SVE_VMP-40-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-05A		1809378-07A	
RL	Dilution Factor	2.48		2.45	
4.9	Isopropyl Alcohol	12	U	12	U
2.2	m,p-Xylene	5.4	U	5.3	U
5.9	Methyl ethyl ketone	**630**	**J**	**860**	**J**
2	Methyl isobutyl ketone	5.1	U	5	U
7.2	Methyl Tert-Butyl Ether	18	U	18	U
17	Methylene chloride	43	U	42	U
2.2	o-Xylene	5.4	U	5.3	U
2.1	Styrene	5.3	U	5.2	U
3.4	Tetrachloroethene (PCE)	**170**	**J**	**260**	**J**
41	TNMOC ref. to Heptane	**1300**		**1400**	
1.9	Toluene	4.7	U	4.6	U
2	trans-1,2-Dichloroethene	4.9	U	4.8	U
2.3	trans-1,3-Dichloropropene	5.6	U	5.6	U
2.7	Trichloroethene (TCE)	**11**		**25**	
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	**4.1**		3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-41-12_091718		OC_SVE_VMP-41-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-13A		1809378-09A	
RL	Dilution Factor	2.29		2.36	
2.7	1,1,1-Trichloroethane (TCA)	6.2	U	6.4	U
3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.1	U
2.7	1,1,2-Trichloroethane	6.2	U	6.4	U
2	1,1-Dichloroethane	4.6	U	4.8	U
2	1,1-Dichloroethene	4.5	U	4.7	U
5.4	1,1-Difluoroethane	12	U	13	U
15	1,2,4-Trichlorobenzene	34	U	35	U
2.4	1,2,4-Trimethylbenzene	5.6	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	8.8	U	9.1	U
3	1,2-Dichlorobenzene	6.9	U	7.1	U
2	1,2-Dichloroethane	4.6	U	4.8	U
2.3	1,2-Dichloropropane	5.3	U	5.4	U
3.5	1,2-	8	U	8.2	U
2.4	1,3,5-Trimethylbenzene	5.6	U	5.8	U
3	1,3-Dichlorobenzene	6.9	U	7.1	U
3	1,4-Dichlorobenzene	6.9	U	7.1	U
7.2	1,4-Dioxane	16	U	17	U
8.2	2-Hexanone	**19**		**19**	
6.3	3-Chloropropene	14	U	15	U
2.4	4-Ethyltoluene	5.6	U	5.8	U
12	Acetone	**200**	**J**	**210**	**J**
1.6	Benzene	3.6	U	3.8	U
2.6	Benzyl chloride	5.9	U	6.1	U
3.4	Bromodichloromethane	7.7	U	7.9	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	44	U	46	U
6.2	Carbon disulfide	14	U	15	U
3.1	Carbon tetrachloride	7.2	U	7.4	U
2.3	Chlorobenzene	5.3	U	5.4	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.6	U	5.8	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.5	U	4.7	U
2.3	cis-1,3-Dichloropropene	5.2	U	5.4	U
4.2	Dibromochloromethane	9.8	U	10	U
2.2	Ethylbenzene	5	U	5.1	U
2.8	Freon 11	6.4	U	6.6	U
3.8	Freon 113	8.8	U	9	U
2.5	Freon 12	5.7	U	5.8	U
21	Hexachlorobutadiene	49	U	50	U
1.8	Hexane (N-Hexane)	4	U	**4.4**	

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-41-12_091718		OC_SVE_VMP-41-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-13A		1809378-09A	
RL	Dilution Factor	2.29		2.36	
4.9	Isopropyl Alcohol	11	U	12	U
2.2	m,p-Xylene	5	U	5.1	U
5.9	Methyl ethyl ketone	**410**	**J**	**310**	**J**
2	Methyl isobutyl ketone	4.7	U	4.8	U
7.2	Methyl Tert-Butyl Ether	16	U	17	U
17	Methylene chloride	40	U	41	U
2.2	o-Xylene	5	U	5.1	U
2.1	Styrene	4.9	U	5	U
3.4	Tetrachloroethene (PCE)	**110**	**J**	**82**	**J**
41	TNMOC ref. to Heptane	**610**		**700**	
1.9	Toluene	4.3	U	4.4	U
2	trans-1,2-Dichloroethene	4.5	U	4.7	U
2.3	trans-1,3-Dichloropropene	5.2	U	5.4	U
2.7	Trichloroethene (TCE)	6.2	U	6.3	U
7	Vinyl acetate	16	U	17	U
1.3	Vinyl chloride	2.9	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-41-55_091718		OC_SVE_VMP-41-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-04A		1809378-08A	
RL	Dilution Factor	2.29		2.51	
2.7	1,1,1-Trichloroethane (TCA)	6.2	U	6.8	U
3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.6	U
2.7	1,1,2-Trichloroethane	6.2	U	6.8	U
2	1,1-Dichloroethane	4.6	U	5.1	U
2	1,1-Dichloroethene	4.5	U	5	U
5.4	1,1-Difluoroethane	12	U	14	U
15	1,2,4-Trichlorobenzene	34	U	37	U
2.4	1,2,4-Trimethylbenzene	5.6	U	6.2	U
3.8	1,2-Dibromoethane (EDB)	8.8	U	9.6	U
3	1,2-Dichlorobenzene	6.9	U	7.5	U
2	1,2-Dichloroethane	4.6	U	5.1	U
2.3	1,2-Dichloropropane	5.3	U	5.8	U
3.5	1,2-	8	U	8.8	U
2.4	1,3,5-Trimethylbenzene	5.6	U	6.2	U
3	1,3-Dichlorobenzene	6.9	U	7.5	U
3	1,4-Dichlorobenzene	6.9	U	7.5	U
7.2	1,4-Dioxane	16	U	18	U
8.2	2-Hexanone	19	U	20	U
6.3	3-Chloropropene	14	U	16	U
2.4	4-Ethyltoluene	5.6	U	6.2	U
12	Acetone	**140**	**J**	**190**	**J**
1.6	Benzene	3.6	U	**14**	
2.6	Benzyl chloride	5.9	U	6.5	U
3.4	Bromodichloromethane	7.7	U	8.4	U
5.2	Bromoform	12	U	13	U
19	Bromomethane	44	U	49	U
6.2	Carbon disulfide	**44**		16	U
3.1	Carbon tetrachloride	7.2	U	7.9	U
2.3	Chlorobenzene	5.3	U	5.8	U
5.3	Chloroethane	12	U	13	U
2.4	Chloroform	5.6	U	6.1	U
10	Chloromethane	24	U	26	U
2	cis-1,2-Dichloroethene	4.5	U	5	U
2.3	cis-1,3-Dichloropropene	5.2	U	5.7	U
4.2	Dibromochloromethane	9.8	U	11	U
2.2	Ethylbenzene	5	U	5.4	U
2.8	Freon 11	**11**		7	U
3.8	Freon 113	**21**		9.6	U
2.5	Freon 12	5.7	U	6.2	U
21	Hexachlorobutadiene	49	U	54	U
1.8	Hexane (N-Hexane)	4	U	**110**	

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-41-55_091718		OC_SVE_VMP-41-6_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-04A		1809378-08A	
RL	Dilution Factor	2.29		2.51	
4.9	Isopropyl Alcohol	11	U	12	U
2.2	m,p-Xylene	5	U	5.4	U
5.9	Methyl ethyl ketone	**300**	**J**	**400**	**J**
2	Methyl isobutyl ketone	4.7	U	5.1	U
7.2	Methyl Tert-Butyl Ether	16	U	18	U
17	Methylene chloride	40	U	44	U
2.2	o-Xylene	5	U	5.4	U
2.1	Styrene	4.9	U	5.3	U
3.4	Tetrachloroethene (PCE)	**81**	**J**	**130**	**J**
41	TNMOC ref. to Heptane	**450**		**1500**	
1.9	Toluene	4.3	U	4.7	U
2	trans-1,2-Dichloroethene	4.5	U	5	U
2.3	trans-1,3-Dichloropropene	5.2	U	5.7	U
2.7	Trichloroethene (TCE)	6.2	U	6.7	U
7	Vinyl acetate	16	U	18	U
1.3	Vinyl chloride	2.9	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-12_091718		OC_SVE_VMP-84-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-11A		1809378-20A	
RL	Dilution Factor	2.4		2.38	
2.7	1,1,1-Trichloroethane (TCA)	6.5	U	6.5	U
3.4	1,1,2,2-Tetrachloroethane	8.2	U	8.2	U
2.7	1,1,2-Trichloroethane	6.5	U	6.5	U
2	1,1-Dichloroethane	4.8	U	4.8	U
2	1,1-Dichloroethene	4.8	U	4.7	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	36	U	35	U
2.4	1,2,4-Trimethylbenzene	5.9	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	9.2	U	9.1	U
3	1,2-Dichlorobenzene	7.2	U	7.2	U
2	1,2-Dichloroethane	4.8	U	4.8	U
2.3	1,2-Dichloropropane	5.5	U	5.5	U
3.5	1,2-	8.4	U	8.3	U
2.4	1,3,5-Trimethylbenzene	5.9	U	5.8	U
3	1,3-Dichlorobenzene	7.2	U	7.2	U
3	1,4-Dichlorobenzene	7.2	U	7.2	U
7.2	1,4-Dioxane	17	U	17	U
8.2	2-Hexanone	20	U	19	U
6.3	3-Chloropropene	15	U	15	U
2.4	4-Ethyltoluene	5.9	U	5.8	U
12	Acetone	**41**	**J**	**32**	**J**
1.6	Benzene	3.8	U	3.8	U
2.6	Benzyl chloride	6.2	U	6.2	U
3.4	Bromodichloromethane	8	U	8	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	47	U	46	U
6.2	Carbon disulfide	15	U	15	U
3.1	Carbon tetrachloride	7.6	U	7.5	U
2.3	Chlorobenzene	5.5	U	5.5	U
5.3	Chloroethane	13	U	12	U
2.4	Chloroform	5.8	U	5.8	U
10	Chloromethane	25	U	24	U
2	cis-1,2-Dichloroethene	4.8	U	4.7	U
2.3	cis-1,3-Dichloropropene	5.4	U	5.4	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.2	U	5.2	U
2.8	Freon 11	**220**		**310**	
3.8	Freon 113	**460**		**620**	
2.5	Freon 12	5.9	U	5.9	U
21	Hexachlorobutadiene	51	U	51	U
1.8	Hexane (N-Hexane)	4.2	U	4.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-12_091718		OC_SVE_VMP-84-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-11A		1809378-20A	
RL	Dilution Factor	2.4		2.38	
4.9	Isopropyl Alcohol	12	U	12	U
2.2	m,p-Xylene	5.2	U	5.2	U
5.9	Methyl ethyl ketone	**37**	**J**	**40**	**J**
2	Methyl isobutyl ketone	4.9	U	4.9	U
7.2	Methyl Tert-Butyl Ether	17	U	17	U
17	Methylene chloride	42	U	41	U
2.2	o-Xylene	5.2	U	5.2	U
2.1	Styrene	5.1	U	5.1	U
3.4	Tetrachloroethene (PCE)	**860**	**J**	**1300**	**J**
41	TNMOC ref. to Heptane	**1400**		**2200**	
1.9	Toluene	4.5	U	4.5	U
2	trans-1,2-Dichloroethene	4.8	U	4.7	U
2.3	trans-1,3-Dichloropropene	5.4	U	5.4	U
2.7	Trichloroethene (TCE)	**130**		**360**	
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	3.1	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-40_091718		OC_SVE_VMP-84-50_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-19A		1809378-18A	
RL	Dilution Factor	2.37		2.28	
2.7	1,1,1-Trichloroethane (TCA)	6.5	U	6.2	U
3.4	1,1,2,2-Tetrachloroethane	8.1	U	7.8	U
2.7	1,1,2-Trichloroethane	6.5	U	6.2	U
2	1,1-Dichloroethane	4.8	U	4.6	U
2	1,1-Dichloroethene	**16**		**5.9**	
5.4	1,1-Difluoroethane	13	U	12	U
15	1,2,4-Trichlorobenzene	35	U	34	U
2.4	1,2,4-Trimethylbenzene	**30**		5.6	U
3.8	1,2-Dibromoethane (EDB)	9.1	U	8.8	U
3	1,2-Dichlorobenzene	7.1	U	6.8	U
2	1,2-Dichloroethane	4.8	U	4.6	U
2.3	1,2-Dichloropropane	5.5	U	5.3	U
3.5	1,2-	8.3	U	8	U
2.4	1,3,5-Trimethylbenzene	**7**		5.6	U
3	1,3-Dichlorobenzene	7.1	U	6.8	U
3	1,4-Dichlorobenzene	7.1	U	6.8	U
7.2	1,4-Dioxane	17	U	16	U
8.2	2-Hexanone	19	U	19	U
6.3	3-Chloropropene	15	U	14	U
2.4	4-Ethyltoluene	**13**		5.6	U
12	Acetone	**38**	**J**	**35**	**J**
1.6	Benzene	3.8	U	3.6	U
2.6	Benzyl chloride	6.1	U	5.9	U
3.4	Bromodichloromethane	7.9	U	7.6	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	46	U	44	U
6.2	Carbon disulfide	15	U	14	U
3.1	Carbon tetrachloride	7.4	U	7.2	U
2.3	Chlorobenzene	5.4	U	5.2	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.8	U	5.6	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.7	U	4.5	U
2.3	cis-1,3-Dichloropropene	5.4	U	5.2	U
4.2	Dibromochloromethane	10	U	9.7	U
2.2	Ethylbenzene	5.1	U	4.9	U
2.8	Freon 11	**180**		**220**	
3.8	Freon 113	**230**		**260**	
2.5	Freon 12	5.9	U	5.6	U
21	Hexachlorobutadiene	50	U	49	U
1.8	Hexane (N-Hexane)	4.2	U	4	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-40_091718		OC_SVE_VMP-84-50_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-19A		1809378-18A	
RL	Dilution Factor	2.37		2.28	
4.9	Isopropyl Alcohol	12	U	11	U
2.2	m,p-Xylene	5.1	U	5	U
5.9	Methyl ethyl ketone	**47**	**J**	**56**	**J**
2	Methyl isobutyl ketone	4.8	U	4.7	U
7.2	Methyl Tert-Butyl Ether	17	U	16	U
17	Methylene chloride	41	U	40	U
2.2	o-Xylene	5.1	U	5	U
2.1	Styrene	5	U	4.8	U
3.4	Tetrachloroethene (PCE)	**810**	**J**	**570**	**J**
41	TNMOC ref. to Heptane	**2600**		**1200**	
1.9	Toluene	4.5	U	4.3	U
2	trans-1,2-Dichloroethene	4.7	U	4.5	U
2.3	trans-1,3-Dichloropropene	5.4	U	5.2	U
2.7	Trichloroethene (TCE)	**100**		**52**	
7	Vinyl acetate	17	U	16	U
1.3	Vinyl chloride	3	U	2.9	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-6_091718		OC_SVE_VMP-84-60_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-15A		1809378-16A	
RL	Dilution Factor	2.33		2.29	
2.7	1,1,1-Trichloroethane (TCA)	6.4	U	6.2	U
3.4	1,1,2,2-Tetrachloroethane	8	U	7.9	U
2.7	1,1,2-Trichloroethane	6.4	U	6.2	U
2	1,1-Dichloroethane	4.7	U	4.6	U
2	1,1-Dichloroethene	4.6	U	**17**	
5.4	1,1-Difluoroethane	12	U	**61**	
15	1,2,4-Trichlorobenzene	34	U	34	U
2.4	1,2,4-Trimethylbenzene	5.7	U	5.6	U
3.8	1,2-Dibromoethane (EDB)	9	U	8.8	U
3	1,2-Dichlorobenzene	7	U	6.9	U
2	1,2-Dichloroethane	4.7	U	4.6	U
2.3	1,2-Dichloropropane	5.4	U	5.3	U
3.5	1,2-	8.1	U	8	U
2.4	1,3,5-Trimethylbenzene	5.7	U	5.6	U
3	1,3-Dichlorobenzene	7	U	6.9	U
3	1,4-Dichlorobenzene	7	U	6.9	U
7.2	1,4-Dioxane	17	U	16	U
8.2	2-Hexanone	19	U	19	U
6.3	3-Chloropropene	14	U	14	U
2.4	4-Ethyltoluene	5.7	U	5.6	U
12	Acetone	**35**	**J**	**56**	**J**
1.6	Benzene	3.7	U	3.6	U
2.6	Benzyl chloride	6	U	5.9	U
3.4	Bromodichloromethane	7.8	U	7.7	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	45	U	44	U
6.2	Carbon disulfide	14	U	14	U
3.1	Carbon tetrachloride	7.3	U	7.2	U
2.3	Chlorobenzene	5.4	U	5.3	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.7	U	5.6	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.6	U	4.5	U
2.3	cis-1,3-Dichloropropene	5.3	U	5.2	U
4.2	Dibromochloromethane	9.9	U	9.8	U
2.2	Ethylbenzene	5	U	5	U
2.8	Freon 11	**310**		**280**	
3.8	Freon 113	**610**		**240**	
2.5	Freon 12	5.8	U	5.7	U
21	Hexachlorobutadiene	50	U	49	U
1.8	Hexane (N-Hexane)	4.1	U	4	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-84-6_091718		OC_SVE_VMP-84-60_091718	
	Sample Type	N		N	
	Lab Sample ID	1809378-15A		1809378-16A	
RL	Dilution Factor	2.33		2.29	
4.9	Isopropyl Alcohol	11	U	11	U
2.2	m,p-Xylene	5	U	5	U
5.9	Methyl ethyl ketone	**23**	**J**	**83**	**J**
2	Methyl isobutyl ketone	4.8	U	4.7	U
7.2	Methyl Tert-Butyl Ether	17	U	16	U
17	Methylene chloride	40	U	40	U
2.2	o-Xylene	5	U	5	U
2.1	Styrene	5	U	4.9	U
3.4	Tetrachloroethene (PCE)	**1400**	**J**	**410**	**J**
41	TNMOC ref. to Heptane	**2500**		**1300**	
1.9	Toluene	4.4	U	4.3	U
2	trans-1,2-Dichloroethene	4.6	U	4.5	U
2.3	trans-1,3-Dichloropropene	5.3	U	5.2	U
2.7	Trichloroethene (TCE)	**500**		**42**	
7	Vinyl acetate	16	U	16	U
1.3	Vinyl chloride	3	U	2.9	U

DATA VALIDATION

FOR

SOIL VAPOR EXTRACTION SYSTEM
OMEGA CHEMICAL SITE
WHITTIER, CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Air
Laboratory Job Nos.

1809379R1

Analyses Performed
By:

Eurofins Air Toxics
Folsom, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

November 1, 2018

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EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Eurofins Air Toxics for 26 SVE air samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). The three samples receiving full validation represent 10% of the total number of SVE air samples received and analyzed by Air Toxics. The data were reported under Laboratory Job No. 1809379R1. Full validation was performed on the sample identifications that have been **bolded**. The following samples were reported.

1809379R1

OC_SVE_VMP-18_091718	OC_SVE_VMP-20_091718
OC_SVE_VMP-21_091718	OC_SVE_VMP-24_091718
OC_SVE_VMP-26_091718	OC_SVE_VMP-27_091718
OC_SVE_VMP-11_091818	OC_SVE_VMP-12_091818
OC_SVE_VMP-15_091818	OC_SVE_VMP-16_091818
OC_SVE_VMP-17_091818	OC_SVE_VMP-22_091818
OC_SVE_VMP-31-24_091818	OC_SVE_VMP-31-24_091818K
OC_SVE_VMP-32-24_091818	OC_SVE_VMP-32-24_091818K
OC_SVE_VMP-32-60_091818	OC_SVE_VMP-43-24_091818
OC_SVE_VMP-5_091818	OC_SVE_VMP-92-68.5_091818
OC_SVE_VMP-94-24_091818	OC_SVE_VMP-94-24_091818K
OC_SVE_VMP-94-60_091818	OC_SVE_VMP-95-61_091818
OC_SVE_VMP-93-60_091918	OC_SVE_VMP-93-60_091918K

Based on the validation effort, the following results were qualified as estimated (J, UJ):

- acetone and tetrachloroethene in all samples except OC_SVE_VMP-93-60_091918 and OC_SVE_VMP-93-60_091918K, and
- methyl ethyl ketone in all samples except OC_SVE_VMP-93-60_091918, OC_SVE_VMP-93-60_091918K, OC_SVE_VMP-32-24_091818, and OC_SVE_VMP-32-24_091818K.

All other results were determined to be valid as reported. A brief explanation of the reason for the actions taken above may be found in the Overall Assessment (Section XIV). Details of the validation findings and conclusions based on review of the results for each quality control requirement are provided in the remaining sections of this report.

Documentation issues are discussed in Section XIII.

This report should be considered part of the data package for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA TO-15. This methodology does not stipulate a reporting format; however, the laboratory provided a "CLP-type" data package for review of the samples receiving full data validation.

The data validation and review were performed, to the extent possible, in conformance with the “Omega Chemical Superfund Site Sampling and Analysis Plan for Remedial Action/Remedial Design October 4, 2010” and ddms’ Standard Operating Procedure: Validation of Volatile Organics in Air Samples by Method TO-15 and TO-17 (ECS-SOP-001). Professional judgment was applied as necessary and appropriate.

The data validation process is intended to evaluate data on a technical basis rather than a contract compliance basis for chemical analyses conducted under the referenced methods. An initial assumption is that the data package is presented in accordance with the CLP requirements (or "CLP-like," as in this case). It is also assumed that the data package represents the best efforts of the laboratory and has already been subjected to adequate and sufficient quality review prior to submission for validation.

During the validation process, laboratory data are verified against all available supporting documentation. Based on the findings of the evaluation, qualifier codes may be added by the data validator. Validated results are, therefore, either qualified or unqualified. Unqualified results mean that the reported values may be used without reservation. Final validated results are annotated with the following codes as defined by the National Functional Guidelines:

U The analyte was analyzed for but was not detected above the level of 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.

JN The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value is the estimated concentration 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 QC criteria. The analyte may or may not be present in the sample.

These codes are recorded on the Data Summary Forms contained in Attachment A to indicate qualifications placed on the results based on the data review.

All data users should note two facts. First, the "R" qualifier means that the laboratory-reported value is unusable. In other words, due to significant quality control problems, the analysis is invalid and provides no information as to whether the analyte is present or not. Rejected values should not appear on data tables because they cannot be relied upon, even as a last resort. Second, no concentration is guaranteed to be accurate even if all associated quality control is acceptable. Strict quality control conformance serves only to increase confidence in reported results; any analytical result will always contain some error.

The data user is also cautioned that the validation effort is based on the raw data printouts as provided by the laboratory. Software manipulation cannot be routinely detected during validation; unless otherwise stated in the report, these kinds of issues are outside the scope of this review.

I. Holding Times, Preservation and Sample Integrity

Copies of the applicable chain of custody (COC) records were included in the data packages documenting sample collection dates of September 17 through 19, 2018. The samples were received at Eurofins Air Toxics on September 20, 2018. All samples were analyzed within the method specified hold time.

II. Documentation

No documentation issues were observed during the review effort.

The remainder of this report is divided into two sections, one reporting the review effort for each of the parameters and the other the Overall Assessment, summarizing the reason for the qualifications made to sample results as a result of the validation effort. The table below documents the Quality Control (QC) parameters reviewed. Only those quality excursions resulting in qualified data are discussed below. Quality control excursions having no impact to sample results are not discussed.

III. VOCs

Review Element	Acceptable?
GC/MS Instrument Tunes	Y
Calibration (Initial Calibration [IC], IC Verification [ICV], Continuing Calibration [CC])	Y
Laboratory and Field Blanks	Y
Surrogates	Y
Laboratory Control Samples (LCS)/ LCS Duplicates (LCSD)	Y
Field Duplicates	N
Matrix Spike (MS)/Matrix Spike Duplicate (MSD)	n/a
Internal Standard Responses	Y
Compound Identification	Y
Compound Quantitation	Y
Overall Evaluation	N

n/a-not applicable

<u>Duplicate Samples</u>

Four sets of field duplicates were submitted:

- OC_SVE_VMP-31-24_091818/OC_SVE_VMP-31-24_091818K
- OC_SVE_VMP-32-24_091818/OC_SVE_VMP-32-24_091818K

- OC_SVE_VMP-94-24_091818/OC_SVE_VMP-94-24_091818K
- OC_SVE_VMP-93-60_091918/OC_SVE_VMP-93-60_091918K

Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL), except as summarized below.

Compound	**OC_SVE_VMP-31-24_091818**	**OC_SVE_VMP-31-24_091818K**	**RPD**
Acetone	36	100	94
Methyl ethyl ketone	68	120	55
Tetrachloroethene	6.1	8.2	29

Compound	**OC_SVE_VMP-32-24_091818**	**OC_SVE_VMP-32-24_091818K**	**RPD**
Acetone	31	64	69
Tetrachloroethene	5.6	8.1	36

Field Sample ID	**OC_SVE_VMP-94-24_091818**	**OC_SVE_VMP-94-24_091818K**	**RPD**
Acetone	34	25	30
Methyl ethyl ketone	110	82	29
Tetrachloroethene	13	9.3	33

Results were qualified as estimated (J, UJ) due to poor precision between paired results as summarized below:

- acetone and tetrachloroethene in all samples except OC_SVE_VMP-93-60_091918 and OC_SVE_VMP-93-60_091918K, and
- methyl ethyl ketone in all samples except OC_SVE_VMP-93-60_091918, OC_SVE_VMP-93-60_091918K, OC_SVE_VMP-32-24_091818, and OC_SVE_VMP-32-24_091818K.

IV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- Results were qualified as estimated (J, UJ) due to poor precision between paired results as summarized below:
    - acetone and tetrachloroethene in all samples except OC_SVE_VMP-93-60_091918 and OC_SVE_VMP-93-60_091918K, and

- methyl ethyl ketone in all samples except OC_SVE_VMP-93-60_091918, OC_SVE_VMP-93-60_091918K, OC_SVE_VMP-32-24_091818, and OC_SVE_VMP-32-24_091818K.

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section II.

This validation report should be considered part of the data package for all future distributions of the volatiles data.

ATTACHMENT A

DATA SUMMARY FORMS
Volatiles in Air
Laboratory Job Nos.
1809379R1

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-11_091818		OC_SVE_VMP-12_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-23A		1809379R1-22A	
RL	Dilution Factor	2.46		2.42	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.9	U	4.8	U
2	1,2,4-Trichlorobenzene	4.9	U	4.8	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.9	U	4.8	U
2	2-Hexanone	**11**		**9.1**	
2	3-Chloropropene	4.9	U	4.8	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**160**	**J**	**150**	**J**
0.5	Benzene	1.2	U	**6.3**	
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.9	U	4.8	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.9	U	4.8	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	**2.5**	
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.9	U	4.8	U
0.5	Hexane (N-Hexane)	**1.6**		**48**	
2	Isopropyl Alcohol (Isopropanol)	**5.7**		4.8	U
0.5	m,p-Xylene	1.2	U	**9.5**	
2	Methyl ethyl ketone	**200**	**J**	**600**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-11_091818		OC_SVE_VMP-12_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-23A		1809379R1-22A	
RL	Dilution Factor	2.46		2.42	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.9	U	4.8	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	**3.1**	
0.5	Styrene	1.2	U	**1.9**	
0.5	Tetrachloroethene (PCE)	**6.5**	**J**	**11**	**J**
10	TNMOC ref. to Heptane (MW=100)	**390**		**780**	
0.5	Toluene	1.2	U	**11**	
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	1.2	U
2	Vinyl acetate	4.9	U	4.8	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-15_091818		OC_SVE_VMP-16_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-21A		1809379R1-19A	
RL	Dilution Factor	2.31		2.35	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.6	U	4.7	U
2	1,2,4-Trichlorobenzene	4.6	U	4.7	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.6	U	4.7	U
2	2-Hexanone	**14**		4.7	U
2	3-Chloropropene	4.6	U	4.7	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**130**	**J**	**150**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.6	U	4.7	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.6	U	4.7	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.6	U	4.7	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.6	U	**16**	
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**200**	**J**	**100**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-15_091818		OC_SVE_VMP-16_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-21A		1809379R1-19A	
RL	Dilution Factor	2.31		2.35	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.6	U	4.7	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**3.5**	**J**	**35**	**J**
10	TNMOC ref. to Heptane (MW=100)	**190**		**170**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	1.2	U
2	Vinyl acetate	4.6	U	4.7	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
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ppvb

	Field Sample ID	OC_SVE_VMP-17_091818		OC_SVE_VMP-18_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-20A		1809379R1-03A	
RL	Dilution Factor	2.3		2.44	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.6	U	4.9	U
2	1,2,4-Trichlorobenzene	4.6	U	4.9	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.6	U	4.9	U
2	2-Hexanone	4.6	U	4.9	U
2	3-Chloropropene	4.6	U	4.9	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**94**	**J**	**55**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.6	U	4.9	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.6	U	4.9	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	**1.3**	
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.6	U	4.9	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.6	U	4.9	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**120**	**J**	**62**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-17_091818		OC_SVE_VMP-18_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-20A		1809379R1-03A	
RL	Dilution Factor	2.3		2.44	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.6	U	4.9	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**8.2**	**J**	**37**	**J**
10	TNMOC ref. to Heptane (MW=100)	**130**		**130**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	**7.2**	
2	Vinyl acetate	4.6	U	4.9	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-20_091718		OC_SVE_VMP-21_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-05A		1809379R1-02A	
RL	Dilution Factor	4.2		2.42	
0.5	1,1,1-Trichloroethane (TCA)	2.1	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	2.1	U	1.2	U
0.5	1,1,2-Trichloroethane	2.1	U	1.2	U
0.5	1,1-Dichloroethane	2.1	U	1.2	U
0.5	1,1-Dichloroethene	2.1	U	1.2	U
2	1,1-Difluoroethane	8.4	U	4.8	U
2	1,2,4-Trichlorobenzene	8.4	U	4.8	U
0.5	1,2,4-Trimethylbenzene	2.1	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	2.1	U	1.2	U
0.5	1,2-Dichlorobenzene	2.1	U	1.2	U
0.5	1,2-Dichloroethane	2.1	U	1.2	U
0.5	1,2-Dichloropropane	2.1	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	2.1	U	1.2	U
0.5	1,3,5-Trimethylbenzene	2.1	U	1.2	U
0.5	1,3-Dichlorobenzene	2.1	U	1.2	U
0.5	1,4-Dichlorobenzene	2.1	U	1.2	U
2	1,4-Dioxane	8.4	U	4.8	U
2	2-Hexanone	8.4	U	4.8	U
2	3-Chloropropene	8.4	U	4.8	U
0.5	4-Ethyltoluene	2.1	U	1.2	U
5	Acetone	**40**	**J**	**96**	**J**
0.5	Benzene	2.1	U	**2.1**	
0.5	Benzyl chloride	2.1	U	1.2	U
0.5	Bromodichloromethane	2.1	U	1.2	U
0.5	Bromoform	2.1	U	1.2	U
5	Bromomethane	21	U	12	U
2	Carbon disulfide	8.4	U	**9.4**	
0.5	Carbon tetrachloride	2.1	U	1.2	U
0.5	Chlorobenzene	2.1	U	1.2	U
2	Chloroethane	8.4	U	4.8	U
0.5	Chloroform	2.1	U	1.2	U
5	Chloromethane	21	U	12	U
0.5	cis-1,2-Dichloroethene	2.1	U	1.2	U
0.5	cis-1,3-Dichloropropene	2.1	U	1.2	U
0.5	Dibromochloromethane	2.1	U	1.2	U
0.5	Ethylbenzene	2.1	U	1.2	U
0.5	Freon 11	2.1	U	1.2	U
0.5	Freon 113	2.1	U	1.2	U
0.5	Freon 12	2.1	U	1.2	U
2	Hexachlorobutadiene	8.4	U	4.8	U
0.5	Hexane (N-Hexane)	2.1	U	**5.3**	
2	Isopropyl Alcohol (Isopropanol)	8.4	U	4.8	U
0.5	m,p-Xylene	2.1	U	1.2	U
2	Methyl ethyl ketone	**49**	**J**	**140**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-20_091718		OC_SVE_VMP-21_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-05A		1809379R1-02A	
RL	Dilution Factor	4.2		2.42	
0.5	Methyl isobutyl ketone	2.1	U	1.2	U
2	Methyl Tert-Butyl Ether	8.4	U	4.8	U
5	Methylene chloride	21	U	12	U
0.5	o-Xylene	2.1	U	1.2	U
0.5	Styrene	2.1	U	1.2	U
0.5	Tetrachloroethene (PCE)	**22**	**J**	**49**	**J**
10	TNMOC ref. to Heptane (MW=100)	**120**		**320**	
0.5	Toluene	2.1	U	1.2	U
0.5	trans-1,2-Dichloroethene	2.1	U	1.2	U
0.5	trans-1,3-Dichloropropene	2.1	U	1.2	U
0.5	Trichloroethene (TCE)	2.1	U	**3.5**	
2	Vinyl acetate	8.4	U	4.8	U
0.5	Vinyl chloride	2.1	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-22_091818		OC_SVE_VMP-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-17A		1809379R1-01A	
RL	Dilution Factor	2.38		2.36	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.8	U	4.7	U
2	1,2,4-Trichlorobenzene	4.8	U	4.7	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.8	U	4.7	U
2	2-Hexanone	4.8	U	**4.7**	
2	3-Chloropropene	4.8	U	4.7	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**78**	**J**	**86**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.8	U	4.7	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.8	U	4.7	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.8	U	4.7	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.7	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**150**	**J**	**160**	**J**

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	Field Sample ID	OC_SVE_VMP-22_091818		OC_SVE_VMP-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-17A		1809379R1-01A	
RL	Dilution Factor	2.38		2.36	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.8	U	4.7	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**14**	**J**	**20**	**J**
10	TNMOC ref. to Heptane (MW=100)	**120**		**180**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	1.2	U
2	Vinyl acetate	4.8	U	4.7	U
0.5	Vinyl chloride	1.2	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-26_091718		OC_SVE_VMP-27_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-06A		1809379R1-04A	
RL	Dilution Factor	2.46		2.56	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.3	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.3	U
0.5	1,1,2-Trichloroethane	1.2	U	1.3	U
0.5	1,1-Dichloroethane	1.2	U	1.3	U
0.5	1,1-Dichloroethene	1.2	U	1.3	U
2	1,1-Difluoroethane	4.9	U	5.1	U
2	1,2,4-Trichlorobenzene	4.9	U	5.1	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.3	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.3	U
0.5	1,2-Dichlorobenzene	1.2	U	1.3	U
0.5	1,2-Dichloroethane	1.2	U	1.3	U
0.5	1,2-Dichloropropane	1.2	U	1.3	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.3	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.3	U
0.5	1,3-Dichlorobenzene	1.2	U	1.3	U
0.5	1,4-Dichlorobenzene	1.2	U	1.3	U
2	1,4-Dioxane	4.9	U	5.1	U
2	2-Hexanone	4.9	U	5.1	U
2	3-Chloropropene	4.9	U	5.1	U
0.5	4-Ethyltoluene	1.2	U	1.3	U
5	Acetone	**82**	**J**	**140**	**J**
0.5	Benzene	1.2	U	1.3	U
0.5	Benzyl chloride	1.2	U	1.3	U
0.5	Bromodichloromethane	1.2	U	1.3	U
0.5	Bromoform	1.2	U	1.3	U
5	Bromomethane	12	U	13	U
2	Carbon disulfide	**7.3**		**12**	
0.5	Carbon tetrachloride	1.2	U	1.3	U
0.5	Chlorobenzene	1.2	U	1.3	U
2	Chloroethane	4.9	U	5.1	U
0.5	Chloroform	1.2	U	1.3	U
5	Chloromethane	12	U	13	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.3	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.3	U
0.5	Dibromochloromethane	1.2	U	1.3	U
0.5	Ethylbenzene	1.2	U	1.3	U
0.5	Freon 11	1.2	U	1.3	U
0.5	Freon 113	1.2	U	1.3	U
0.5	Freon 12	1.2	U	1.3	U
2	Hexachlorobutadiene	4.9	U	5.1	U
0.5	Hexane (N-Hexane)	1.2	U	1.3	U
2	Isopropyl Alcohol (Isopropanol)	4.9	U	**6**	
0.5	m,p-Xylene	1.2	U	1.3	U
2	Methyl ethyl ketone	**120**	**J**	**170**	**J**

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	Field Sample ID	OC_SVE_VMP-26_091718		OC_SVE_VMP-27_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-06A		1809379R1-04A	
RL	Dilution Factor	2.46		2.56	
0.5	Methyl isobutyl ketone	1.2	U	1.3	U
2	Methyl Tert-Butyl Ether	4.9	U	5.1	U
5	Methylene chloride	12	U	13	U
0.5	o-Xylene	1.2	U	1.3	U
0.5	Styrene	1.2	U	1.3	U
0.5	Tetrachloroethene (PCE)	**16**	**J**	**19**	**J**
10	TNMOC ref. to Heptane (MW=100)	**160**		**240**	
0.5	Toluene	1.2	U	1.3	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.3	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.3	U
0.5	Trichloroethene (TCE)	1.2	U	1.3	U
2	Vinyl acetate	4.9	U	5.1	U
0.5	Vinyl chloride	1.2	U	1.3	U

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	Field Sample ID	OC_SVE_VMP-31-24_091818		OC_SVE_VMP-31-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-15A		1809379R1-27A	
RL	Dilution Factor	2.4		2.46	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.8	U	4.9	U
2	1,2,4-Trichlorobenzene	4.8	U	4.9	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.8	U	4.9	U
2	2-Hexanone	4.8	U	4.9	U
2	3-Chloropropene	4.8	U	4.9	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**36**	**J**	**100**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.8	U	4.9	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.8	U	4.9	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.8	U	4.9	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.8	U	**6.7**	
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**68**		**120**	

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	Field Sample ID	OC_SVE_VMP-31-24_091818		OC_SVE_VMP-31-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-15A		1809379R1-27A	
RL	Dilution Factor	2.4		2.46	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.8	U	4.9	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**6.1**	**J**	**8.2**	**J**
10	TNMOC ref. to Heptane (MW=100)	**150**		**120**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	1.2	U
2	Vinyl acetate	4.8	U	4.9	U
0.5	Vinyl chloride	1.2	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-32-24_091818		OC_SVE_VMP-32-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-12A		1809379R1-13A	
RL	Dilution Factor	2.29		2.38	
0.5	1,1,1-Trichloroethane (TCA)	1.1	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.1	U	1.2	U
0.5	1,1,2-Trichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethane	1.1	U	1.2	U
0.5	1,1-Dichloroethene	1.1	U	1.2	U
2	1,1-Difluoroethane	4.6	U	4.8	U
2	1,2,4-Trichlorobenzene	4.6	U	4.8	U
0.5	1,2,4-Trimethylbenzene	1.1	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.1	U	1.2	U
0.5	1,2-Dichlorobenzene	1.1	U	1.2	U
0.5	1,2-Dichloroethane	1.1	U	1.2	U
0.5	1,2-Dichloropropane	1.1	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.1	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.1	U	1.2	U
0.5	1,3-Dichlorobenzene	1.1	U	1.2	U
0.5	1,4-Dichlorobenzene	1.1	U	1.2	U
2	1,4-Dioxane	4.6	U	4.8	U
2	2-Hexanone	4.6	U	4.8	U
2	3-Chloropropene	4.6	U	4.8	U
0.5	4-Ethyltoluene	1.1	U	1.2	U
5	Acetone	**31**	**J**	**64**	**J**
0.5	Benzene	**1.4**		1.2	U
0.5	Benzyl chloride	1.1	U	1.2	U
0.5	Bromodichloromethane	1.1	U	1.2	U
0.5	Bromoform	1.1	U	1.2	U
5	Bromomethane	11	U	12	U
2	Carbon disulfide	4.6	U	4.8	U
0.5	Carbon tetrachloride	1.1	U	1.2	U
0.5	Chlorobenzene	1.1	U	1.2	U
2	Chloroethane	4.6	U	4.8	U
0.5	Chloroform	1.1	U	1.2	U
5	Chloromethane	11	U	12	U
0.5	cis-1,2-Dichloroethene	1.1	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Dibromochloromethane	1.1	U	1.2	U
0.5	Ethylbenzene	1.1	U	1.2	U
0.5	Freon 11	1.1	U	1.2	U
0.5	Freon 113	1.1	U	1.2	U
0.5	Freon 12	1.1	U	1.2	U
2	Hexachlorobutadiene	4.6	U	4.8	U
0.5	Hexane (N-Hexane)	**2.1**		1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.6	U	**6.7**	
0.5	m,p-Xylene	1.1	U	1.2	U
2	Methyl ethyl ketone	**47**	**J**	**57**	**J**

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	Field Sample ID	OC_SVE_VMP-32-24_091818		OC_SVE_VMP-32-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-12A		1809379R1-13A	
RL	Dilution Factor	2.29		2.38	
0.5	Methyl isobutyl ketone	1.1	U	1.2	U
2	Methyl Tert-Butyl Ether	4.6	U	4.8	U
5	Methylene chloride	11	U	12	U
0.5	o-Xylene	1.1	U	1.2	U
0.5	Styrene	1.1	U	1.2	U
0.5	Tetrachloroethene (PCE)	**5.6**	**J**	**8.1**	**J**
10	TNMOC ref. to Heptane (MW=100)	**100**		**250**	
0.5	Toluene	1.1	U	**1.3**	
0.5	trans-1,2-Dichloroethene	1.1	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.1	U	1.2	U
0.5	Trichloroethene (TCE)	1.1	U	1.2	U
2	Vinyl acetate	4.6	U	4.8	U
0.5	Vinyl chloride	1.1	U	1.2	U

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	Field Sample ID	OC_SVE_VMP-32-60_091818		OC_SVE_VMP-43-24_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-14A		1809379R1-10A	
RL	Dilution Factor	2.41		2.34	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.8	U	4.7	U
2	1,2,4-Trichlorobenzene	4.8	U	4.7	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.8	U	4.7	U
2	2-Hexanone	4.8	U	4.7	U
2	3-Chloropropene	4.8	U	4.7	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**37**	**J**	**30**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.8	U	4.7	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.8	U	4.7	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.8	U	4.7	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.7	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**56**	**J**	**43**	**J**

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	Field Sample ID	OC_SVE_VMP-32-60_091818		OC_SVE_VMP-43-24_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-14A		1809379R1-10A	
RL	Dilution Factor	2.41		2.34	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.8	U	4.7	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**5.3**	**J**	**6.6**	**J**
10	TNMOC ref. to Heptane (MW=100)	**160**		**58**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	**1.5**		1.2	U
2	Vinyl acetate	4.8	U	4.7	U
0.5	Vinyl chloride	1.2	U	1.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-5_091818		OC_SVE_VMP-92-68.5_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-18A		1809379R1-24A	
RL	Dilution Factor	2.35		6.74	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	3.4	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	3.4	U
0.5	1,1,2-Trichloroethane	1.2	U	3.4	U
0.5	1,1-Dichloroethane	1.2	U	3.4	U
0.5	1,1-Dichloroethene	1.2	U	**430**	
2	1,1-Difluoroethane	4.7	U	13	U
2	1,2,4-Trichlorobenzene	4.7	U	13	U
0.5	1,2,4-Trimethylbenzene	1.2	U	3.4	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	3.4	U
0.5	1,2-Dichlorobenzene	1.2	U	3.4	U
0.5	1,2-Dichloroethane	1.2	U	3.4	U
0.5	1,2-Dichloropropane	1.2	U	3.4	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	3.4	U
0.5	1,3,5-Trimethylbenzene	1.2	U	3.4	U
0.5	1,3-Dichlorobenzene	1.2	U	3.4	U
0.5	1,4-Dichlorobenzene	1.2	U	3.4	U
2	1,4-Dioxane	4.7	U	13	U
2	2-Hexanone	4.7	U	13	U
2	3-Chloropropene	4.7	U	13	U
0.5	4-Ethyltoluene	1.2	U	3.4	U
5	Acetone	**82**	**J**	**130**	**J**
0.5	Benzene	1.2	U	3.4	U
0.5	Benzyl chloride	1.2	U	3.4	U
0.5	Bromodichloromethane	1.2	U	3.4	U
0.5	Bromoform	1.2	U	3.4	U
5	Bromomethane	12	U	34	U
2	Carbon disulfide	4.7	U	13	U
0.5	Carbon tetrachloride	1.2	U	3.4	U
0.5	Chlorobenzene	1.2	U	3.4	U
2	Chloroethane	4.7	U	13	U
0.5	Chloroform	1.2	U	**4.2**	
5	Chloromethane	12	U	34	U
0.5	cis-1,2-Dichloroethene	1.2	U	3.4	U
0.5	cis-1,3-Dichloropropene	1.2	U	3.4	U
0.5	Dibromochloromethane	1.2	U	3.4	U
0.5	Ethylbenzene	1.2	U	3.4	U
0.5	Freon 11	1.2	U	**62**	
0.5	Freon 113	1.2	U	**160**	
0.5	Freon 12	1.2	U	3.4	U
2	Hexachlorobutadiene	4.7	U	13	U
0.5	Hexane (N-Hexane)	1.2	U	3.4	U
2	Isopropyl Alcohol (Isopropanol)	4.7	U	13	U
0.5	m,p-Xylene	1.2	U	3.4	U
2	Methyl ethyl ketone	**120**	**J**	**230**	**J**

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ppvb

	Field Sample ID	OC_SVE_VMP-5_091818		OC_SVE_VMP-92-68.5_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-18A		1809379R1-24A	
RL	Dilution Factor	2.35		6.74	
0.5	Methyl isobutyl ketone	1.2	U	3.4	U
2	Methyl Tert-Butyl Ether	4.7	U	13	U
5	Methylene chloride	12	U	34	U
0.5	o-Xylene	1.2	U	3.4	U
0.5	Styrene	1.2	U	3.4	U
0.5	Tetrachloroethene (PCE)	**8.9**	**J**	**770**	**J**
10	TNMOC ref. to Heptane (MW=100)	**130**		**2100**	
0.5	Toluene	1.2	U	3.4	U
0.5	trans-1,2-Dichloroethene	1.2	U	3.4	U
0.5	trans-1,3-Dichloropropene	1.2	U	3.4	U
0.5	Trichloroethene (TCE)	1.2	U	**54**	
2	Vinyl acetate	4.7	U	13	U
0.5	Vinyl chloride	1.2	U	3.4	U

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ppvb

	Field Sample ID	OC_SVE_VMP-93-60_091918		OC_SVE_VMP-93-60_091918K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-25A		1809379R1-26A	
RL	Dilution Factor	2.47		2.52	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.3	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.3	U
0.5	1,1,2-Trichloroethane	1.2	U	1.3	U
0.5	1,1-Dichloroethane	1.2	U	1.3	U
0.5	1,1-Dichloroethene	1.2	U	1.3	U
2	1,1-Difluoroethane	4.9	U	5	U
2	1,2,4-Trichlorobenzene	4.9	U	5	U
0.5	1,2,4-Trimethylbenzene	1.2	U	**3.5**	
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.3	U
0.5	1,2-Dichlorobenzene	1.2	U	1.3	U
0.5	1,2-Dichloroethane	1.2	U	1.3	U
0.5	1,2-Dichloropropane	1.2	U	1.3	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.3	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.3	U
0.5	1,3-Dichlorobenzene	1.2	U	1.3	U
0.5	1,4-Dichlorobenzene	1.2	U	1.3	U
2	1,4-Dioxane	4.9	U	5	U
2	2-Hexanone	**7.8**		**6**	
2	3-Chloropropene	4.9	U	5	U
0.5	4-Ethyltoluene	1.2	U	**1.9**	
5	Acetone	**36**		**39**	
0.5	Benzene	1.2	U	1.3	U
0.5	Benzyl chloride	1.2	U	1.3	U
0.5	Bromodichloromethane	1.2	U	1.3	U
0.5	Bromoform	1.2	U	1.3	U
5	Bromomethane	12	U	13	U
2	Carbon disulfide	4.9	U	5	U
0.5	Carbon tetrachloride	1.2	U	1.3	U
0.5	Chlorobenzene	1.2	U	1.3	U
2	Chloroethane	4.9	U	5	U
0.5	Chloroform	1.2	U	1.3	U
5	Chloromethane	12	U	13	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.3	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.3	U
0.5	Dibromochloromethane	1.2	U	1.3	U
0.5	Ethylbenzene	1.2	U	1.3	U
0.5	Freon 11	1.2	U	1.3	U
0.5	Freon 113	1.2	U	1.3	U
0.5	Freon 12	1.2	U	1.3	U
2	Hexachlorobutadiene	4.9	U	5	U
0.5	Hexane (N-Hexane)	1.2	U	1.3	U
2	Isopropyl Alcohol (Isopropanol)	4.9	U	5	U
0.5	m,p-Xylene	1.2	U	1.3	U
2	Methyl ethyl ketone	**120**		**110**	

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	Field Sample ID	OC_SVE_VMP-93-60_091918		OC_SVE_VMP-93-60_091918K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-25A		1809379R1-26A	
RL	Dilution Factor	2.47		2.52	
0.5	Methyl isobutyl ketone	1.2	U	1.3	U
2	Methyl Tert-Butyl Ether	4.9	U	5	U
5	Methylene chloride	12	U	13	U
0.5	o-Xylene	1.2	U	1.3	U
0.5	Styrene	1.2	U	1.3	U
0.5	Tetrachloroethene (PCE)	**29**		**27**	
10	TNMOC ref. to Heptane (MW=100)	**220**		**340**	
0.5	Toluene	1.2	U	1.3	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.3	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.3	U
0.5	Trichloroethene (TCE)	**2**		**2.5**	
2	Vinyl acetate	4.9	U	5	U
0.5	Vinyl chloride	1.2	U	1.3	U

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ppvb

	Field Sample ID	OC_SVE_VMP-94-24_091818		OC_SVE_VMP-94-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-07A		1809379R1-08A	
RL	Dilution Factor	2.38		2.32	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.2	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.2	U
0.5	1,1,2-Trichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethane	1.2	U	1.2	U
0.5	1,1-Dichloroethene	1.2	U	1.2	U
2	1,1-Difluoroethane	4.8	U	4.6	U
2	1,2,4-Trichlorobenzene	4.8	U	4.6	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.2	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.2	U
0.5	1,2-Dichlorobenzene	1.2	U	1.2	U
0.5	1,2-Dichloroethane	1.2	U	1.2	U
0.5	1,2-Dichloropropane	1.2	U	1.2	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.2	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.2	U
0.5	1,3-Dichlorobenzene	1.2	U	1.2	U
0.5	1,4-Dichlorobenzene	1.2	U	1.2	U
2	1,4-Dioxane	4.8	U	4.6	U
2	2-Hexanone	**5.8**		4.6	U
2	3-Chloropropene	4.8	U	4.6	U
0.5	4-Ethyltoluene	1.2	U	1.2	U
5	Acetone	**34**	**J**	**25**	**J**
0.5	Benzene	1.2	U	1.2	U
0.5	Benzyl chloride	1.2	U	1.2	U
0.5	Bromodichloromethane	1.2	U	1.2	U
0.5	Bromoform	1.2	U	1.2	U
5	Bromomethane	12	U	12	U
2	Carbon disulfide	4.8	U	4.6	U
0.5	Carbon tetrachloride	1.2	U	1.2	U
0.5	Chlorobenzene	1.2	U	1.2	U
2	Chloroethane	4.8	U	4.6	U
0.5	Chloroform	1.2	U	1.2	U
5	Chloromethane	12	U	12	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.2	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Dibromochloromethane	1.2	U	1.2	U
0.5	Ethylbenzene	1.2	U	1.2	U
0.5	Freon 11	1.2	U	1.2	U
0.5	Freon 113	1.2	U	1.2	U
0.5	Freon 12	1.2	U	1.2	U
2	Hexachlorobutadiene	4.8	U	4.6	U
0.5	Hexane (N-Hexane)	1.2	U	1.2	U
2	Isopropyl Alcohol (Isopropanol)	4.8	U	4.6	U
0.5	m,p-Xylene	1.2	U	1.2	U
2	Methyl ethyl ketone	**110**	**J**	**82**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-94-24_091818		OC_SVE_VMP-94-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-07A		1809379R1-08A	
RL	Dilution Factor	2.38		2.32	
0.5	Methyl isobutyl ketone	1.2	U	1.2	U
2	Methyl Tert-Butyl Ether	4.8	U	4.6	U
5	Methylene chloride	12	U	12	U
0.5	o-Xylene	1.2	U	1.2	U
0.5	Styrene	1.2	U	1.2	U
0.5	Tetrachloroethene (PCE)	**13**	**J**	**9.3**	**J**
10	TNMOC ref. to Heptane (MW=100)	**140**		**100**	
0.5	Toluene	1.2	U	1.2	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.2	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.2	U
0.5	Trichloroethene (TCE)	1.2	U	1.2	U
2	Vinyl acetate	4.8	U	4.6	U
0.5	Vinyl chloride	1.2	U	1.2	U

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ppvb

	Field Sample ID	OC_SVE_VMP-94-60_091818		OC_SVE_VMP-95-61_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-09A		1809379R1-11A	
RL	Dilution Factor	2.32		2.26	
0.5	1,1,1-Trichloroethane (TCA)	1.2	U	1.1	U
0.5	1,1,2,2-Tetrachloroethane	1.2	U	1.1	U
0.5	1,1,2-Trichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethane	1.2	U	1.1	U
0.5	1,1-Dichloroethene	1.2	U	1.1	U
2	1,1-Difluoroethane	4.6	U	4.5	U
2	1,2,4-Trichlorobenzene	4.6	U	4.5	U
0.5	1,2,4-Trimethylbenzene	1.2	U	1.1	U
0.5	1,2-Dibromoethane (EDB)	1.2	U	1.1	U
0.5	1,2-Dichlorobenzene	1.2	U	1.1	U
0.5	1,2-Dichloroethane	1.2	U	1.1	U
0.5	1,2-Dichloropropane	1.2	U	1.1	U
0.5	1,2-Dichlorotetrafluoroethane	1.2	U	1.1	U
0.5	1,3,5-Trimethylbenzene	1.2	U	1.1	U
0.5	1,3-Dichlorobenzene	1.2	U	1.1	U
0.5	1,4-Dichlorobenzene	1.2	U	1.1	U
2	1,4-Dioxane	4.6	U	4.5	U
2	2-Hexanone	4.6	U	4.5	U
2	3-Chloropropene	4.6	U	4.5	U
0.5	4-Ethyltoluene	1.2	U	1.1	U
5	Acetone	**23**	**J**	**16**	**J**
0.5	Benzene	1.2	U	1.1	U
0.5	Benzyl chloride	1.2	U	1.1	U
0.5	Bromodichloromethane	1.2	U	1.1	U
0.5	Bromoform	1.2	U	1.1	U
5	Bromomethane	12	U	11	U
2	Carbon disulfide	4.6	U	4.5	U
0.5	Carbon tetrachloride	1.2	U	1.1	U
0.5	Chlorobenzene	1.2	U	1.1	U
2	Chloroethane	4.6	U	4.5	U
0.5	Chloroform	1.2	U	1.1	U
5	Chloromethane	12	U	11	U
0.5	cis-1,2-Dichloroethene	1.2	U	1.1	U
0.5	cis-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Dibromochloromethane	1.2	U	1.1	U
0.5	Ethylbenzene	1.2	U	1.1	U
0.5	Freon 11	1.2	U	1.1	U
0.5	Freon 113	1.2	U	1.1	U
0.5	Freon 12	1.2	U	1.1	U
2	Hexachlorobutadiene	4.6	U	4.5	U
0.5	Hexane (N-Hexane)	1.2	U	1.1	U
2	Isopropyl Alcohol (Isopropanol)	4.6	U	4.5	U
0.5	m,p-Xylene	1.2	U	1.1	U
2	Methyl ethyl ketone	**48**	**J**	**26**	**J**

VALIDATION DATA SUMMARY REPORT
Job No. 1809379R1
ppvb

	Field Sample ID	OC_SVE_VMP-94-60_091818		OC_SVE_VMP-95-61_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-09A		1809379R1-11A	
RL	Dilution Factor	2.32		2.26	
0.5	Methyl isobutyl ketone	1.2	U	1.1	U
2	Methyl Tert-Butyl Ether	4.6	U	4.5	U
5	Methylene chloride	12	U	11	U
0.5	o-Xylene	1.2	U	1.1	U
0.5	Styrene	1.2	U	1.1	U
0.5	Tetrachloroethene (PCE)	**8.4**	**J**	**4.5**	**J**
10	TNMOC ref. to Heptane (MW=100)	**56**		**52**	
0.5	Toluene	1.2	U	1.1	U
0.5	trans-1,2-Dichloroethene	1.2	U	1.1	U
0.5	trans-1,3-Dichloropropene	1.2	U	1.1	U
0.5	Trichloroethene (TCE)	1.2	U	1.1	U
2	Vinyl acetate	4.6	U	4.5	U
0.5	Vinyl chloride	1.2	U	1.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-11_091818		OC_SVE_VMP-12_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-23A		1809379R1-22A	
RL	Dilution Factor	2.46		2.42	
2.7	1,1,1-Trichloroethane (TCA)	6.7	U	6.6	U
3.4	1,1,2,2-Tetrachloroethane	8.4	U	8.3	U
2.7	1,1,2-Trichloroethane	6.7	U	6.6	U
2	1,1-Dichloroethane	5	U	4.9	U
2	1,1-Dichloroethene	4.9	U	4.8	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	36	U	36	U
2.4	1,2,4-Trimethylbenzene	6	U	5.9	U
3.8	1,2-Dibromoethane (EDB)	9.4	U	9.3	U
3	1,2-Dichlorobenzene	7.4	U	7.3	U
2	1,2-Dichloroethane	5	U	4.9	U
2.3	1,2-Dichloropropane	5.7	U	5.6	U
3.5	1,2-Dichlorotetrafluoroethane	8.6	U	8.4	U
2.4	1,3,5-Trimethylbenzene	6	U	5.9	U
3	1,3-Dichlorobenzene	7.4	U	7.3	U
3	1,4-Dichlorobenzene	7.4	U	7.3	U
7.2	1,4-Dioxane	18	U	17	U
8.2	2-Hexanone	**46**		**37**	
6.3	3-Chloropropene	15	U	15	U
2.4	4-Ethyltoluene	6	U	5.9	U
12	Acetone	**390**	**J**	**360**	**J**
1.6	Benzene	3.9	U	**20**	
2.6	Benzyl chloride	6.4	U	6.3	U
3.4	Bromodichloromethane	8.2	U	8.1	U
5.2	Bromoform	13	U	12	U
19	Bromomethane	48	U	47	U
6.2	Carbon disulfide	15	U	15	U
3.1	Carbon tetrachloride	7.7	U	7.6	U
2.3	Chlorobenzene	5.7	U	5.6	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	6	U	5.9	U
10	Chloromethane	25	U	25	U
2	cis-1,2-Dichloroethene	4.9	U	4.8	U
2.3	cis-1,3-Dichloropropene	5.6	U	5.5	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.3	U	**11**	
2.8	Freon 11	6.9	U	6.8	U
3.8	Freon 113	9.4	U	9.3	U
2.5	Freon 12	6.1	U	6	U
21	Hexachlorobutadiene	52	U	52	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-11_091818		OC_SVE_VMP-12_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-23A		1809379R1-22A	
RL	Dilution Factor	2.46		2.42	
1.8	Hexane (N-Hexane)	**5.8**		**170**	
4.9	Isopropyl Alcohol (Isopropanol)	**14**		12	U
2.2	m,p-Xylene	5.3	U	**41**	
5.9	Methyl ethyl ketone	**600**	**J**	**1800**	**J**
2	Methyl isobutyl ketone	5	U	5	U
7.2	Methyl Tert-Butyl Ether	18	U	17	U
17	Methylene chloride	43	U	42	U
2.2	o-Xylene	5.3	U	**13**	
2.1	Styrene	5.2	U	**7.9**	
3.4	Tetrachloroethene (PCE)	**44**	**J**	**74**	**J**
41	TNMOC ref. to Heptane (MW=100)	**1600**		**3200**	
1.9	Toluene	4.6	U	**41**	
2	trans-1,2-Dichloroethene	4.9	U	4.8	U
2.3	trans-1,3-Dichloropropene	5.6	U	5.5	U
2.7	Trichloroethene (TCE)	6.6	U	6.5	U
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	3.1	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-15_091818		OC_SVE_VMP-16_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-21A		1809379R1-19A	
RL	Dilution Factor	2.31		2.35	
2.7	1,1,1-Trichloroethane (TCA)	6.3	U	6.4	U
3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.1	U
2.7	1,1,2-Trichloroethane	6.3	U	6.4	U
2	1,1-Dichloroethane	4.7	U	4.8	U
2	1,1-Dichloroethene	4.6	U	4.6	U
5.4	1,1-Difluoroethane	12	U	13	U
15	1,2,4-Trichlorobenzene	34	U	35	U
2.4	1,2,4-Trimethylbenzene	5.7	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	8.9	U	9	U
3	1,2-Dichlorobenzene	6.9	U	7.1	U
2	1,2-Dichloroethane	4.7	U	4.8	U
2.3	1,2-Dichloropropane	5.3	U	5.4	U
3.5	1,2-Dichlorotetrafluoroethane	8.1	U	8.2	U
2.4	1,3,5-Trimethylbenzene	5.7	U	5.8	U
3	1,3-Dichlorobenzene	6.9	U	7.1	U
3	1,4-Dichlorobenzene	6.9	U	7.1	U
7.2	1,4-Dioxane	17	U	17	U
8.2	2-Hexanone	**55**		19	U
6.3	3-Chloropropene	14	U	15	U
2.4	4-Ethyltoluene	5.7	U	5.8	U
12	Acetone	**310**	**J**	**370**	**J**
1.6	Benzene	3.7	U	3.8	U
2.6	Benzyl chloride	6	U	6.1	U
3.4	Bromodichloromethane	7.7	U	7.9	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	45	U	46	U
6.2	Carbon disulfide	14	U	15	U
3.1	Carbon tetrachloride	7.3	U	7.4	U
2.3	Chlorobenzene	5.3	U	5.4	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.6	U	5.7	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.6	U	4.6	U
2.3	cis-1,3-Dichloropropene	5.2	U	5.3	U
4.2	Dibromochloromethane	9.8	U	10	U
2.2	Ethylbenzene	5	U	5.1	U
2.8	Freon 11	6.5	U	6.6	U
3.8	Freon 113	8.8	U	9	U
2.5	Freon 12	5.7	U	5.8	U
21	Hexachlorobutadiene	49	U	50	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-15_091818		OC_SVE_VMP-16_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-21A		1809379R1-19A	
RL	Dilution Factor	2.31		2.35	
1.8	Hexane (N-Hexane)	4.1	U	4.1	U
4.9	Isopropyl Alcohol (Isopropanol)	11	U	**39**	
2.2	m,p-Xylene	5	U	5.1	U
5.9	Methyl ethyl ketone	**590**	**J**	**310**	**J**
2	Methyl isobutyl ketone	4.7	U	4.8	U
7.2	Methyl Tert-Butyl Ether	17	U	17	U
17	Methylene chloride	40	U	41	U
2.2	o-Xylene	5	U	5.1	U
2.1	Styrene	4.9	U	5	U
3.4	Tetrachloroethene (PCE)	**24**	**J**	**240**	**J**
41	TNMOC ref. to Heptane (MW=100)	**780**		**700**	
1.9	Toluene	4.4	U	4.4	U
2	trans-1,2-Dichloroethene	4.6	U	4.6	U
2.3	trans-1,3-Dichloropropene	5.2	U	5.3	U
2.7	Trichloroethene (TCE)	6.2	U	6.3	U
7	Vinyl acetate	16	U	16	U
1.3	Vinyl chloride	3	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-17_091818		OC_SVE_VMP-18_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-20A		1809379R1-03A	
RL	Dilution Factor	2.3		2.44	
2.7	1,1,1-Trichloroethane (TCA)	6.3	U	6.6	U
3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.4	U
2.7	1,1,2-Trichloroethane	6.3	U	6.6	U
2	1,1-Dichloroethane	4.6	U	4.9	U
2	1,1-Dichloroethene	4.6	U	4.8	U
5.4	1,1-Difluoroethane	12	U	13	U
15	1,2,4-Trichlorobenzene	34	U	36	U
2.4	1,2,4-Trimethylbenzene	5.6	U	6	U
3.8	1,2-Dibromoethane (EDB)	8.8	U	9.4	U
3	1,2-Dichlorobenzene	6.9	U	7.3	U
2	1,2-Dichloroethane	4.6	U	4.9	U
2.3	1,2-Dichloropropane	5.3	U	5.6	U
3.5	1,2-Dichlorotetrafluoroethane	8	U	8.5	U
2.4	1,3,5-Trimethylbenzene	5.6	U	6	U
3	1,3-Dichlorobenzene	6.9	U	7.3	U
3	1,4-Dichlorobenzene	6.9	U	7.3	U
7.2	1,4-Dioxane	16	U	18	U
8.2	2-Hexanone	19	U	20	U
6.3	3-Chloropropene	14	U	15	U
2.4	4-Ethyltoluene	5.6	U	6	U
12	Acetone	**220**	**J**	**130**	**J**
1.6	Benzene	3.7	U	3.9	U
2.6	Benzyl chloride	6	U	6.3	U
3.4	Bromodichloromethane	7.7	U	8.2	U
5.2	Bromoform	12	U	13	U
19	Bromomethane	45	U	47	U
6.2	Carbon disulfide	14	U	15	U
3.1	Carbon tetrachloride	7.2	U	7.7	U
2.3	Chlorobenzene	5.3	U	5.6	U
5.3	Chloroethane	12	U	13	U
2.4	Chloroform	5.6	U	6	U
10	Chloromethane	24	U	25	U
2	cis-1,2-Dichloroethene	4.6	U	4.8	U
2.3	cis-1,3-Dichloropropene	5.2	U	5.5	U
4.2	Dibromochloromethane	9.8	U	10	U
2.2	Ethylbenzene	5	U	5.3	U
2.8	Freon 11	6.5	U	**7.4**	
3.8	Freon 113	8.8	U	9.4	U
2.5	Freon 12	5.7	U	6	U
21	Hexachlorobutadiene	49	U	52	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-17_091818		OC_SVE_VMP-18_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-20A		1809379R1-03A	
RL	Dilution Factor	2.3		2.44	
1.8	Hexane (N-Hexane)	4	U	4.3	U
4.9	Isopropyl Alcohol (Isopropanol)	11	U	12	U
2.2	m,p-Xylene	5	U	5.3	U
5.9	Methyl ethyl ketone	**340**	**J**	**180**	**J**
2	Methyl isobutyl ketone	4.7	U	5	U
7.2	Methyl Tert-Butyl Ether	16	U	18	U
17	Methylene chloride	40	U	42	U
2.2	o-Xylene	5	U	5.3	U
2.1	Styrene	4.9	U	5.2	U
3.4	Tetrachloroethene (PCE)	**55**	**J**	**250**	**J**
41	TNMOC ref. to Heptane (MW=100)	**530**		**530**	
1.9	Toluene	4.3	U	4.6	U
2	trans-1,2-Dichloroethene	4.6	U	4.8	U
2.3	trans-1,3-Dichloropropene	5.2	U	5.5	U
2.7	Trichloroethene (TCE)	6.2	U	**39**	
7	Vinyl acetate	16	U	17	U
1.3	Vinyl chloride	2.9	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-20_091718		OC_SVE_VMP-21_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-05A		1809379R1-02A	
RL	Dilution Factor	4.2		2.42	
2.7	1,1,1-Trichloroethane (TCA)	11	U	6.6	U
3.4	1,1,2,2-Tetrachloroethane	14	U	8.3	U
2.7	1,1,2-Trichloroethane	11	U	6.6	U
2	1,1-Dichloroethane	8.5	U	4.9	U
2	1,1-Dichloroethene	8.3	U	4.8	U
5.4	1,1-Difluoroethane	23	U	13	U
15	1,2,4-Trichlorobenzene	62	U	36	U
2.4	1,2,4-Trimethylbenzene	10	U	5.9	U
3.8	1,2-Dibromoethane (EDB)	16	U	9.3	U
3	1,2-Dichlorobenzene	13	U	7.3	U
2	1,2-Dichloroethane	8.5	U	4.9	U
2.3	1,2-Dichloropropane	9.7	U	5.6	U
3.5	1,2-Dichlorotetrafluoroethane	15	U	8.4	U
2.4	1,3,5-Trimethylbenzene	10	U	5.9	U
3	1,3-Dichlorobenzene	13	U	7.3	U
3	1,4-Dichlorobenzene	13	U	7.3	U
7.2	1,4-Dioxane	30	U	17	U
8.2	2-Hexanone	34	U	20	U
6.3	3-Chloropropene	26	U	15	U
2.4	4-Ethyltoluene	10	U	5.9	U
12	Acetone	**96**	**J**	**230**	**J**
1.6	Benzene	6.7	U	**6.8**	
2.6	Benzyl chloride	11	U	6.3	U
3.4	Bromodichloromethane	14	U	8.1	U
5.2	Bromoform	22	U	12	U
19	Bromomethane	82	U	47	U
6.2	Carbon disulfide	26	U	**29**	
3.1	Carbon tetrachloride	13	U	7.6	U
2.3	Chlorobenzene	9.7	U	5.6	U
5.3	Chloroethane	22	U	13	U
2.4	Chloroform	10	U	5.9	U
10	Chloromethane	43	U	25	U
2	cis-1,2-Dichloroethene	8.3	U	4.8	U
2.3	cis-1,3-Dichloropropene	9.5	U	5.5	U
4.2	Dibromochloromethane	18	U	10	U
2.2	Ethylbenzene	9.1	U	5.2	U
2.8	Freon 11	12	U	6.8	U
3.8	Freon 113	16	U	9.3	U
2.5	Freon 12	10	U	6	U
21	Hexachlorobutadiene	90	U	52	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-20_091718		OC_SVE_VMP-21_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-05A		1809379R1-02A	
RL	Dilution Factor	4.2		2.42	
1.8	Hexane (N-Hexane)	7.4	U	**19**	
4.9	Isopropyl Alcohol (Isopropanol)	21	U	12	U
2.2	m,p-Xylene	9.1	U	5.2	U
5.9	Methyl ethyl ketone	**140**	**J**	**430**	**J**
2	Methyl isobutyl ketone	8.6	U	5	U
7.2	Methyl Tert-Butyl Ether	30	U	17	U
17	Methylene chloride	73	U	42	U
2.2	o-Xylene	9.1	U	5.2	U
2.1	Styrene	8.9	U	5.2	U
3.4	Tetrachloroethene (PCE)	**150**	**J**	**330**	**J**
41	TNMOC ref. to Heptane (MW=100)	**490**		**1300**	
1.9	Toluene	7.9	U	4.6	U
2	trans-1,2-Dichloroethene	8.3	U	4.8	U
2.3	trans-1,3-Dichloropropene	9.5	U	5.5	U
2.7	Trichloroethene (TCE)	11	U	**19**	
7	Vinyl acetate	30	U	17	U
1.3	Vinyl chloride	5.4	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-22_091818		OC_SVE_VMP-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-17A		1809379R1-01A	
RL	Dilution Factor	2.38		2.36	
2.7	1,1,1-Trichloroethane (TCA)	6.5	U	6.4	U
3.4	1,1,2,2-Tetrachloroethane	8.2	U	8.1	U
2.7	1,1,2-Trichloroethane	6.5	U	6.4	U
2	1,1-Dichloroethane	4.8	U	4.8	U
2	1,1-Dichloroethene	4.7	U	4.7	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	35	U	35	U
2.4	1,2,4-Trimethylbenzene	5.8	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	9.1	U	9.1	U
3	1,2-Dichlorobenzene	7.2	U	7.1	U
2	1,2-Dichloroethane	4.8	U	4.8	U
2.3	1,2-Dichloropropane	5.5	U	5.4	U
3.5	1,2-Dichlorotetrafluoroethane	8.3	U	8.2	U
2.4	1,3,5-Trimethylbenzene	5.8	U	5.8	U
3	1,3-Dichlorobenzene	7.2	U	7.1	U
3	1,4-Dichlorobenzene	7.2	U	7.1	U
7.2	1,4-Dioxane	17	U	17	U
8.2	2-Hexanone	19	U	**19**	
6.3	3-Chloropropene	15	U	15	U
2.4	4-Ethyltoluene	5.8	U	5.8	U
12	Acetone	**180**	**J**	**200**	**J**
1.6	Benzene	3.8	U	3.8	U
2.6	Benzyl chloride	6.2	U	6.1	U
3.4	Bromodichloromethane	8	U	7.9	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	46	U	46	U
6.2	Carbon disulfide	15	U	15	U
3.1	Carbon tetrachloride	7.5	U	7.4	U
2.3	Chlorobenzene	5.5	U	5.4	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.8	U	5.8	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.7	U	4.7	U
2.3	cis-1,3-Dichloropropene	5.4	U	5.4	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.2	U	5.1	U
2.8	Freon 11	6.7	U	6.6	U
3.8	Freon 113	9.1	U	9	U
2.5	Freon 12	5.9	U	5.8	U
21	Hexachlorobutadiene	51	U	50	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-22_091818		OC_SVE_VMP-24_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-17A		1809379R1-01A	
RL	Dilution Factor	2.38		2.36	
1.8	Hexane (N-Hexane)	4.2	U	4.2	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
2.2	m,p-Xylene	5.2	U	5.1	U
5.9	Methyl ethyl ketone	**430**	**J**	**460**	**J**
2	Methyl isobutyl ketone	4.9	U	4.8	U
7.2	Methyl Tert-Butyl Ether	17	U	17	U
17	Methylene chloride	41	U	41	U
2.2	o-Xylene	5.2	U	5.1	U
2.1	Styrene	5.1	U	5	U
3.4	Tetrachloroethene (PCE)	**96**	**J**	**140**	**J**
41	TNMOC ref. to Heptane (MW=100)	**490**		**740**	
1.9	Toluene	4.5	U	4.4	U
2	trans-1,2-Dichloroethene	4.7	U	4.7	U
2.3	trans-1,3-Dichloropropene	5.4	U	5.4	U
2.7	Trichloroethene (TCE)	6.4	U	6.3	U
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	3	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-26_091718		OC_SVE_VMP-27_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-06A		1809379R1-04A	
RL	Dilution Factor	2.46		2.56	
2.7	1,1,1-Trichloroethane (TCA)	6.7	U	7	U
3.4	1,1,2,2-Tetrachloroethane	8.4	U	8.8	U
2.7	1,1,2-Trichloroethane	6.7	U	7	U
2	1,1-Dichloroethane	5	U	5.2	U
2	1,1-Dichloroethene	4.9	U	5.1	U
5.4	1,1-Difluoroethane	13	U	14	U
15	1,2,4-Trichlorobenzene	36	U	38	U
2.4	1,2,4-Trimethylbenzene	6	U	6.3	U
3.8	1,2-Dibromoethane (EDB)	9.4	U	9.8	U
3	1,2-Dichlorobenzene	7.4	U	7.7	U
2	1,2-Dichloroethane	5	U	5.2	U
2.3	1,2-Dichloropropane	5.7	U	5.9	U
3.5	1,2-Dichlorotetrafluoroethane	8.6	U	8.9	U
2.4	1,3,5-Trimethylbenzene	6	U	6.3	U
3	1,3-Dichlorobenzene	7.4	U	7.7	U
3	1,4-Dichlorobenzene	7.4	U	7.7	U
7.2	1,4-Dioxane	18	U	18	U
8.2	2-Hexanone	20	U	21	U
6.3	3-Chloropropene	15	U	16	U
2.4	4-Ethyltoluene	6	U	6.3	U
12	Acetone	**190**	**J**	**330**	**J**
1.6	Benzene	3.9	U	4.1	U
2.6	Benzyl chloride	6.4	U	6.6	U
3.4	Bromodichloromethane	8.2	U	8.6	U
5.2	Bromoform	13	U	13	U
19	Bromomethane	48	U	50	U
6.2	Carbon disulfide	**23**		**37**	
3.1	Carbon tetrachloride	7.7	U	8	U
2.3	Chlorobenzene	5.7	U	5.9	U
5.3	Chloroethane	13	U	14	U
2.4	Chloroform	6	U	6.2	U
10	Chloromethane	25	U	26	U
2	cis-1,2-Dichloroethene	4.9	U	5.1	U
2.3	cis-1,3-Dichloropropene	5.6	U	5.8	U
4.2	Dibromochloromethane	10	U	11	U
2.2	Ethylbenzene	5.3	U	5.6	U
2.8	Freon 11	6.9	U	7.2	U
3.8	Freon 113	9.4	U	9.8	U
2.5	Freon 12	6.1	U	6.3	U
21	Hexachlorobutadiene	52	U	55	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-26_091718		OC_SVE_VMP-27_091718	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-06A		1809379R1-04A	
RL	Dilution Factor	2.46		2.56	
1.8	Hexane (N-Hexane)	4.3	U	4.5	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	**15**	
2.2	m,p-Xylene	5.3	U	5.6	U
5.9	Methyl ethyl ketone	**340**	**J**	**490**	**J**
2	Methyl isobutyl ketone	5	U	5.2	U
7.2	Methyl Tert-Butyl Ether	18	U	18	U
17	Methylene chloride	43	U	44	U
2.2	o-Xylene	5.3	U	5.6	U
2.1	Styrene	5.2	U	5.4	U
3.4	Tetrachloroethene (PCE)	**110**	**J**	**130**	**J**
41	TNMOC ref. to Heptane (MW=100)	**650**		**980**	
1.9	Toluene	4.6	U	4.8	U
2	trans-1,2-Dichloroethene	4.9	U	5.1	U
2.3	trans-1,3-Dichloropropene	5.6	U	5.8	U
2.7	Trichloroethene (TCE)	6.6	U	6.9	U
7	Vinyl acetate	17	U	18	U
1.3	Vinyl chloride	3.1	U	3.3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-31-24_091818		OC_SVE_VMP-31-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-15A		1809379R1-27A	
RL	Dilution Factor	2.4		2.46	
2.7	1,1,1-Trichloroethane (TCA)	6.5	U	6.7	U
3.4	1,1,2,2-Tetrachloroethane	8.2	U	8.4	U
2.7	1,1,2-Trichloroethane	6.5	U	6.7	U
2	1,1-Dichloroethane	4.8	U	5	U
2	1,1-Dichloroethene	4.8	U	4.9	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	36	U	36	U
2.4	1,2,4-Trimethylbenzene	5.9	U	6	U
3.8	1,2-Dibromoethane (EDB)	9.2	U	9.4	U
3	1,2-Dichlorobenzene	7.2	U	7.4	U
2	1,2-Dichloroethane	4.8	U	5	U
2.3	1,2-Dichloropropane	5.5	U	5.7	U
3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.6	U
2.4	1,3,5-Trimethylbenzene	5.9	U	6	U
3	1,3-Dichlorobenzene	7.2	U	7.4	U
3	1,4-Dichlorobenzene	7.2	U	7.4	U
7.2	1,4-Dioxane	17	U	18	U
8.2	2-Hexanone	20	U	20	U
6.3	3-Chloropropene	15	U	15	U
2.4	4-Ethyltoluene	5.9	U	6	U
12	Acetone	**86**	**J**	**240**	**J**
1.6	Benzene	3.8	U	3.9	U
2.6	Benzyl chloride	6.2	U	6.4	U
3.4	Bromodichloromethane	8	U	8.2	U
5.2	Bromoform	12	U	13	U
19	Bromomethane	47	U	48	U
6.2	Carbon disulfide	15	U	15	U
3.1	Carbon tetrachloride	7.6	U	7.7	U
2.3	Chlorobenzene	5.5	U	5.7	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	5.8	U	6	U
10	Chloromethane	25	U	25	U
2	cis-1,2-Dichloroethene	4.8	U	4.9	U
2.3	cis-1,3-Dichloropropene	5.4	U	5.6	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.2	U	5.3	U
2.8	Freon 11	6.7	U	6.9	U
3.8	Freon 113	9.2	U	9.4	U
2.5	Freon 12	5.9	U	6.1	U
21	Hexachlorobutadiene	51	U	52	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-31-24_091818		OC_SVE_VMP-31-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-15A		1809379R1-27A	
RL	Dilution Factor	2.4		2.46	
1.8	Hexane (N-Hexane)	4.2	U	4.3	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	**16**	
2.2	m,p-Xylene	5.2	U	5.3	U
5.9	Methyl ethyl ketone	**200**		**340**	
2	Methyl isobutyl ketone	4.9	U	5	U
7.2	Methyl Tert-Butyl Ether	17	U	18	U
17	Methylene chloride	42	U	43	U
2.2	o-Xylene	5.2	U	5.3	U
2.1	Styrene	5.1	U	5.2	U
3.4	Tetrachloroethene (PCE)	**42**	**J**	**55**	**J**
41	TNMOC ref. to Heptane (MW=100)	**610**		**490**	
1.9	Toluene	4.5	U	4.6	U
2	trans-1,2-Dichloroethene	4.8	U	4.9	U
2.3	trans-1,3-Dichloropropene	5.4	U	5.6	U
2.7	Trichloroethene (TCE)	6.4	U	6.6	U
7	Vinyl acetate	17	U	17	U
1.3	Vinyl chloride	3.1	U	3.1	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-32-24_091818		OC_SVE_VMP-32-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-12A		1809379R1-13A	
RL	Dilution Factor	2.29		2.38	
2.7	1,1,1-Trichloroethane (TCA)	6.2	U	6.5	U
3.4	1,1,2,2-Tetrachloroethane	7.9	U	8.2	U
2.7	1,1,2-Trichloroethane	6.2	U	6.5	U
2	1,1-Dichloroethane	4.6	U	4.8	U
2	1,1-Dichloroethene	4.5	U	4.7	U
5.4	1,1-Difluoroethane	12	U	13	U
15	1,2,4-Trichlorobenzene	34	U	35	U
2.4	1,2,4-Trimethylbenzene	5.6	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	8.8	U	9.1	U
3	1,2-Dichlorobenzene	6.9	U	7.2	U
2	1,2-Dichloroethane	4.6	U	4.8	U
2.3	1,2-Dichloropropane	5.3	U	5.5	U
3.5	1,2-Dichlorotetrafluoroethane	8	U	8.3	U
2.4	1,3,5-Trimethylbenzene	5.6	U	5.8	U
3	1,3-Dichlorobenzene	6.9	U	7.2	U
3	1,4-Dichlorobenzene	6.9	U	7.2	U
7.2	1,4-Dioxane	16	U	17	U
8.2	2-Hexanone	19	U	19	U
6.3	3-Chloropropene	14	U	15	U
2.4	4-Ethyltoluene	5.6	U	5.8	U
12	Acetone	**73**	**J**	**150**	**J**
1.6	Benzene	**4.4**		3.8	U
2.6	Benzyl chloride	5.9	U	6.2	U
3.4	Bromodichloromethane	7.7	U	8	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	44	U	46	U
6.2	Carbon disulfide	14	U	15	U
3.1	Carbon tetrachloride	7.2	U	7.5	U
2.3	Chlorobenzene	5.3	U	5.5	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.6	U	5.8	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.5	U	4.7	U
2.3	cis-1,3-Dichloropropene	5.2	U	5.4	U
4.2	Dibromochloromethane	9.8	U	10	U
2.2	Ethylbenzene	5	U	5.2	U
2.8	Freon 11	6.4	U	6.7	U
3.8	Freon 113	8.8	U	9.1	U
2.5	Freon 12	5.7	U	5.9	U
21	Hexachlorobutadiene	49	U	51	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-32-24_091818		OC_SVE_VMP-32-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-12A		1809379R1-13A	
RL	Dilution Factor	2.29		2.38	
1.8	Hexane (N-Hexane)	**7.5**		4.2	U
4.9	Isopropyl Alcohol (Isopropanol)	11	U	**16**	
2.2	m,p-Xylene	5	U	5.2	U
5.9	Methyl ethyl ketone	**140**	**J**	**170**	**J**
2	Methyl isobutyl ketone	4.7	U	4.9	U
7.2	Methyl Tert-Butyl Ether	16	U	17	U
17	Methylene chloride	40	U	41	U
2.2	o-Xylene	5	U	5.2	U
2.1	Styrene	4.9	U	5.1	U
3.4	Tetrachloroethene (PCE)	**38**	**J**	**55**	**J**
41	TNMOC ref. to Heptane (MW=100)	**410**		**1000**	
1.9	Toluene	4.3	U	**5**	
2	trans-1,2-Dichloroethene	4.5	U	4.7	U
2.3	trans-1,3-Dichloropropene	5.2	U	5.4	U
2.7	Trichloroethene (TCE)	6.2	U	6.4	U
7	Vinyl acetate	16	U	17	U
1.3	Vinyl chloride	2.9	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-32-60_091818		OC_SVE_VMP-43-24_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-14A		1809379R1-10A	
RL	Dilution Factor	2.41		2.34	
2.7	1,1,1-Trichloroethane (TCA)	6.6	U	6.4	U
3.4	1,1,2,2-Tetrachloroethane	8.3	U	8	U
2.7	1,1,2-Trichloroethane	6.6	U	6.4	U
2	1,1-Dichloroethane	4.9	U	4.7	U
2	1,1-Dichloroethene	4.8	U	4.6	U
5.4	1,1-Difluoroethane	13	U	13	U
15	1,2,4-Trichlorobenzene	36	U	35	U
2.4	1,2,4-Trimethylbenzene	5.9	U	5.8	U
3.8	1,2-Dibromoethane (EDB)	9.2	U	9	U
3	1,2-Dichlorobenzene	7.2	U	7	U
2	1,2-Dichloroethane	4.9	U	4.7	U
2.3	1,2-Dichloropropane	5.6	U	5.4	U
3.5	1,2-Dichlorotetrafluoroethane	8.4	U	8.2	U
2.4	1,3,5-Trimethylbenzene	5.9	U	5.8	U
3	1,3-Dichlorobenzene	7.2	U	7	U
3	1,4-Dichlorobenzene	7.2	U	7	U
7.2	1,4-Dioxane	17	U	17	U
8.2	2-Hexanone	20	U	19	U
6.3	3-Chloropropene	15	U	15	U
2.4	4-Ethyltoluene	5.9	U	5.8	U
12	Acetone	**88**	**J**	**71**	**J**
1.6	Benzene	3.8	U	3.7	U
2.6	Benzyl chloride	6.2	U	6	U
3.4	Bromodichloromethane	8.1	U	7.8	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	47	U	45	U
6.2	Carbon disulfide	15	U	14	U
3.1	Carbon tetrachloride	7.6	U	7.4	U
2.3	Chlorobenzene	5.5	U	5.4	U
5.3	Chloroethane	13	U	12	U
2.4	Chloroform	5.9	U	5.7	U
10	Chloromethane	25	U	24	U
2	cis-1,2-Dichloroethene	4.8	U	4.6	U
2.3	cis-1,3-Dichloropropene	5.5	U	5.3	U
4.2	Dibromochloromethane	10	U	10	U
2.2	Ethylbenzene	5.2	U	5.1	U
2.8	Freon 11	6.8	U	6.6	U
3.8	Freon 113	9.2	U	9	U
2.5	Freon 12	6	U	5.8	U
21	Hexachlorobutadiene	51	U	50	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-32-60_091818		OC_SVE_VMP-43-24_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-14A		1809379R1-10A	
RL	Dilution Factor	2.41		2.34	
1.8	Hexane (N-Hexane)	4.2	U	4.1	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
2.2	m,p-Xylene	5.2	U	5.1	U
5.9	Methyl ethyl ketone	**170**	**J**	**130**	**J**
2	Methyl isobutyl ketone	4.9	U	4.8	U
7.2	Methyl Tert-Butyl Ether	17	U	17	U
17	Methylene chloride	42	U	41	U
2.2	o-Xylene	5.2	U	5.1	U
2.1	Styrene	5.1	U	5	U
3.4	Tetrachloroethene (PCE)	**36**	**J**	**45**	**J**
41	TNMOC ref. to Heptane (MW=100)	**650**		**240**	
1.9	Toluene	4.5	U	4.4	U
2	trans-1,2-Dichloroethene	4.8	U	4.6	U
2.3	trans-1,3-Dichloropropene	5.5	U	5.3	U
2.7	Trichloroethene (TCE)	**8.1**		6.3	U
7	Vinyl acetate	17	U	16	U
1.3	Vinyl chloride	3.1	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-5_091818		OC_SVE_VMP-92-68.5_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-18A		1809379R1-24A	
RL	Dilution Factor	2.35		6.74	
2.7	1,1,1-Trichloroethane (TCA)	6.4	U	18	U
3.4	1,1,2,2-Tetrachloroethane	8.1	U	23	U
2.7	1,1,2-Trichloroethane	6.4	U	18	U
2	1,1-Dichloroethane	4.8	U	14	U
2	1,1-Dichloroethene	4.6	U	**1700**	
5.4	1,1-Difluoroethane	13	U	36	U
15	1,2,4-Trichlorobenzene	35	U	100	U
2.4	1,2,4-Trimethylbenzene	5.8	U	16	U
3.8	1,2-Dibromoethane (EDB)	9	U	26	U
3	1,2-Dichlorobenzene	7.1	U	20	U
2	1,2-Dichloroethane	4.8	U	14	U
2.3	1,2-Dichloropropane	5.4	U	16	U
3.5	1,2-Dichlorotetrafluoroethane	8.2	U	24	U
2.4	1,3,5-Trimethylbenzene	5.8	U	16	U
3	1,3-Dichlorobenzene	7.1	U	20	U
3	1,4-Dichlorobenzene	7.1	U	20	U
7.2	1,4-Dioxane	17	U	48	U
8.2	2-Hexanone	19	U	55	U
6.3	3-Chloropropene	15	U	42	U
2.4	4-Ethyltoluene	5.8	U	16	U
12	Acetone	**200**	**J**	**310**	**J**
1.6	Benzene	3.8	U	11	U
2.6	Benzyl chloride	6.1	U	17	U
3.4	Bromodichloromethane	7.9	U	22	U
5.2	Bromoform	12	U	35	U
19	Bromomethane	46	U	130	U
6.2	Carbon disulfide	15	U	42	U
3.1	Carbon tetrachloride	7.4	U	21	U
2.3	Chlorobenzene	5.4	U	16	U
5.3	Chloroethane	12	U	36	U
2.4	Chloroform	5.7	U	**20**	
10	Chloromethane	24	U	70	U
2	cis-1,2-Dichloroethene	4.6	U	13	U
2.3	cis-1,3-Dichloropropene	5.3	U	15	U
4.2	Dibromochloromethane	10	U	29	U
2.2	Ethylbenzene	5.1	U	15	U
2.8	Freon 11	6.6	U	**350**	
3.8	Freon 113	9	U	**1200**	
2.5	Freon 12	5.8	U	17	U
21	Hexachlorobutadiene	50	U	140	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-5_091818		OC_SVE_VMP-92-68.5_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-18A		1809379R1-24A	
RL	Dilution Factor	2.35		6.74	
1.8	Hexane (N-Hexane)	4.1	U	12	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	33	U
2.2	m,p-Xylene	5.1	U	15	U
5.9	Methyl ethyl ketone	**340**	**J**	**680**	**J**
2	Methyl isobutyl ketone	4.8	U	14	U
7.2	Methyl Tert-Butyl Ether	17	U	48	U
17	Methylene chloride	41	U	120	U
2.2	o-Xylene	5.1	U	15	U
2.1	Styrene	5	U	14	U
3.4	Tetrachloroethene (PCE)	**61**	**J**	**5200**	**J**
41	TNMOC ref. to Heptane (MW=100)	**530**		**8600**	
1.9	Toluene	4.4	U	13	U
2	trans-1,2-Dichloroethene	4.6	U	13	U
2.3	trans-1,3-Dichloropropene	5.3	U	15	U
2.7	Trichloroethene (TCE)	6.3	U	**290**	
7	Vinyl acetate	16	U	47	U
1.3	Vinyl chloride	3	U	8.6	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-93-60_091918		OC_SVE_VMP-93-60_091918K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-25A		1809379R1-26A	
RL	Dilution Factor	2.47		2.52	
2.7	1,1,1-Trichloroethane (TCA)	6.7	U	6.9	U
3.4	1,1,2,2-Tetrachloroethane	8.5	U	8.6	U
2.7	1,1,2-Trichloroethane	6.7	U	6.9	U
2	1,1-Dichloroethane	5	U	5.1	U
2	1,1-Dichloroethene	4.9	U	5	U
5.4	1,1-Difluoroethane	13	U	14	U
15	1,2,4-Trichlorobenzene	37	U	37	U
2.4	1,2,4-Trimethylbenzene	6.1	U	**17**	
3.8	1,2-Dibromoethane (EDB)	9.5	U	9.7	U
3	1,2-Dichlorobenzene	7.4	U	7.6	U
2	1,2-Dichloroethane	5	U	5.1	U
2.3	1,2-Dichloropropane	5.7	U	5.8	U
3.5	1,2-Dichlorotetrafluoroethane	8.6	U	8.8	U
2.4	1,3,5-Trimethylbenzene	6.1	U	6.2	U
3	1,3-Dichlorobenzene	7.4	U	7.6	U
3	1,4-Dichlorobenzene	7.4	U	7.6	U
7.2	1,4-Dioxane	18	U	18	U
8.2	2-Hexanone	**32**		**24**	
6.3	3-Chloropropene	15	U	16	U
2.4	4-Ethyltoluene	6.1	U	**9.4**	
12	Acetone	**86**		**92**	
1.6	Benzene	3.9	U	4	U
2.6	Benzyl chloride	6.4	U	6.5	U
3.4	Bromodichloromethane	8.3	U	8.4	U
5.2	Bromoform	13	U	13	U
19	Bromomethane	48	U	49	U
6.2	Carbon disulfide	15	U	16	U
3.1	Carbon tetrachloride	7.8	U	7.9	U
2.3	Chlorobenzene	5.7	U	5.8	U
5.3	Chloroethane	13	U	13	U
2.4	Chloroform	6	U	6.2	U
10	Chloromethane	26	U	26	U
2	cis-1,2-Dichloroethene	4.9	U	5	U
2.3	cis-1,3-Dichloropropene	5.6	U	5.7	U
4.2	Dibromochloromethane	10	U	11	U
2.2	Ethylbenzene	5.4	U	5.5	U
2.8	Freon 11	6.9	U	7.1	U
3.8	Freon 113	9.5	U	9.6	U
2.5	Freon 12	6.1	U	6.2	U
21	Hexachlorobutadiene	53	U	54	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-93-60_091918		OC_SVE_VMP-93-60_091918K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-25A		1809379R1-26A	
RL	Dilution Factor	2.47		2.52	
1.8	Hexane (N-Hexane)	4.4	U	4.4	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	12	U
2.2	m,p-Xylene	5.4	U	5.5	U
5.9	Methyl ethyl ketone	**360**		**330**	
2	Methyl isobutyl ketone	5	U	5.2	U
7.2	Methyl Tert-Butyl Ether	18	U	18	U
17	Methylene chloride	43	U	44	U
2.2	o-Xylene	5.4	U	5.5	U
2.1	Styrene	5.3	U	5.4	U
3.4	Tetrachloroethene (PCE)	**200**		**180**	
41	TNMOC ref. to Heptane (MW=100)	**900**		**1400**	
1.9	Toluene	4.6	U	4.7	U
2	trans-1,2-Dichloroethene	4.9	U	5	U
2.3	trans-1,3-Dichloropropene	5.6	U	5.7	U
2.7	Trichloroethene (TCE)	**11**		**14**	
7	Vinyl acetate	17	U	18	U
1.3	Vinyl chloride	3.2	U	3.2	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-94-24_091818		OC_SVE_VMP-94-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-07A		1809379R1-08A	
RL	Dilution Factor	2.38		2.32	
2.7	1,1,1-Trichloroethane (TCA)	6.5	U	6.3	U
3.4	1,1,2,2-Tetrachloroethane	8.2	U	8	U
2.7	1,1,2-Trichloroethane	6.5	U	6.3	U
2	1,1-Dichloroethane	4.8	U	4.7	U
2	1,1-Dichloroethene	4.7	U	4.6	U
5.4	1,1-Difluoroethane	13	U	12	U
15	1,2,4-Trichlorobenzene	35	U	34	U
2.4	1,2,4-Trimethylbenzene	5.8	U	5.7	U
3.8	1,2-Dibromoethane (EDB)	9.1	U	8.9	U
3	1,2-Dichlorobenzene	7.2	U	7	U
2	1,2-Dichloroethane	4.8	U	4.7	U
2.3	1,2-Dichloropropane	5.5	U	5.4	U
3.5	1,2-Dichlorotetrafluoroethane	8.3	U	8.1	U
2.4	1,3,5-Trimethylbenzene	5.8	U	5.7	U
3	1,3-Dichlorobenzene	7.2	U	7	U
3	1,4-Dichlorobenzene	7.2	U	7	U
7.2	1,4-Dioxane	17	U	17	U
8.2	2-Hexanone	**24**		19	U
6.3	3-Chloropropene	15	U	14	U
2.4	4-Ethyltoluene	5.8	U	5.7	U
12	Acetone	**80**	**J**	**60**	**J**
1.6	Benzene	3.8	U	3.7	U
2.6	Benzyl chloride	6.2	U	6	U
3.4	Bromodichloromethane	8	U	7.8	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	46	U	45	U
6.2	Carbon disulfide	15	U	14	U
3.1	Carbon tetrachloride	7.5	U	7.3	U
2.3	Chlorobenzene	5.5	U	5.3	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.8	U	5.7	U
10	Chloromethane	24	U	24	U
2	cis-1,2-Dichloroethene	4.7	U	4.6	U
2.3	cis-1,3-Dichloropropene	5.4	U	5.3	U
4.2	Dibromochloromethane	10	U	9.9	U
2.2	Ethylbenzene	5.2	U	5	U
2.8	Freon 11	6.7	U	6.5	U
3.8	Freon 113	9.1	U	8.9	U
2.5	Freon 12	5.9	U	5.7	U
21	Hexachlorobutadiene	51	U	49	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-94-24_091818		OC_SVE_VMP-94-24_091818K	
	Sample Type	N		FD	
	Lab Sample ID	1809379R1-07A		1809379R1-08A	
RL	Dilution Factor	2.38		2.32	
1.8	Hexane (N-Hexane)	4.2	U	4.1	U
4.9	Isopropyl Alcohol (Isopropanol)	12	U	11	U
2.2	m,p-Xylene	5.2	U	5	U
5.9	Methyl ethyl ketone	**320**	**J**	**240**	**J**
2	Methyl isobutyl ketone	4.9	U	4.8	U
7.2	Methyl Tert-Butyl Ether	17	U	17	U
17	Methylene chloride	41	U	40	U
2.2	o-Xylene	5.2	U	5	U
2.1	Styrene	5.1	U	4.9	U
3.4	Tetrachloroethene (PCE)	**87**	**J**	**63**	**J**
41	TNMOC ref. to Heptane (MW=100)	**570**		**410**	
1.9	Toluene	4.5	U	4.4	U
2	trans-1,2-Dichloroethene	4.7	U	4.6	U
2.3	trans-1,3-Dichloropropene	5.4	U	5.3	U
2.7	Trichloroethene (TCE)	6.4	U	6.2	U
7	Vinyl acetate	17	U	16	U
1.3	Vinyl chloride	3	U	3	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-94-60_091818		OC_SVE_VMP-95-61_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-09A		1809379R1-11A	
RL	Dilution Factor	2.32		2.26	
2.7	1,1,1-Trichloroethane (TCA)	6.3	U	6.2	U
3.4	1,1,2,2-Tetrachloroethane	8	U	7.8	U
2.7	1,1,2-Trichloroethane	6.3	U	6.2	U
2	1,1-Dichloroethane	4.7	U	4.6	U
2	1,1-Dichloroethene	4.6	U	4.5	U
5.4	1,1-Difluoroethane	12	U	12	U
15	1,2,4-Trichlorobenzene	34	U	34	U
2.4	1,2,4-Trimethylbenzene	5.7	U	5.6	U
3.8	1,2-Dibromoethane (EDB)	8.9	U	8.7	U
3	1,2-Dichlorobenzene	7	U	6.8	U
2	1,2-Dichloroethane	4.7	U	4.6	U
2.3	1,2-Dichloropropane	5.4	U	5.2	U
3.5	1,2-Dichlorotetrafluoroethane	8.1	U	7.9	U
2.4	1,3,5-Trimethylbenzene	5.7	U	5.6	U
3	1,3-Dichlorobenzene	7	U	6.8	U
3	1,4-Dichlorobenzene	7	U	6.8	U
7.2	1,4-Dioxane	17	U	16	U
8.2	2-Hexanone	19	U	18	U
6.3	3-Chloropropene	14	U	14	U
2.4	4-Ethyltoluene	5.7	U	5.6	U
12	Acetone	**56**	**J**	**39**	**J**
1.6	Benzene	3.7	U	3.6	U
2.6	Benzyl chloride	6	U	5.8	U
3.4	Bromodichloromethane	7.8	U	7.6	U
5.2	Bromoform	12	U	12	U
19	Bromomethane	45	U	44	U
6.2	Carbon disulfide	14	U	14	U
3.1	Carbon tetrachloride	7.3	U	7.1	U
2.3	Chlorobenzene	5.3	U	5.2	U
5.3	Chloroethane	12	U	12	U
2.4	Chloroform	5.7	U	5.5	U
10	Chloromethane	24	U	23	U
2	cis-1,2-Dichloroethene	4.6	U	4.5	U
2.3	cis-1,3-Dichloropropene	5.3	U	5.1	U
4.2	Dibromochloromethane	9.9	U	9.6	U
2.2	Ethylbenzene	5	U	4.9	U
2.8	Freon 11	6.5	U	6.3	U
3.8	Freon 113	8.9	U	8.7	U
2.5	Freon 12	5.7	U	5.6	U
21	Hexachlorobutadiene	49	U	48	U

VALIDATION DATA SUMMARY REPORT
Job No. 1809378
ug/m3

	Field Sample ID	OC_SVE_VMP-94-60_091818		OC_SVE_VMP-95-61_091818	
	Sample Type	N		N	
	Lab Sample ID	1809379R1-09A		1809379R1-11A	
RL	Dilution Factor	2.32		2.26	
1.8	Hexane (N-Hexane)	4.1	U	4	U
4.9	Isopropyl Alcohol (Isopropanol)	11	U	11	U
2.2	m,p-Xylene	5	U	4.9	U
5.9	Methyl ethyl ketone	**140**	**J**	**76**	**J**
2	Methyl isobutyl ketone	4.8	U	4.6	U
7.2	Methyl Tert-Butyl Ether	17	U	16	U
17	Methylene chloride	40	U	39	U
2.2	o-Xylene	5	U	4.9	U
2.1	Styrene	4.9	U	4.8	U
3.4	Tetrachloroethene (PCE)	**57**	**J**	**31**	**J**
41	TNMOC ref. to Heptane (MW=100)	**230**		**210**	
1.9	Toluene	4.4	U	4.2	U
2	trans-1,2-Dichloroethene	4.6	U	4.5	U
2.3	trans-1,3-Dichloropropene	5.3	U	5.1	U
2.7	Trichloroethene (TCE)	6.2	U	6.1	U
7	Vinyl acetate	16	U	16	U
1.3	Vinyl chloride	3	U	2.9	U

Attachment E

Summary of Vapor Monitoring Probe

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Attachment E, Table E-1
Shallow Vapor Monitoring Probe Summary of Quarterly Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
		Cleanup Levels	**470**	**1300**						
VMP-11-30	ORIG	9/18/2018	44 J	6.6 U	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VMP-12-30	ORIG	9/18/2018	74 J	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	20
VMP-15-30	ORIG	9/18/2018	24 J	6.2 U	3 U	4.7 U	4.7 U	5.6 U	40 U	3.7 U
VMP-16-30	ORIG	9/18/2018	240 J	6.3 U	3 U	4.8 U	4.8 U	5.7 U	41 U	3.8 U
VMP-17-30	ORIG	9/18/2018	55 J	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.7 U
VMP-18-30	ORIG	9/17/2018	250 J	39	3.1 U	4.9 U	4.9 U	6 U	42 U	3.9 U
VMP-20-30	ORIG	9/17/2018	150 J	11 U	5.4 U	8.5 U	8.5 U	10 U	73 U	6.7 U
VMP-21-30	ORIG	9/17/2018	330 J	19	3.1 U	4.9 U	4.9 U	5.9 U	42 U	6.8
VMP-22-30	ORIG	9/18/2018	96 J	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-24-30	ORIG	9/17/2018	140 J	6.3 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-26-30	ORIG	9/17/2018	110 J	6.6 U	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VMP-27-30	ORIG	9/17/2018	130 J	6.9 U	3.3 U	5.2 U	5.2 U	6.2 U	44 U	4.1 U
VMP-31-24	ORIG	9/18/2018	42 J	6.4 U	3.1 U	4.8 U	4.8 U	5.8 U	42 U	3.8 U
VMP-31-24	DUP	9/18/2018	55 J	6.6 U	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VMP-32-24	ORIG	9/18/2018	38 J	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	4.4
VMP-32-24	DUP	9/18/2018	55 J	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-43-24	ORIG	9/18/2018	45 J	6.3 U	3 U	4.7 U	4.7 U	5.7 U	41 U	3.7 U
VMP-94-24	ORIG	9/18/2018	87 J	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-94-24	DUP	9/18/2018	63 J	6.2 U	3 U	4.7 U	4.7 U	5.7 U	40 U	3.7 U

Notes:

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

J = results are qualified as estimated

SHALLOW = between 0 and 30 feet below ground surface

The last two digits of each Location indicate the depth of the sample in feet

Cleanup Level exceedances highlighted in yellow

ORIG = original sample

DUP = field duplicate

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment E, Table E-2
Deep Vapor Monitoring Probe Summary of Quarterly Data
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
VMP-5-45	ORIG	9/18/2018	61 J	6.3 U	3 U	4.8 U	4.8 U	5.7 U	41 U	3.8 U
VMP-31-70[1]										
VMP-32-60	ORIG	9/18/2018	36 J	8.1	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.8 U
VMP-92-70	ORIG	9/18/2018	5200 J	290	8.6 U	14 U	14 U	20	120 U	11 U
VMP-93-60	ORIG	9/19/2018	200	11	3.2 U	5 U	5 U	6 U	43 U	3.9 U
VMP-93-60	DUP	9/19/2018	180	14	3.2 U	5.1 U	5.1 U	6.2 U	44 U	4 U
VMP-94-60	ORIG	9/18/2018	57 J	6.2 U	3 U	4.7 U	4.7 U	5.7 U	40 U	3.7 U
VMP-95-60	ORIG	9/18/2018	31 J	6.1 U	2.9 U	4.6 U	4.6 U	5.5 U	39 U	3.6 U

Notes:

1. Unable to perform analysis due to insufficient sample volume.

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

J = results are qualified as estimated

DEEP = greater than 30 feet below ground surface

The last two digits of each Location indicate the depth of the sample in feet

ORIG = original sample

DUP = field duplicate

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment E, Table E-3
Shallow Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VE-1M	36	VE-1S, VE-5S	9/17/2018	-0.52
VE-2S	22	VE-1S, VE-5S	9/17/2018	-0.09
VE-4S	22	VE-1S, VE-5S	9/17/2018	-0.21
VE-5M	36	VE-5S	9/17/2018	-0.63
VE-7S	30	VE-8S	9/18/2018	-0.22
VMP-11	30	VE-10S, VE-12S	9/18/2018	-0.51
VMP-12	30	VE-10S, VE-11S	9/18/2018	-0.98
VMP-13	30	VE-31S	9/18/2018	-0.14
VMP-14	30		9/18/2018	--
VMP-15	30	VE-10S, VE-9S	9/18/2018	-0.59
VMP-16	30	VE-11S	9/18/2018	-0.22
VMP-17	30		9/18/2018	-0.97
VMP-18	30	VE-15S	9/17/2018	0.00
VMP-20	30	VE-5S, VE-8S	9/17/2018	-0.23
VMP-21	30	VE-15S	9/17/2018	-0.09
VMP-22	30		9/18/2018	-0.15
VMP-24	30		9/17/2018	-0.06
VMP-26	30	VE-14S	9/17/2018	-0.02
VMP-27	30	VE-14S	9/17/2018	-0.01
VMP-31	6	VE-21S	9/18/2018	-0.09
	12	VE-21S	9/18/2018	-0.20
	24	VE-21S	9/18/2018	-0.44
VMP-32	6	VE-39S	9/18/2018	-0.07
	12	VE-39S	9/18/2018	-0.16
	24	VE-39S	9/18/2018	-0.26
VMP-43	6	VE-31S	9/18/2018	-0.19
	12	VE-31S	9/18/2018	-0.11
	24	VE-31S	9/18/2018	-0.29
VMP-94	6	VE-31S	9/18/2018	-0.08
	12	VE-31S	9/18/2018	-0.15
	24	VE-31S	9/18/2018	-0.27

Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.

Attachment E, Table E-4
Deep Vapor Monitoring Probe Vacuum Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VMP-1D	70	DPE-8	9/17/2018	-0.50
VMP-3D	70	VE-2D	9/18/2018	-0.39
VMP-4D	70	DPE-3, VE-2D	9/18/2018	-1.97
VMP-5	45	VE-2D	9/18/2018	-0.16
VMP-31	40	VE-6D	9/18/2018	0.00
	55	VE-6D	9/18/2018	-1.28
	60	VE-6D	9/18/2018	-0.62
	70	VE-6D	9/18/2018	0.00
VMP-32	40	VE-10D	9/18/2018	-2.78
	55	VE-10D	9/18/2018	-2.35
	60	VE-10D	9/18/2018	-0.58
	70	VE-10D	9/18/2018	-0.55
VMP-92	50	DPE-5	9/18/2018	0.00
	60	DPE-5	9/18/2018	-0.77
	70	DPE-5	9/18/2018	-0.40
VMP-93	50		9/19/2018	-1.13
	60		9/19/2018	-0.02
	70		9/19/2018	-1.31
VMP-94	40	DPE-4, VE-14D	9/18/2018	-0.50
	50	DPE-4, VE-14D	9/18/2018	-0.71
	60	DPE-4, VE-14D	9/18/2018	-1.22
	70	DPE-4, VE-14D	9/18/2018	-1.75
VMP-95	50		9/18/2018	-0.03
	60		9/18/2018	-3.15
	70		9/18/2018	-1.74

Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

3. Yellow highlighted cells indicate a VMP within the design ROI of a VEW that did not meet the target vacuum of -0.1 in H2O at the time the monitoring was conducted.

1. Includes Shallow Vapor Monitoring Probes between 0 and 30 feet below land surface as monitored per the 2018 OU-1 Soil Gas Monitoring Memorandum.
2. See Attachment E, Table E-3 for list of vacuum measurements.

Vacuum

- achieves target vacuum at all depths
- achieves target vacuum at some depths
- does not achieve target vacuum
- no vacuum data available

- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/21/2018

Attachment E, Figure E-1
Vacuum Influence at
Shallow Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018

1. Includes Deep Vapor Monitoring Probes greater than 30 feet below land surface as monitored per the 2018 OU-1 Soil Gas Monitoring Memorandum.
2. See Attachment E, Table E-4 for list of vacuum measurements.

Vacuum

- achieves target vacuum at all depths
- achieves target vacuum at some depths
- does not achieve target vacuum
- no vacuum data available

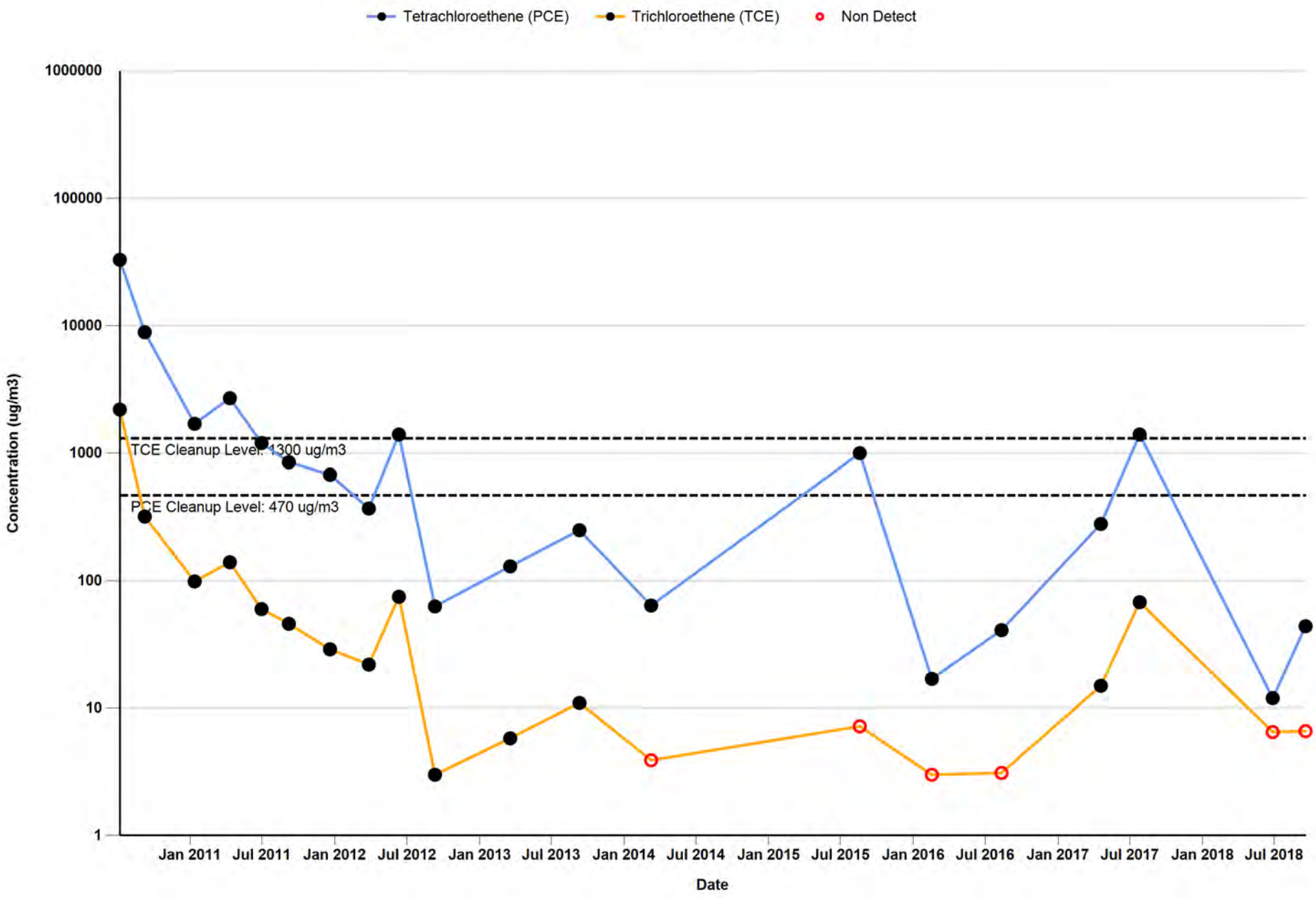
- OU-1 Boundary
- Building Currently Commercially/Industrially Occupied
- Building Currently Vacant
- Former Omega Chemical Property Boundary

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/21/2018

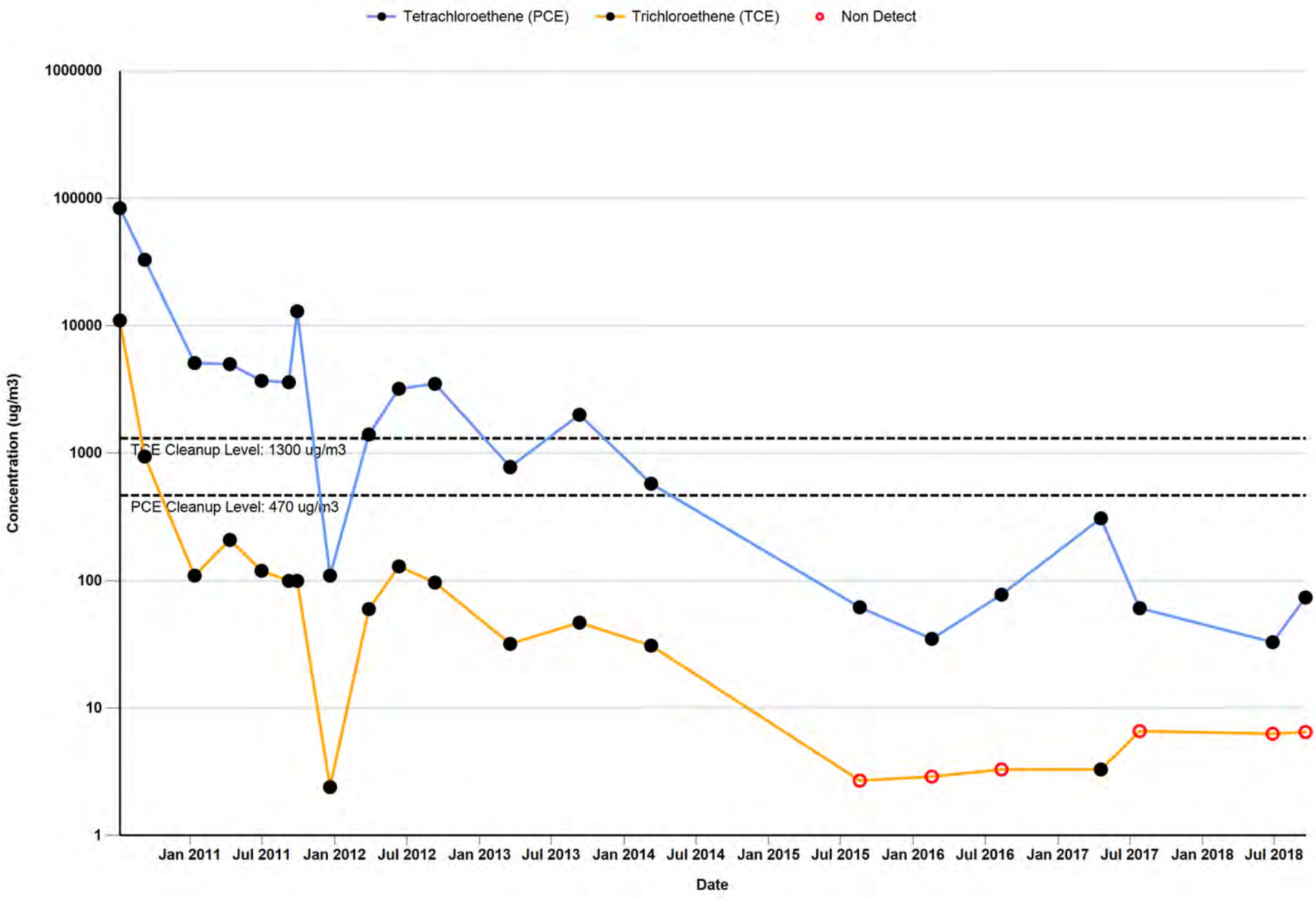
Attachment E, Figure E-2
Vacuum Influence at
Deep Vapor Monitoring Probes
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site
Third Quarter 2018

Attachment E, Figure E-3
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-11 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



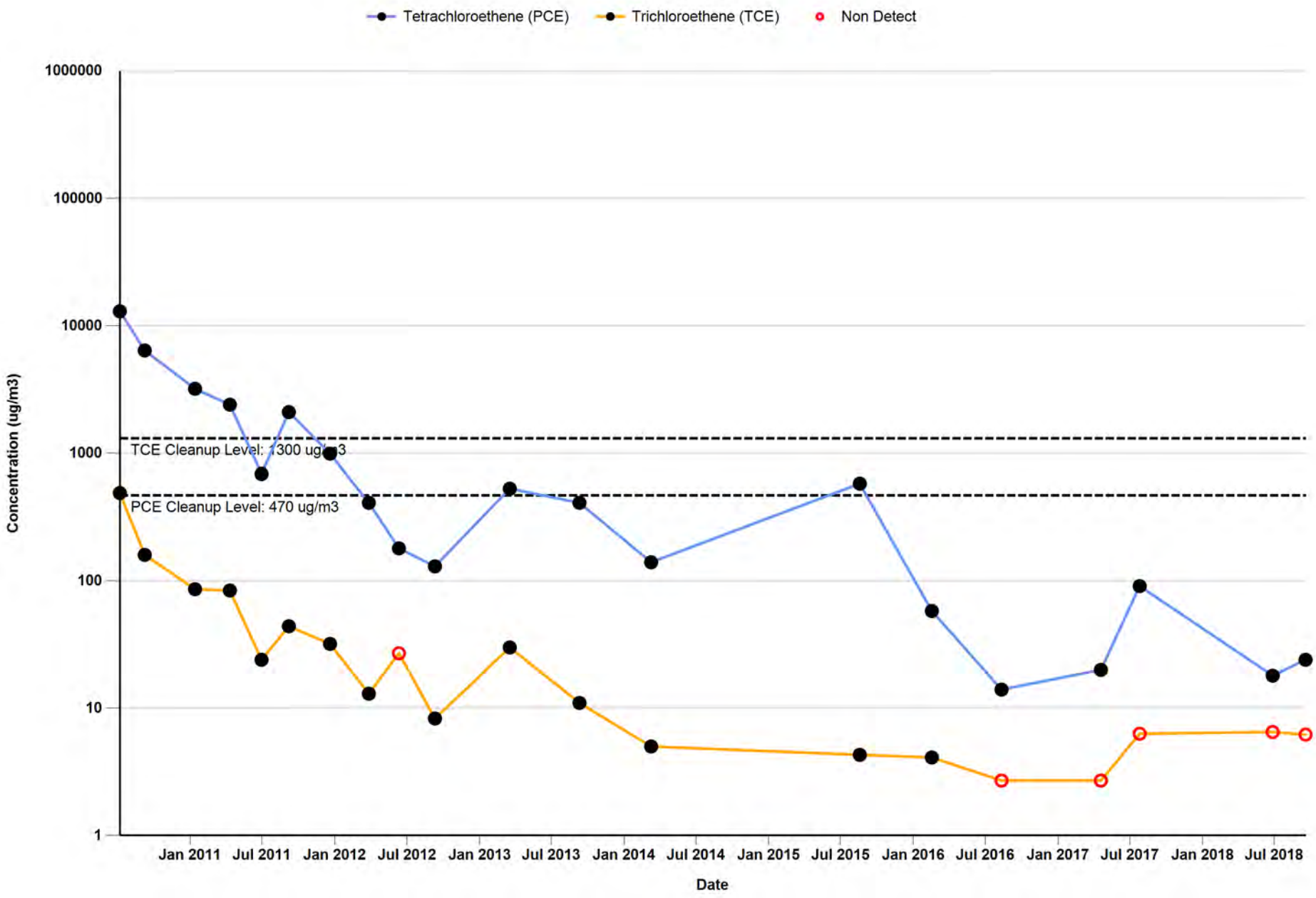
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-4
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-12 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



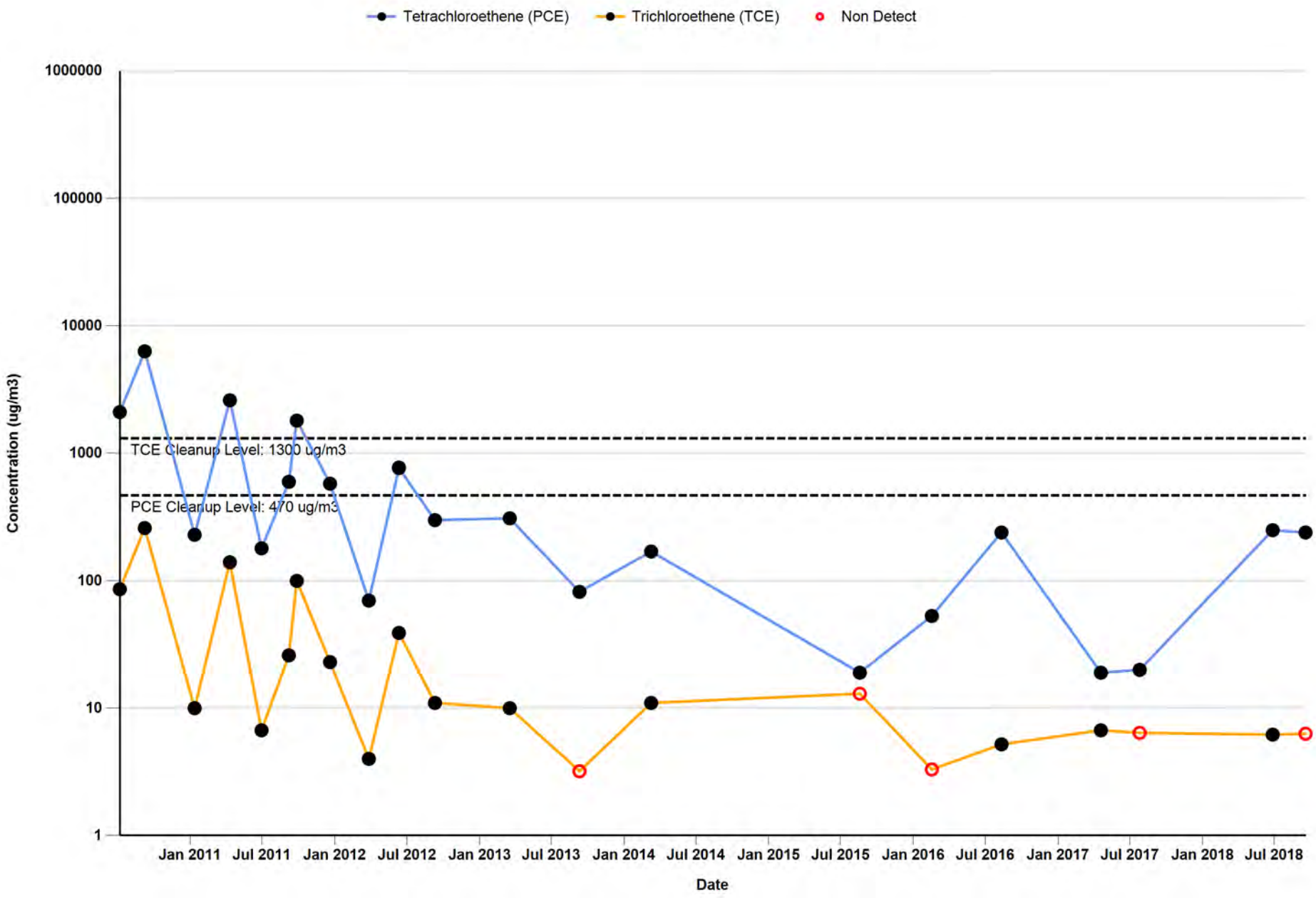
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-5
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-15 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



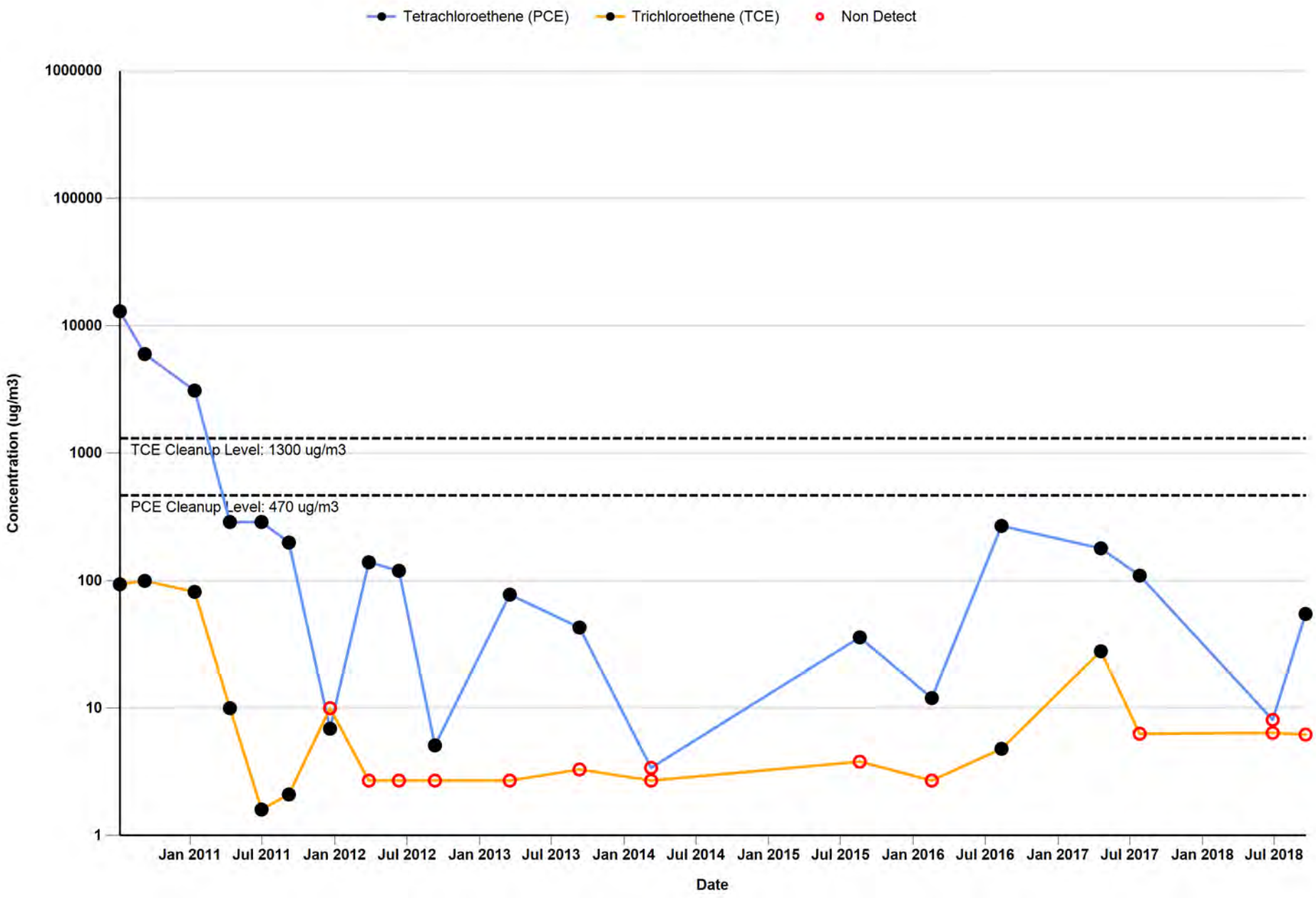
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-6
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-16 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



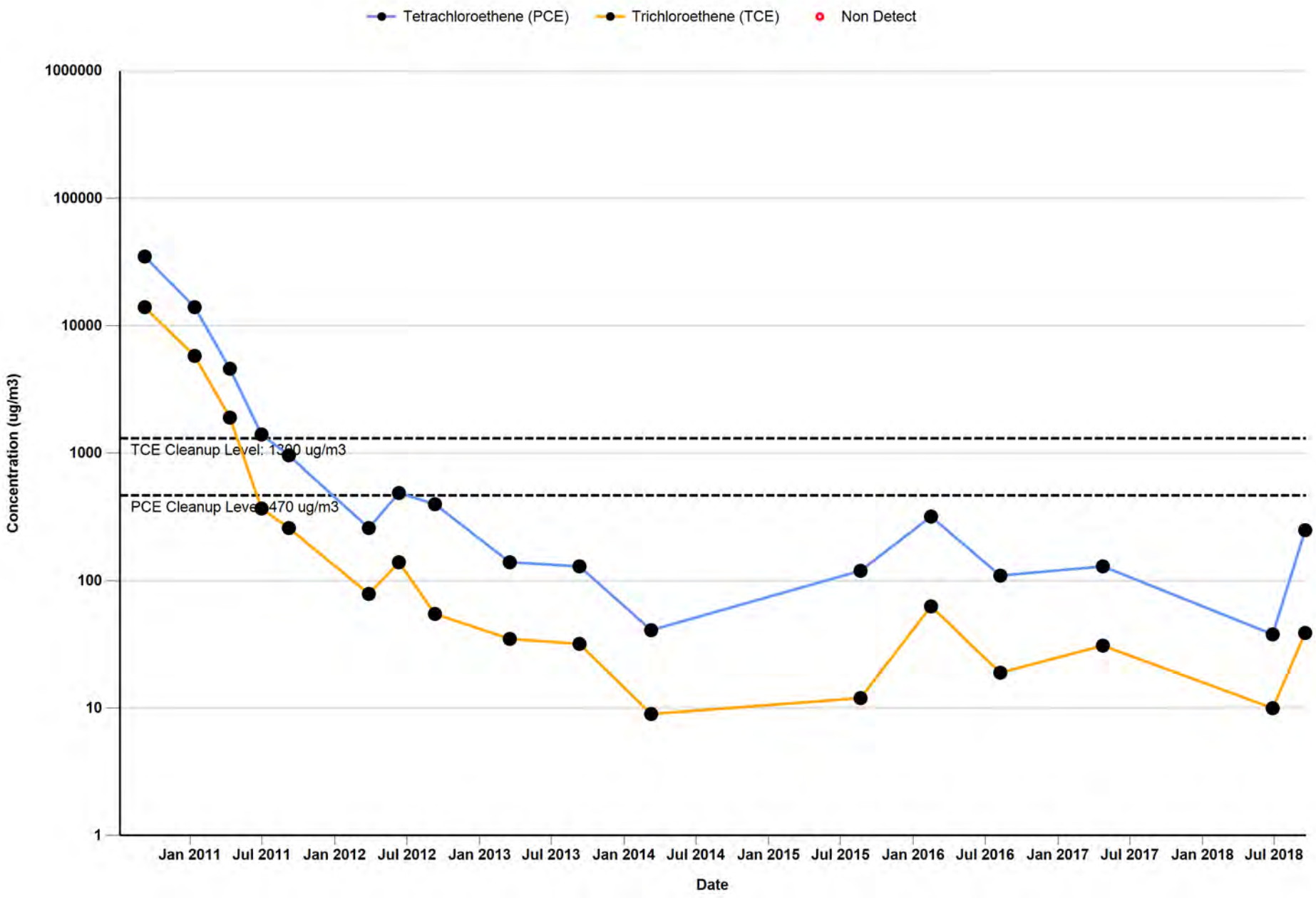
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-7
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-17 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



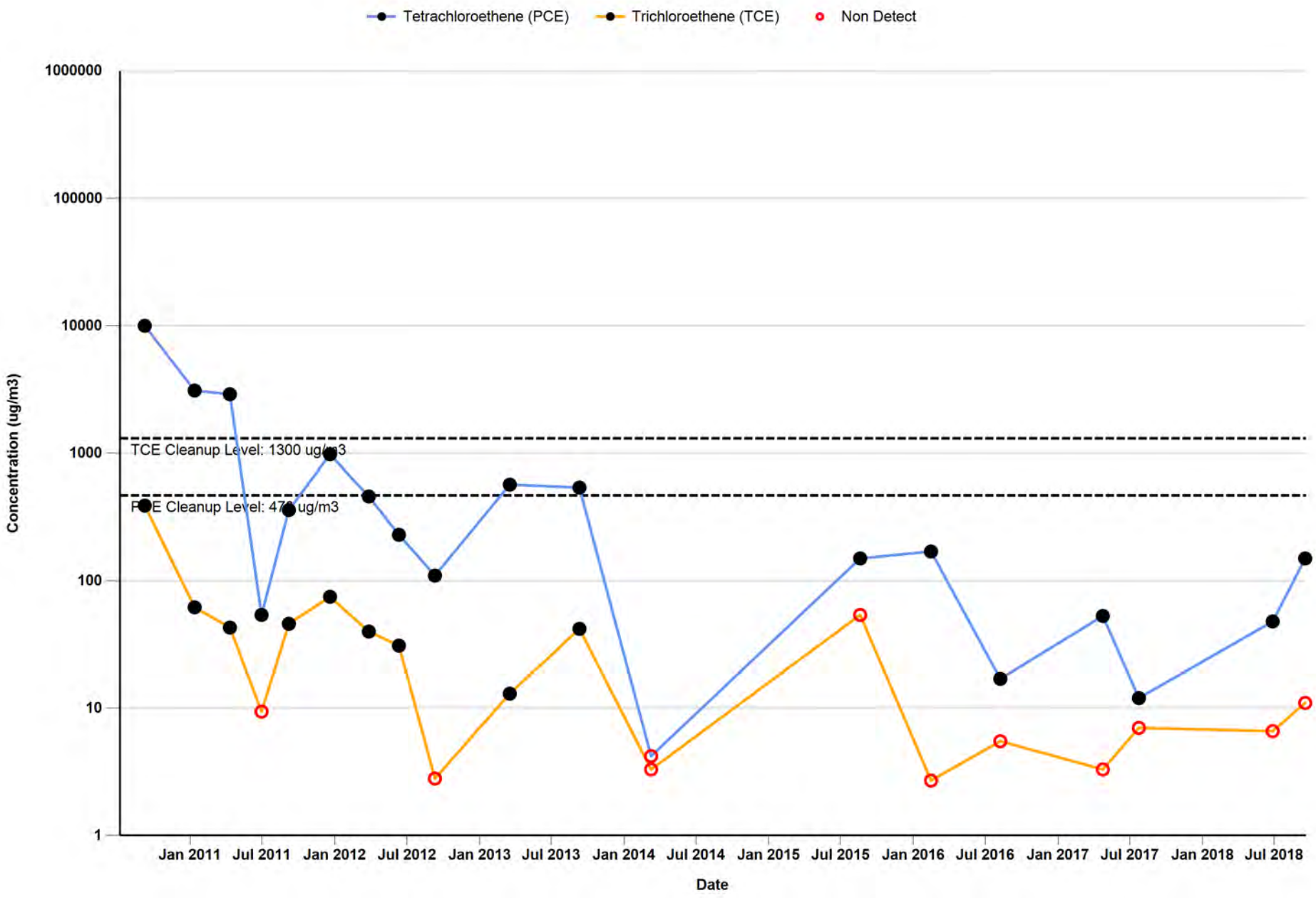
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-8
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-18 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



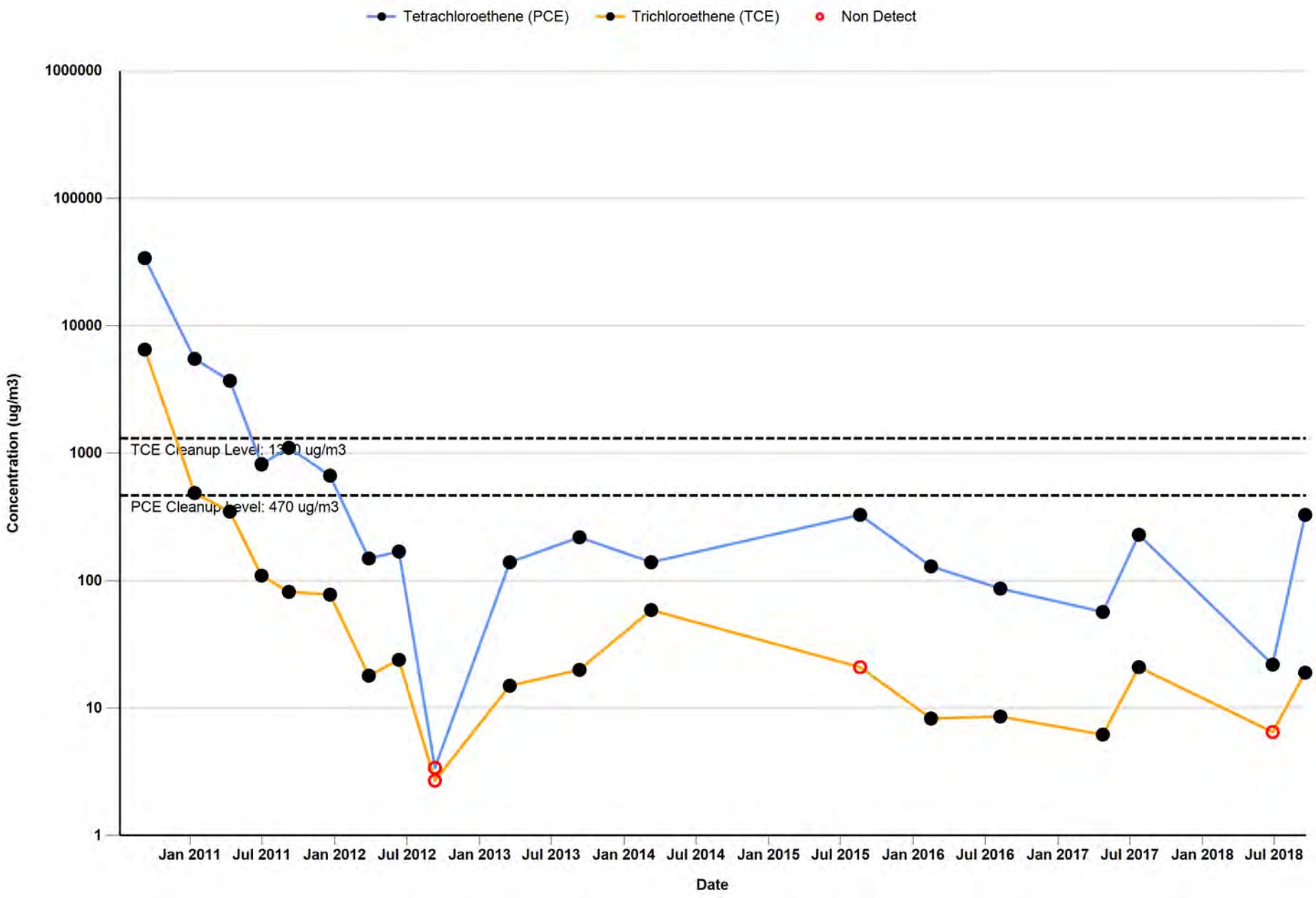
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-9
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-20 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



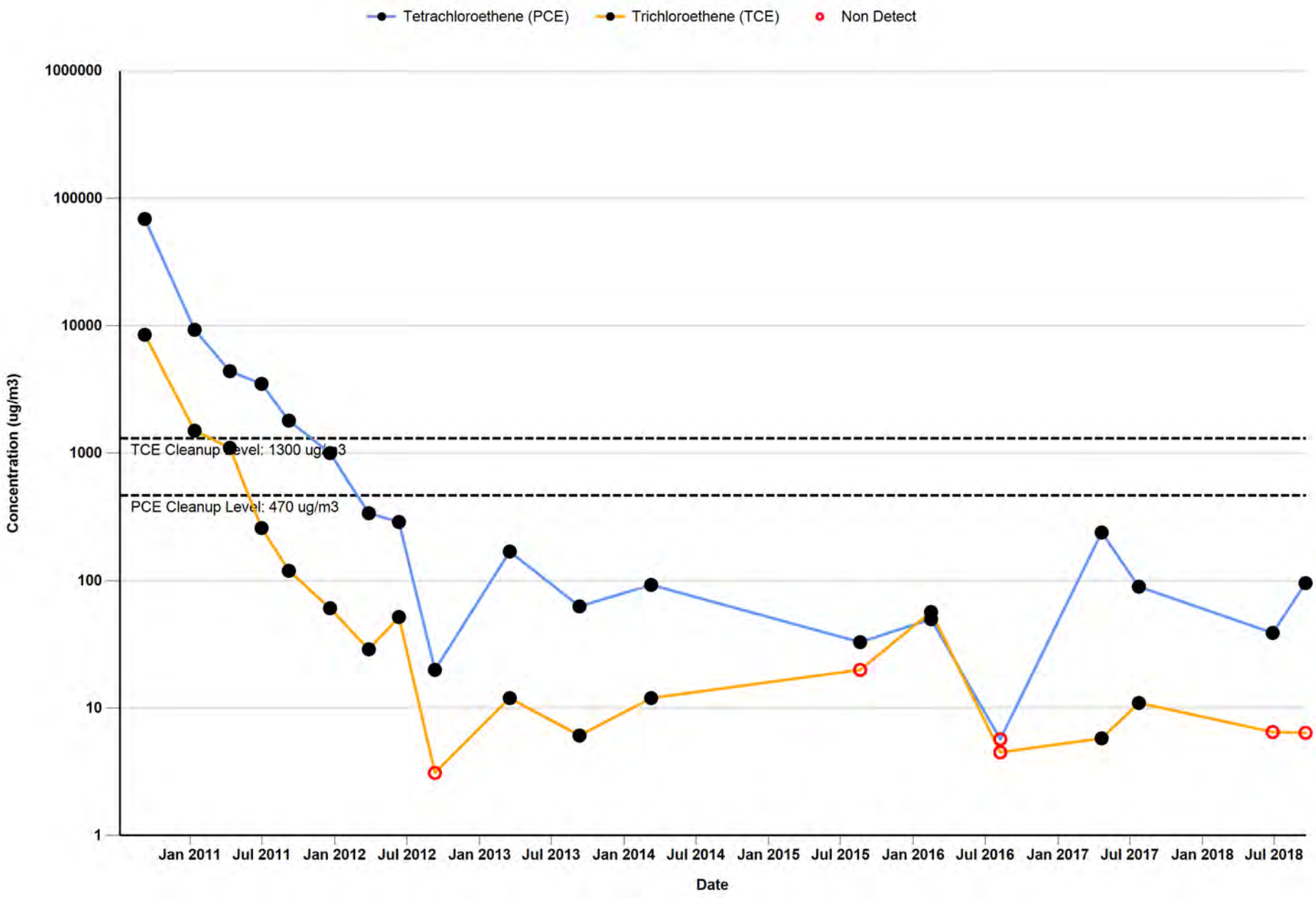
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-10
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-21 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



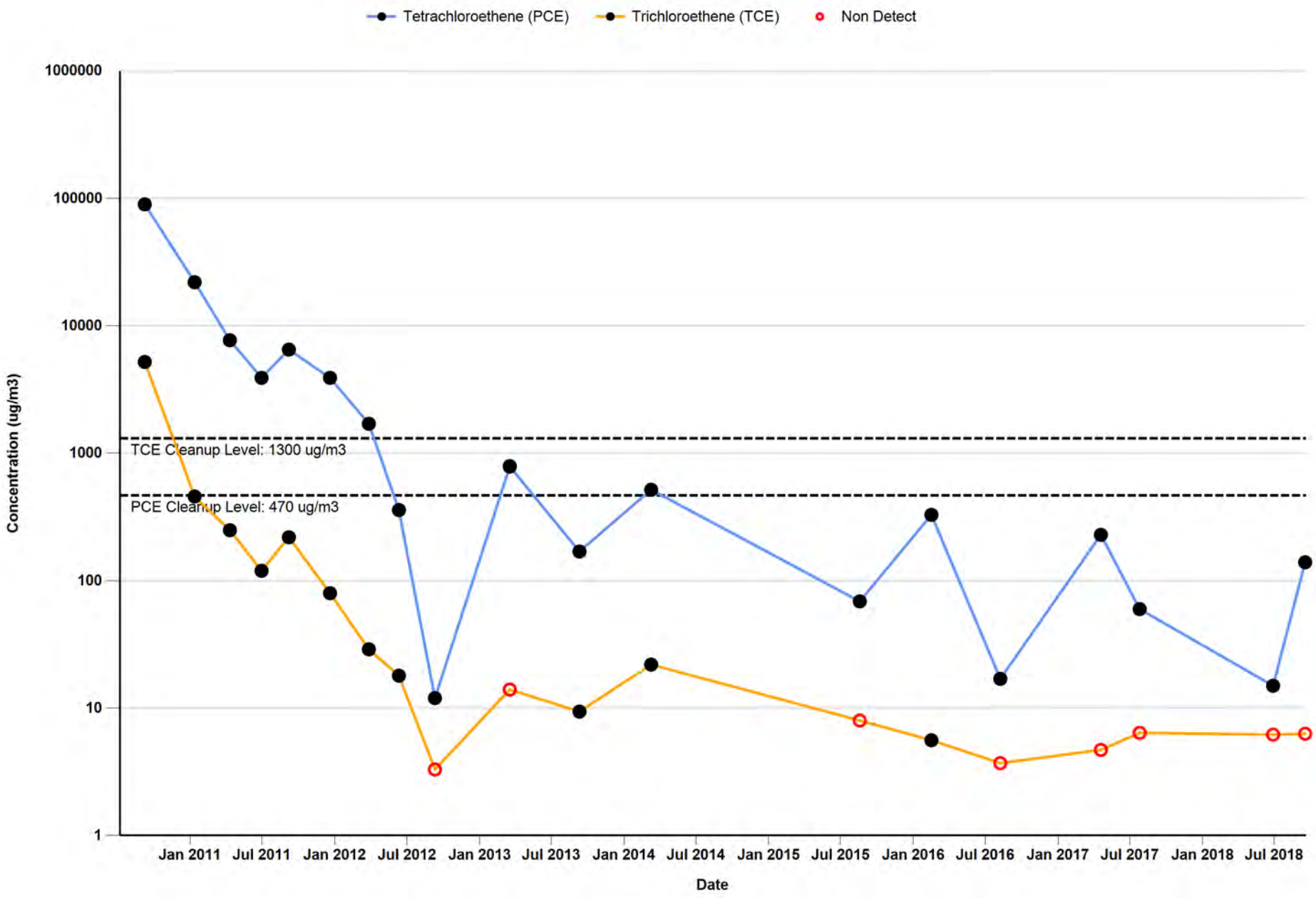
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-11
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-22 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



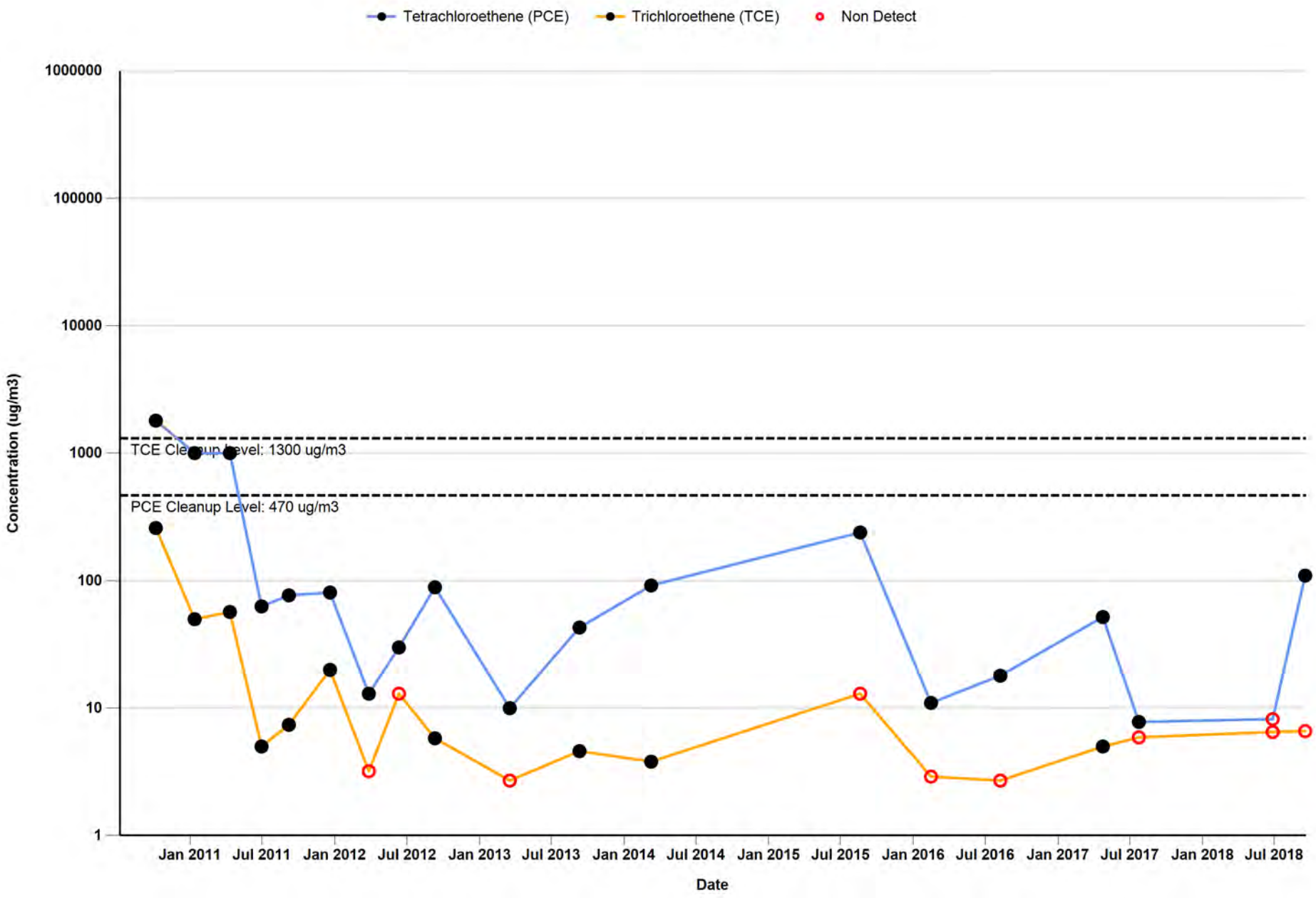
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-12
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-24 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



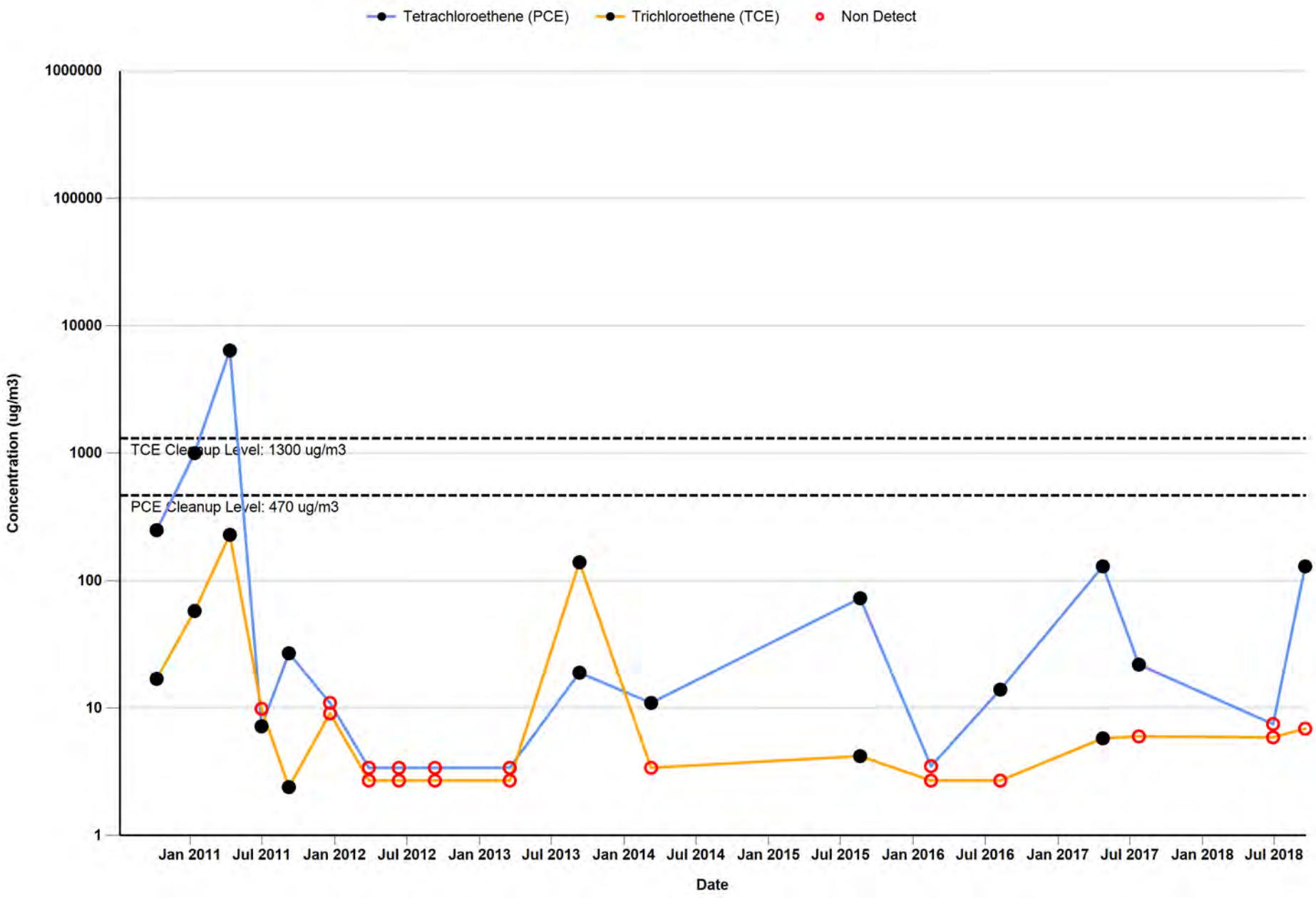
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-13
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-26 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



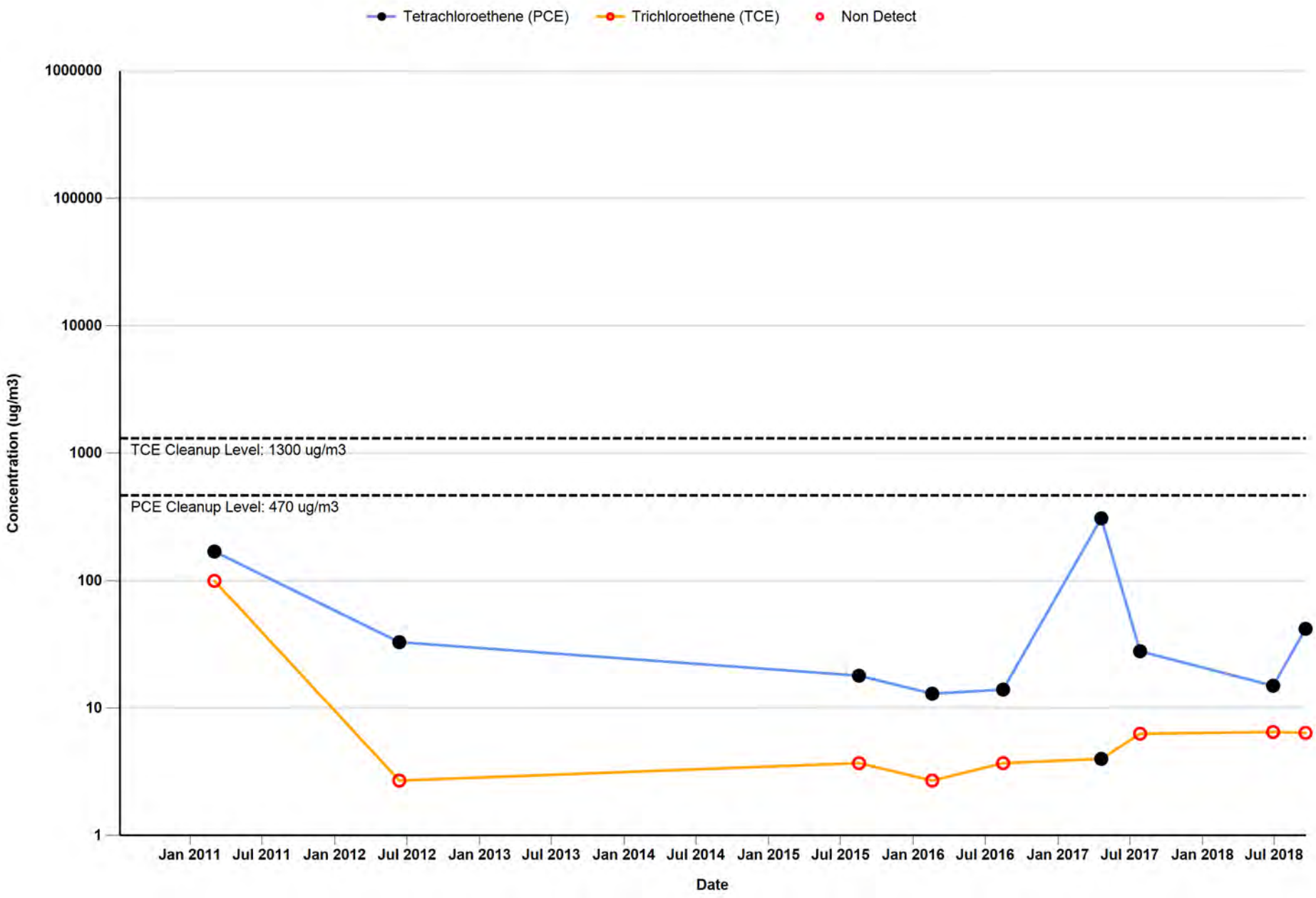
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-14
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-27 at 30 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-15
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-31 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

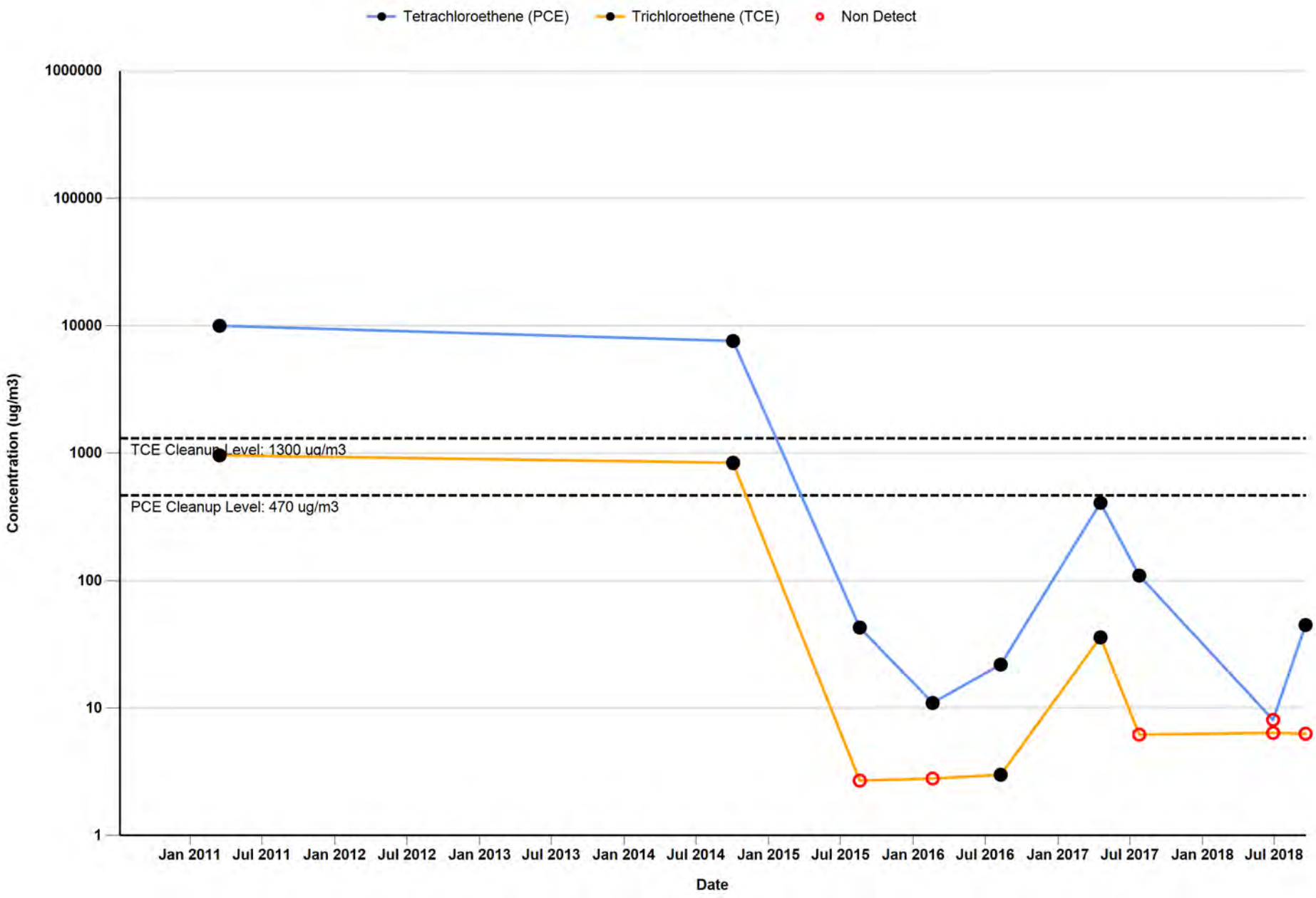


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-16
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-32 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

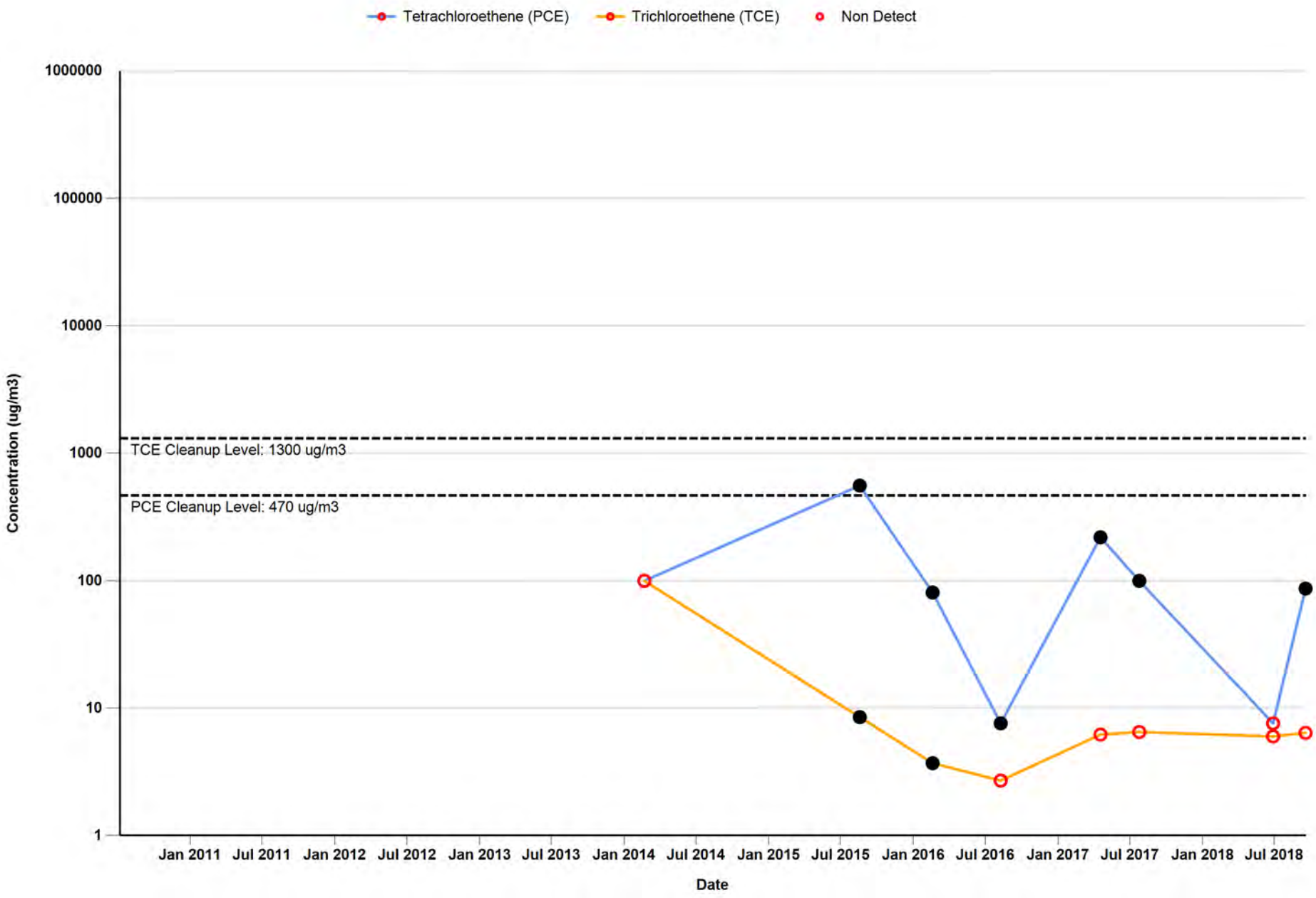
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-17
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-43 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-18
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-94 at 24 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

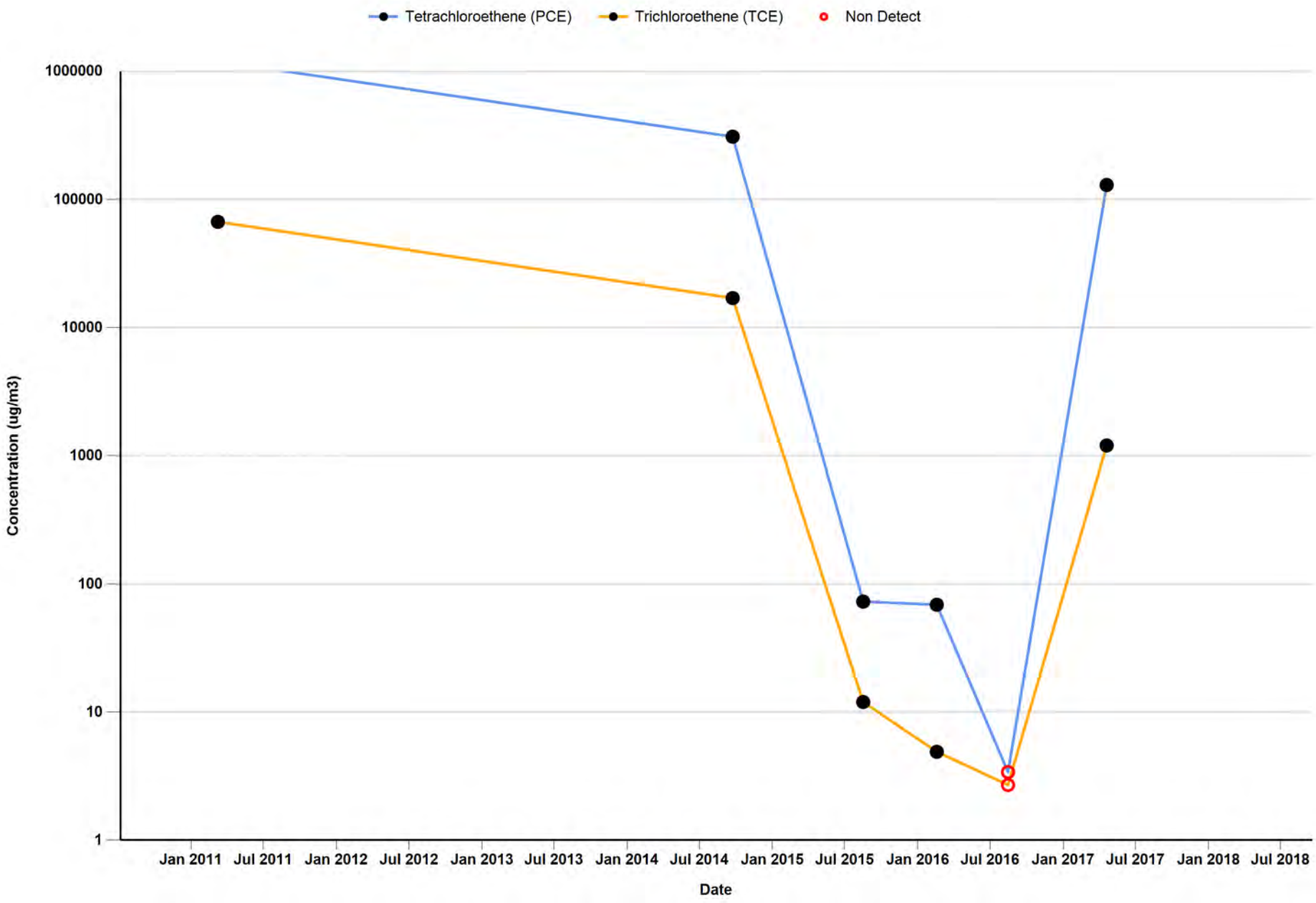


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-19
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-5 at 45 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

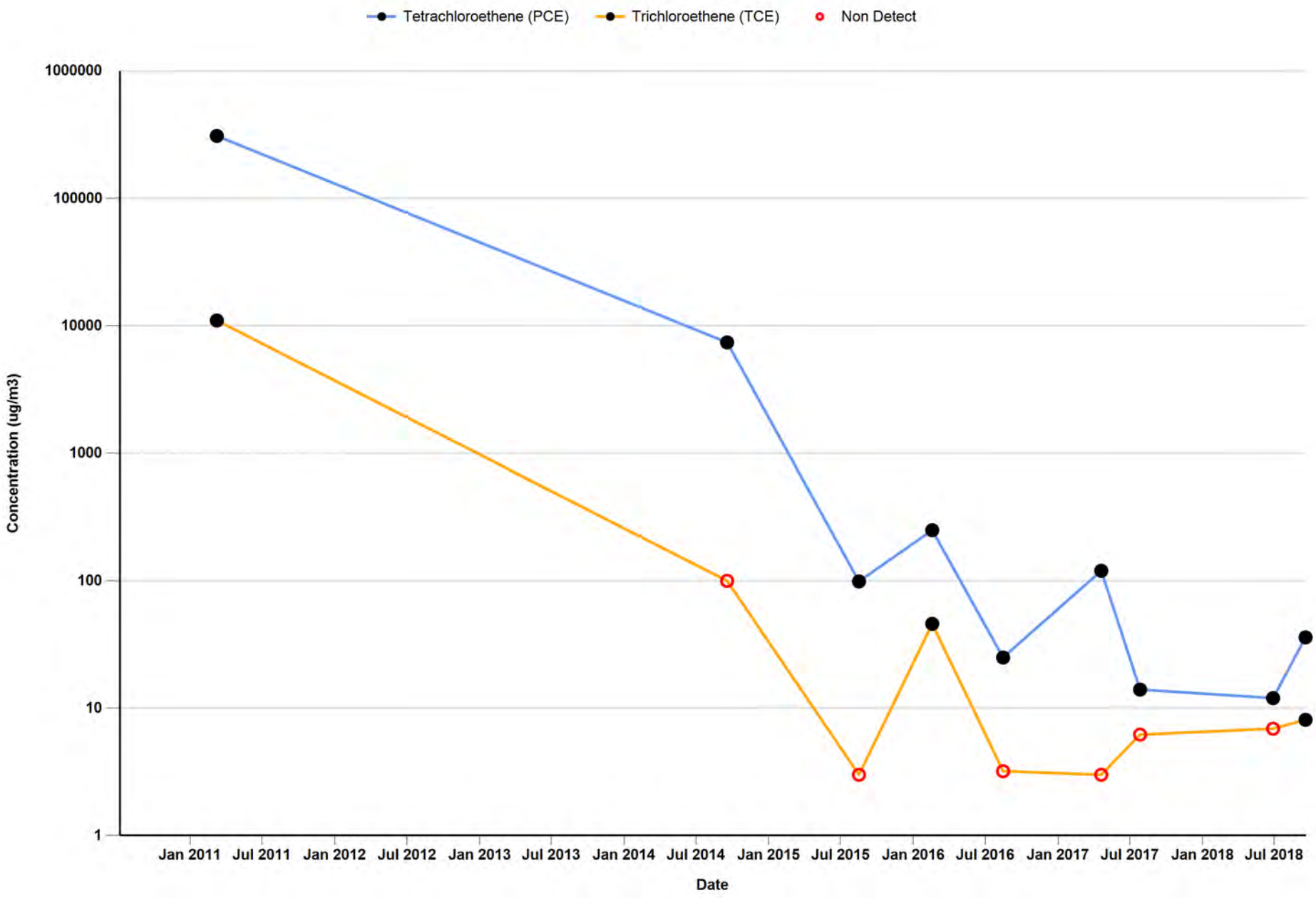
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-20
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-31 at 70 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



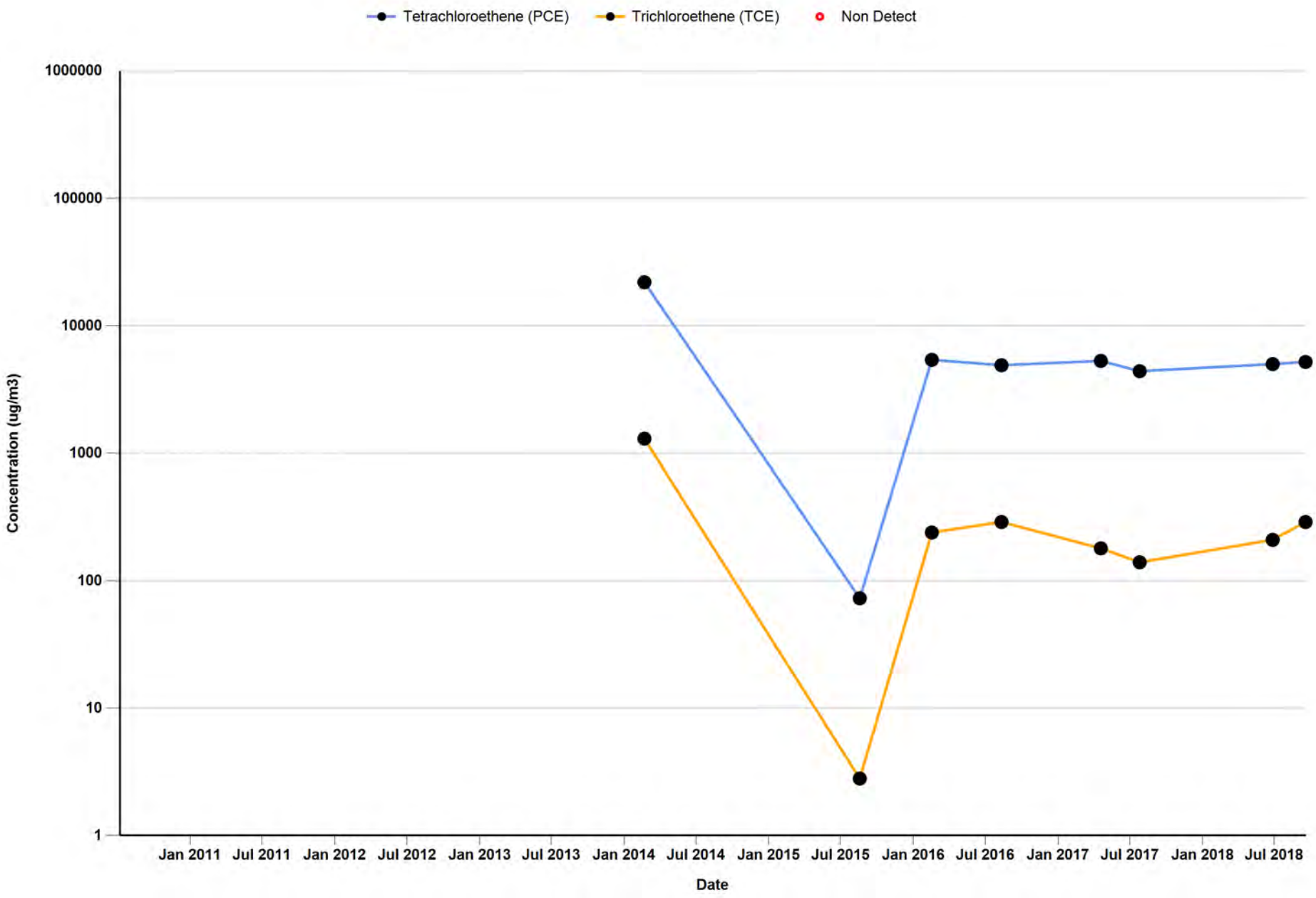
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-21
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-32 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



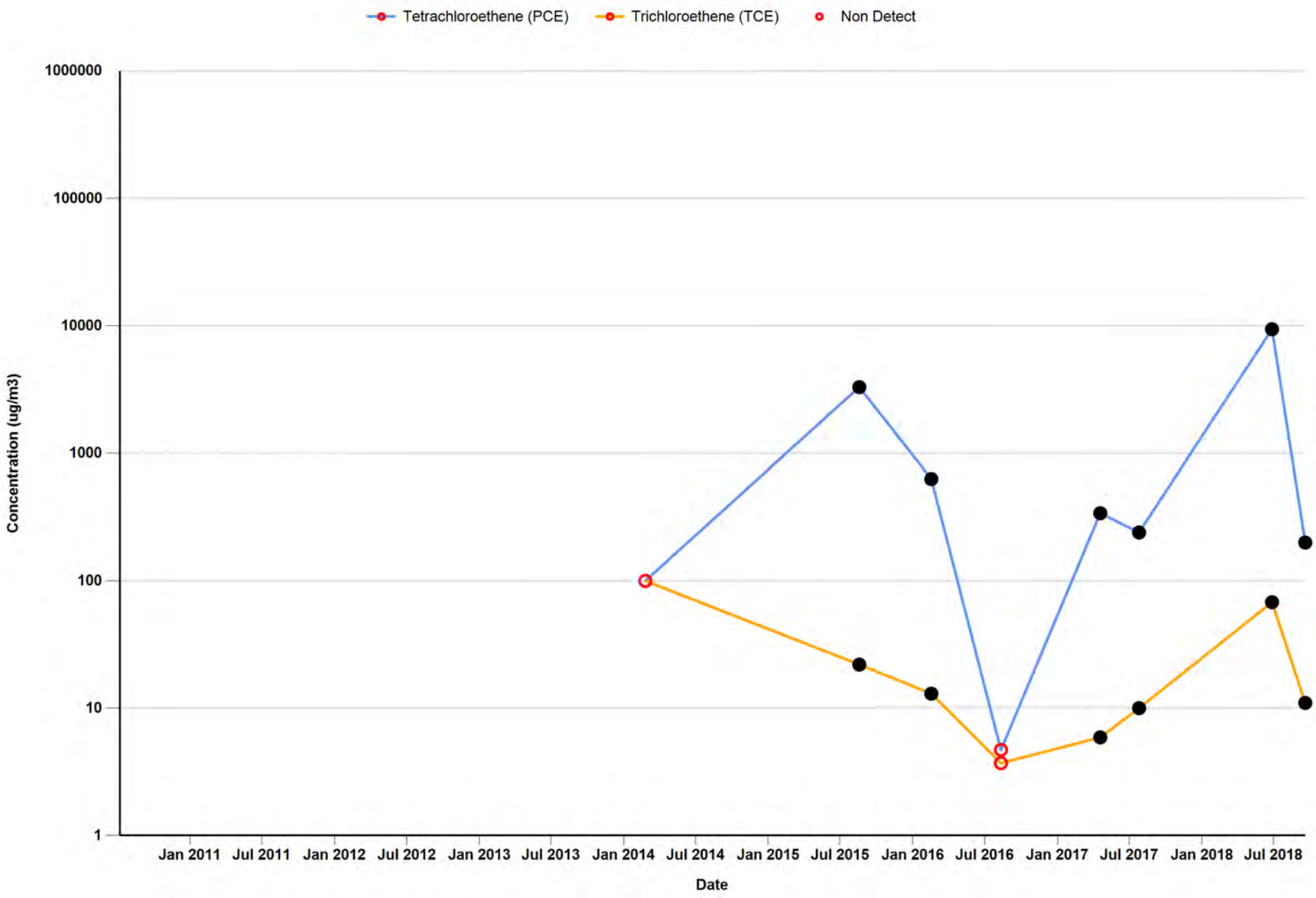
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-22
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-92 at 70 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



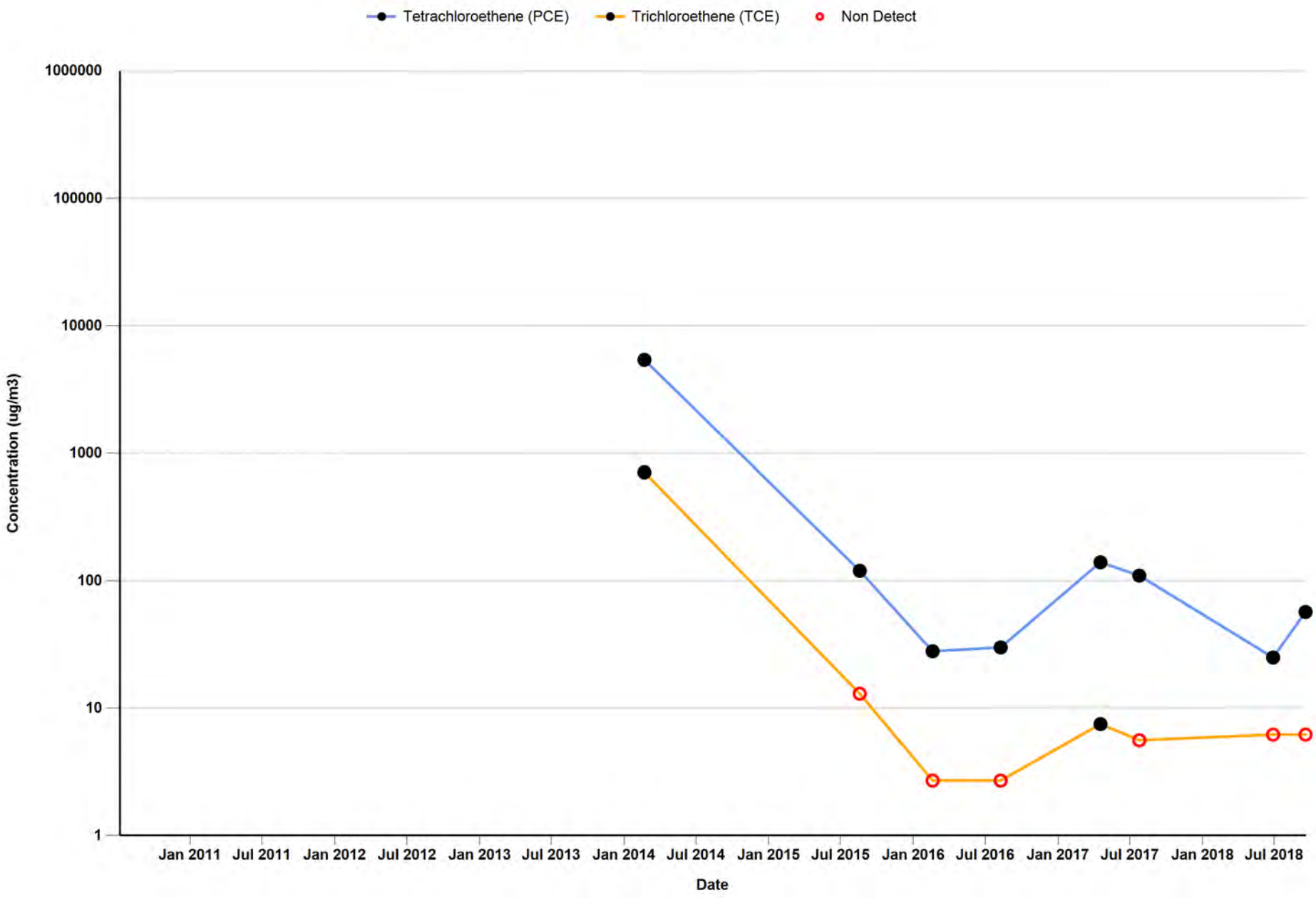
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-23
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-93 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



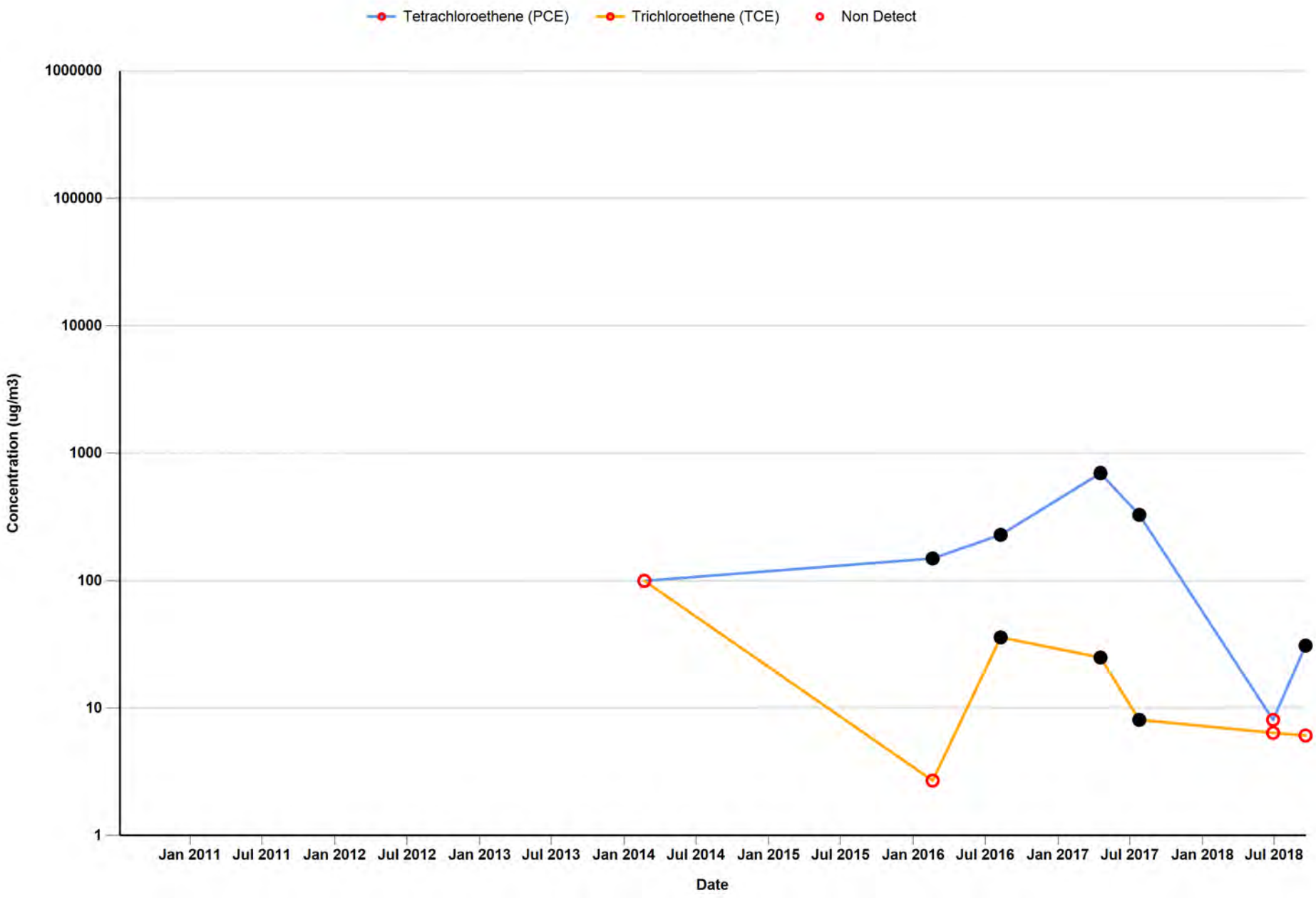
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-24
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-94 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment E, Figure E-25
Vapor Monitoring Probe PCE and TCE Concentrations
VMP-95 at 60 ft-bgs
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment F

OU-1 SVE System Operational Data

Attachment F, Table F-1
OU-1 SVE System Operational Data Demonstrating Substantive Compliance With SCAQMD Operational Limits
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

SCAQMD Limit[4]				**1280**	**145**				**15**			
HRA Changeout Criteria								**50[3]**		**90[3]**		
Date	**Interval Run Time (hr)**	**Up Time (%)**	**Influent Vapor Relative Humidity (%)**	**Influent Vapor Flow Rate (SCFM)**	**VGAC Influent Vapor Temperature (°F)**	**VGAC Effluent Vapor Temperature (°F)**	**VGAC Influent PID Measurement (ppmv)**	**VGAC Midpoint PID Measurement (ppmv)**	**VGAC Effluent PID Measurement (ppmv)**	**Lead VGAC Efficiency[1] (%)**	**Overall VGAC Efficiency[2] (%)**	**Mass Removed (lbs, monthly total)**
7/2/2018	169	100	48.9	1081	106.7	99.1	15.5	1.4	2.2	91	86	7.0
7/10/2018	192	100	50.5	1083	109.5	103.3	12.5	1.4	2.4	89	80	
7/16/2018	144	100	50.0	1050	107.7	104.0	18.3	2.5	1.6	87	91	
7/23/2018	169	100	40.5	1059	116.5	107.2	7.6	0.9	0.8	89	90	
7/30/2018	165	98	46.5	1045	107.8	102.6	7.0	0.6	0.8	92	89	
8/6/2018	168	100	50.5	1068	109.0	103.8	8.6	0.7	1.0	91	89	7.6
8/14/2018	193	100	40.0	1045	108.5	105.4	10.1	0.8	1.1	92	89	
8/21/2018	172	100	46.2	1071	114.7	107.2	7.2	0.8	1.0	88	86	
8/28/2018	162	97	56.5	1078	106.6	96.5	8.9	0.7	0.6	92	93	
9/4/2018	172	100	47.3	1077	111.8	102.8	11.2	1.5	1.9	87	83	8.4
9/10/2018	141	98	56.8	1088	108.1	98.9	6.8	0.4	0.6	94	91	
9/17/2018	170	100	40.3	1095	113.6	104.1	7.1	0.2	0.5	97	93	
9/25/2018	191	99	66.8	1130	103.8	92.6	13.6	0.2	0.2	99	98	
3nd Qtr 2018 Average		**99**	**49.3**	**1075**	**109.6**	**102.1**	**10.3**	**0.9**	**1.1**	**91**	**89**	**7.7**
											Total Mass Removed 3nd Qtr 2018	**23.0**
Compliance with SCAQMD Limits?				**YES**	**YES**				**YES**			
Carbon Changeout Required This Qtr?								**NO**		**NO**		

Notes:

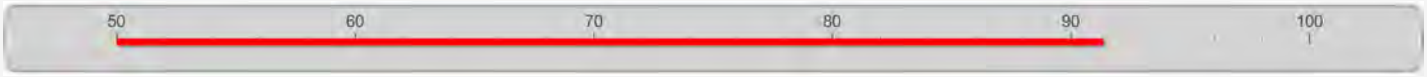
°F = degrees Fahrenheight
PID = photoionization detector
SCFM = Standard Cubic Feet per Minute
Qtr = quarter
SCAQMD = South Coast Air Quality Management District
VGAC = vapor phase granular activated carbon
ppmv = parts per million by volume as hexane
Hr = Hour
lbs = pounds

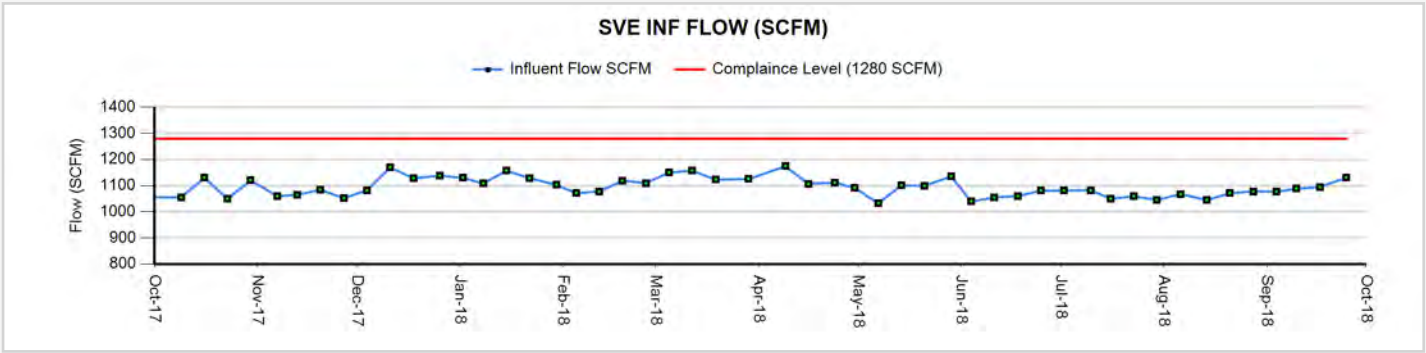
1. Lead VGAC efficiency is calculated by the PID readings between the influent and midpoint.
2. Overall VGAC efficiency is calculated by the PID readings between the influent and effluent.
3. Carbon changeouts are required when the efficiency across the lead VGAC vessel drops below 90% AND the midpoint concentration exceeds 50 ppmv as hexane, by PID during the same sampling event.
4. Limits are derived from the Health Risk Assessment (CDM Smith, 2015).

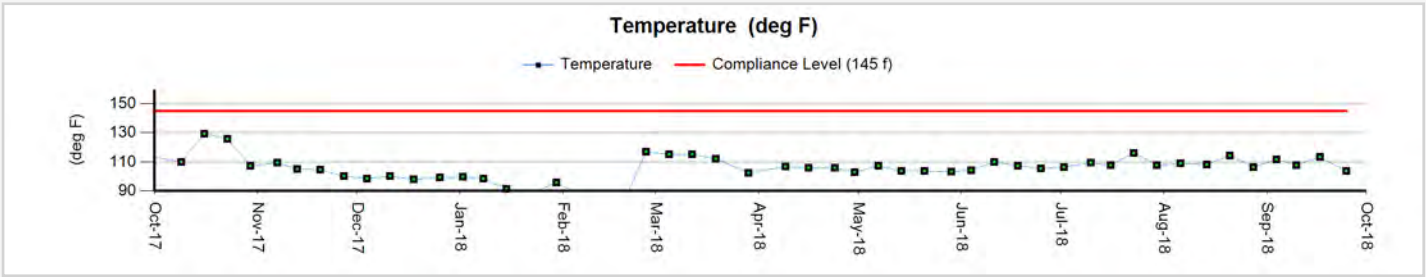
Attachment F, Figure F-1

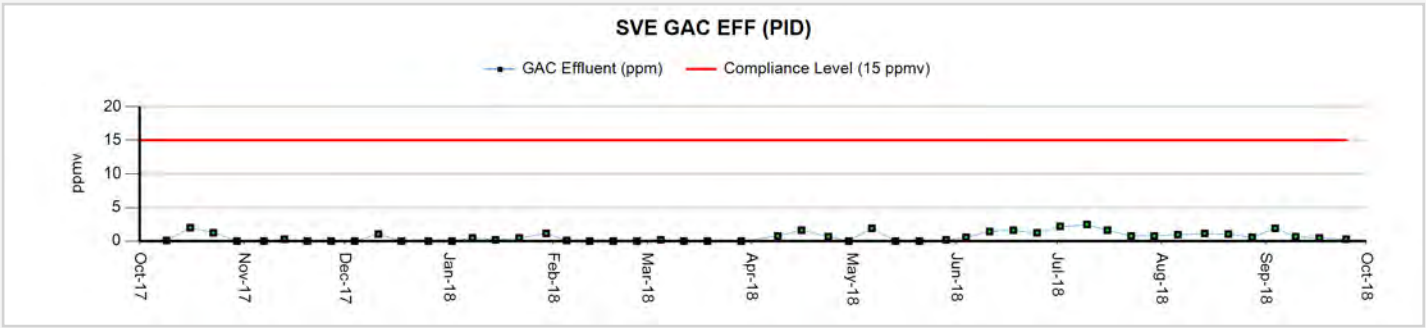
OU-1 SVE System Operational Data (Rolling One Year)

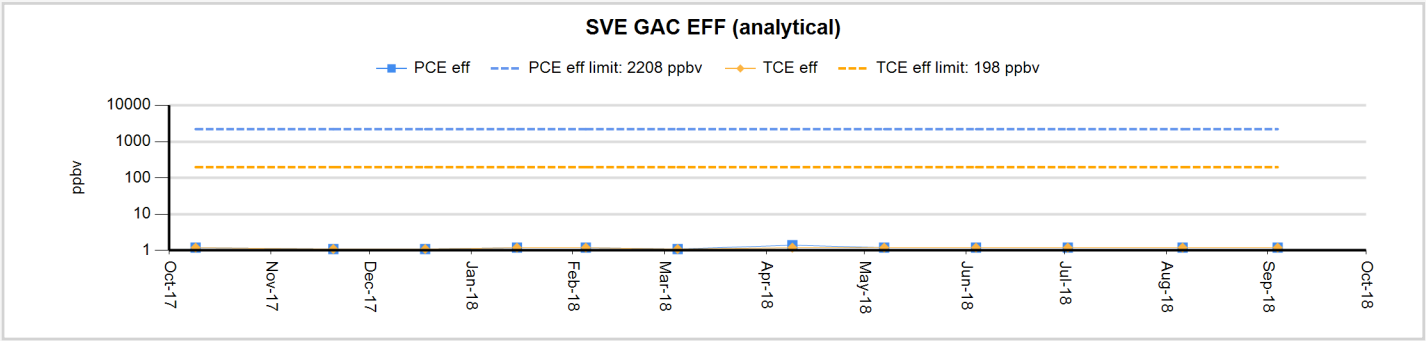
% Efficiency (PID) Across GAC Primary

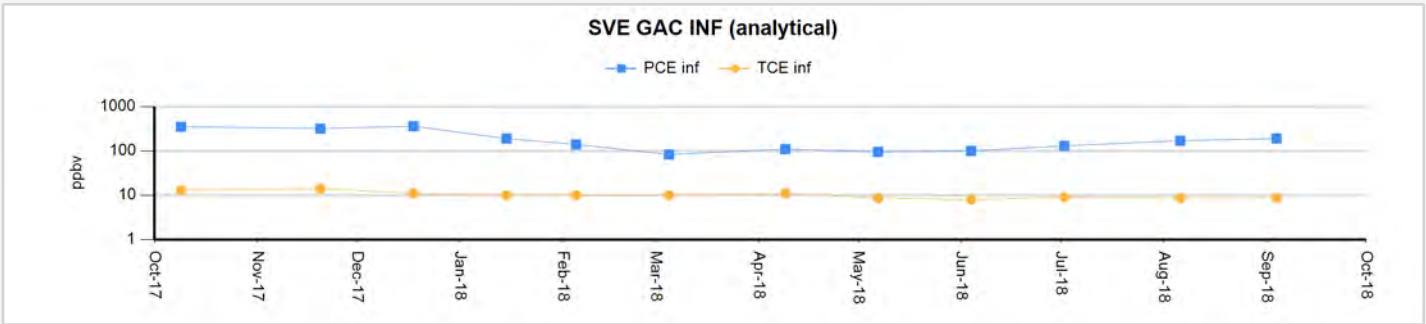












From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons@demaximis.com>
CC: "Bamer, Jeffrey" <BamerJT@cdmsmith.com>, Ed Modiano <edm@demaximis.com>, King Kyle <kking@demaximis.com>
Date: 8/2/2018 1:08 PM
Subject: Omega OU-1 SVE - July GAC Performance Assessment
Attachments: Omega OU-1 SVE GAC Changeout Assessment_July 2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of July 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

During the month of July, the OU-1 SVE system met the conditions presented in the HRA and was therefore substantively compliant (see table below):

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected July 2, 2018					
	Concentration (ppbv)				
Parameter	Influent	Midpoint	Effluent	HRA Effluent Limit	Substantively Compliant?
1,1,1-Trichloroethane (TCA)	8.2	5.7	2.8	34	Yes
1,1-Dichloroethane	1.2	1.3	1.2	15	Yes
1,1-Dichloroethene	3	3.2	4.1	1,243	Yes
1,2-Dichloroethane	1.2	1.5	1.2	14	Yes
Benzene	1.2	1.3	1.2	65	Yes
Carbon disulfide	4.7	5	4.8	1,007	Yes
Chloroform	1.2	1.3	1.2	48	Yes
Freon 11	1.5	1.5	1.5	1,801	Yes
Freon 113	9.8	6.8	1.5	9,799	Yes
Freon 12	1.2	1.3	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	4.7	5	4.8	60	Yes
Methyl ethyl ketone	11	25	22	75	Yes
Methylene chloride	12	13	12	1,082	Yes
o-Xylene	1.2	1.3	1.2	21	Yes
Tetrachloroethene (PCE)	130	1.3	1.2	2,208	Yes
TNMOC ref. to Heptane (MW=100)	2000	100	400	17,405	Yes
Toluene	1.2	1.3	1.2	47	Yes
Trichloroethene (TCE)	9	1.3	1.2	198	Yes
Vinyl chloride	1.2	1.3	1.2	84	Yes

Please let us know if you'd like to discuss these data or our assessment further.

Thanks!
Alesandra

Alesandra Reed, P.E.
Environmental Engineer
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555 17th St. #500
Denver, CO 80202
Mobile: (352) 222-2583
Office: (303) 383-2475

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons@demaximis.com>
CC: Modiano Ed <edm@demaximis.com>, King Kyle <kking@demaximis.com>, "Bamer,Jeffrey" <BamerJT@cdmsmith.com>
Date: 8/30/2018 1:04 PM
Subject: Omega OU-1 SVE - August GAC Assessment
Attachments: Omega OU-1 SVE GAC Changeout Assessment_Aug 2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of August 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

So far during the month of August, the OU-1 SVE system has met the conditions presented in the HRA and is therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit, except for MEK (see table below). While the MEK concentrations at all three monitoring locations exceeded the levels modeled in the HRA, the effluent concentration would not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant. This will be clarified in revised HRA.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected August 6, 2018					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	12	4.4	1.4	34	Yes
1,1-Dichloroethane	1.3	1.3	1.2	15	Yes
1,1-Dichloroethene	3.8	4.3	3.1	1,243	Yes
1,2-Dichloroethane	1.3	1.3	1.2	14	Yes
Benzene	1.3	1.3	1.2	65	Yes
Carbon disulfide	5	5.2	4.6	1,007	Yes
Chloroform	1.3	1.3	1.2	48	Yes
Freon 11	1.5	1.6	1.2	1,801	Yes
Freon 113	12	5.2	1.2	9,799	Yes
Freon 12	1.3	1.3	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	5	5.2	4.6	60	Yes
Methyl ethyl ketone	97	170	90	75	**No**
Methylene chloride	13	13	12	1,082	Yes
o-Xylene	1.3	1.3	1.2	21	Yes
Tetrachloroethene (PCE)	170	1.3	1.2	2,208	Yes
TNMOC ref. to Heptane (MW=100)	1500	390	470	17,405	Yes
Toluene	1.3	1.3	1.2	47	Yes
Trichloroethene (TCE)	8.6	1.3	1.2	198	Yes
Vinyl chloride	1.3	1.3	1.2	84	Yes

Please let us know if you have any questions or wish to discuss these data further.

Thanks!

Alesandra

From: "Reed, Alesandra F." <reedaf@cdmsmith.com>
To: "'jdinello@demaximis.com'" <jdinello@demaximis.com>, Coons Merry <mcoons@demaximis.com>
CC: Kyle King <kking@demaximis.com>, "Bamer, Jeffrey" <BamerJT@cdmsmith.com>, Modiano Ed <edm@demaximis.com>
Date: 9/21/2018 5:37 PM
Subject: Omega OU-1 SVE - September GAC Assessment
Attachments: Omega OU-1 SVE GAC Changeout Assessment_Sep 2018.xlsx

Team,

We evaluated the performance of the GAC used by the OU-1 SVE system for the month of September 2018, relative to the conditions listed in the Health Risk Assessment (HRA) (CDM Smith 2015). These conditions must be met to remain in substantive compliance with SCAQMD requirements.

So far during the month of September, the OU-1 SVE system has met the conditions presented in the HRA and is therefore substantively compliant:

- None of the toxic air contaminants listed in Condition #14 of the HRA were detected in the effluent above their respective effluent limit, except for MEK (see table below). While the MEK concentrations at all three monitoring locations exceeded the discharge limit modeled in the HRA, the effluent concentration does not result in the overall acute health index (HIA) exceeding 1, and therefore the system remains substantively compliant. This will be clarified in revised HRA.
- The OU-1 SVE system did not meet the two criteria for replacement of the lead GAC vessel (listed under Condition #12 of the HRA), and therefore no GAC replacement was required.
- No other carcinogenic air contaminants beyond those listed in Condition #14 of the HRA were detected in effluent above 10 ppbv, and therefore per Condition #16, no toxic risk assessment was required.

We also evaluated all the analytical and PID data and, based on our professional judgement, we do not recommend a voluntary changeout of the lead vessel GAC at this time.

OU-1 SVE GAC Assessment – Based on Samples Collected September 4, 2018					
	Concentration (ppbv)				
Parameter	**Influent**	**Midpoint**	**Effluent**	**HRA Effluent Limit**	**Below 2015 HRA Limit?**
1,1,1-Trichloroethane (TCA)	20	9.1	2.3	34	Yes
1,1-Dichloroethane	1.3	1.2	1.2	15	Yes
1,1-Dichloroethene	3.7	5.4	3.6	1,243	Yes
1,2-Dichloroethane	1.3	1.2	1.2	14	Yes
Benzene	1.3	1.2	1.2	65	Yes
Carbon disulfide	5.2	4.7	5	1,007	Yes
Chloroform	1.3	1.5	1.2	48	Yes
Freon 11	1.6	2.3	2.6	1,801	Yes
Freon 113	18	15	1.3	9,799	Yes
Freon 12	1.3	1.2	1.2	775	Yes
Isopropyl Alcohol (Isopropanol)	5.2	4.7	5	60	Yes
Methyl ethyl ketone	220	160	150	75	**No**
Methylene chloride	13	12	12	1,082	Yes
o-Xylene	1.4	1.2	1.2	21	Yes
Tetrachloroethene (PCE)	190	1.2	1.2	2,208	Yes
TNMOC ref. to Heptane (MW=100)	1600	370	640	17,405	Yes
Toluene	1.3	1.2	1.2	47	Yes
Trichloroethene (TCE)	8.7	1.2	1.2	198	Yes
Vinyl chloride	1.3	1.2	1.2	84	Yes

Please let us know if you have any questions or wish to discuss these data further.

Thanks!

Alesandra Reed, PE
Environmental Engineer
CDM Smith
555 17th Street, Suite 500, Denver, CO 80202
(cell) 352.222.2583, (office) 303.383.2475

Attachment G

Summary of VEW and DPE

Concentrations and Operational Data

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-1S	7/2/2018	SHALLOW	16.0	0.7	533	90.9	-16.0	44.8	0.1
	8/6/2018	SHALLOW	17.0	0.9		94.3	-16.0	44.9	
	9/4/2018	SHALLOW	18.0	0.6		95.6	-16.0	37.6	
VE-5S	7/2/2018	SHALLOW	25.0	0.7	700	96.4	-46.0	32.8	0.1
	8/6/2018	SHALLOW	24.0	1.2		99.2	-38.0	38.9	
	9/4/2018	SHALLOW	24.0	0.7		97.9	-26.0	43.7	
VE-6S	7/2/2018	SHALLOW	66.0	0.6	237	96.5	-20.0	28.5	0.2
	8/6/2018	SHALLOW	70.0	1.5		99.5	-20.0	34.8	
	9/4/2018	SHALLOW	65.0	0.6		97.4	-20.0	38.1	
VE-8S	7/2/2018	SHALLOW	145.0	1.9	3830	96.1	-23.0	34.4	4.0
	8/6/2018	SHALLOW	144.0	3.2		100.3	-24.0	35.1	
	9/4/2018	SHALLOW	137.0	2.0		96.6	-23.0	40.1	
VE-9S	7/2/2018	SHALLOW	41.0	1.2	1173	94.1	-47.0	31.1	0.5
	8/6/2018	SHALLOW	43.0	1.7		97.2	-47.0	38.5	
	9/4/2018	SHALLOW	35.0	1.0		96.6	-45.0	37.5	
VE-10S	7/2/2018	SHALLOW	40.0	0.9	269	95.8	-44.0	30.3	0.1
	8/6/2018	SHALLOW	37.0	1.2		96.5	-44.0	38.2	
	9/4/2018	SHALLOW	36.0	0.9		95.7	-40.0	36.4	
VE-11S	7/2/2018	SHALLOW	34.0	0.6	854	95.1	-6.0	35.9	0.4
	8/6/2018	SHALLOW	35.0	0.8		97.5	-7.0	44.1	
	9/4/2018	SHALLOW	90.0	0.7		96.7	-19.0	44.0	
VE-12S	7/2/2018	SHALLOW	48.0	0.7	178	94.3	-40.0	34.5	0.1
	8/6/2018	SHALLOW	46.0	1.0		95.9	-40.0	40.1	
	9/4/2018	SHALLOW	51.0	0.6		96.4	-40.0	35.0	
VE-14S	7/2/2018	SHALLOW	24.0	0.5	518	95.8	-6.0	39.1	0.1
	8/6/2018	SHALLOW	23.0	0.9		99.7	-8.0	38.2	
	9/4/2018	SHALLOW	25.0	0.6		94.8	-8.0	42.5	
VE-15S	7/2/2018	SHALLOW	23.0	1.0	372	91.3	-24.0	40.2	0.1
	8/6/2018	SHALLOW	14.0	1.4		94.8	-26.0	41.7	
	9/4/2018	SHALLOW	19.0	0.8		95.7	-24.0	39.7	

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-21S	7/5/2018	SHALLOW	30.0	0.0	314	85.5	-24.0	47.0	0.1
	8/8/2018	SHALLOW	32.0	0.3		89.9	-24.0	34.0	
	9/5/2018	SHALLOW	101.0	0.2		83.4	-50.0	48.9	
VE-31S	7/5/2018	SHALLOW	64.0	0.0	192	85.0	-18.0	50.3	0.1
	8/8/2018	SHALLOW	66.0	0.2		87.2	-18.0	38.4	
	9/5/2018	SHALLOW	64.0	0.2		83.6	-18.0	54.5	
VE-34S	7/5/2018	SHALLOW	63.0	0.0	181	82.6	-12.0	54.6	0.1
	8/8/2018	SHALLOW	62.0	0.2		88.3	-14.0	39.2	
	9/5/2018	SHALLOW	124.0	0.2		83.7	-36.0	51.0	
VE-39S	7/5/2018	SHALLOW	145.0	0.0	38	87.2	-40.0	40.3	0.2
	8/8/2018	SHALLOW	145.0	0.3		87.1	-40.0	37.5	
	9/5/2018	SHALLOW	180.0	0.3		84.0	-50.0	51.4	
DPE-3	7/2/2018	DEEP	127.0	3.6	9287	91.6	-40.0	37.6	8.6
	8/6/2018	DEEP	119.0	5.4		96.2	-40.0	38.8	
	9/4/2018	DEEP	118.0	4.2		95.1	-38.0	34.9	
DPE-4	7/2/2018	DEEP	152.0	8.4	902	91.2	-42.0	35.6	1.8
	8/6/2018	DEEP	145.0	10.1		96.1	-42.0	39.8	
	9/4/2018	DEEP	156.0	6.6		95.6	-42.0	36.3	
DPE-5	7/2/2018	DEEP	105.0	1.2	857	91.5	-44.0	33.4	0.9
	8/6/2018	DEEP	105.0	1.2		97.1	-44.0	39.2	
	9/4/2018	DEEP	105.0	1.1		102.3	-42.0	27.0	
DPE-8	7/2/2018	DEEP	68.0	1.1	470	88.9	-22.0	36.7	0.3
	8/6/2018	DEEP	74.0	1.3		97.0	-20.0	39.5	
	9/4/2018	DEEP	67.0	1.6		110.0	-20.0	23.4	
DPE-9	7/2/2018	DEEP	89.0	1.0	254	89.6	-20.0	36.8	0.3
	8/6/2018	DEEP	93.0	0.9		96.4	-20.0	37.9	
	9/4/2018	DEEP	88.0	1.1		102.9	-20.0	33.3	
VE-2D	7/2/2018	DEEP	123.0	31.7	6276	97.4	-37.3	30.6	4.9
	8/6/2018	DEEP	141.0	40.7		103.2	-35.3	29.3	
	9/4/2018	DEEP	90.0	28.1		95.0	-33.3	39.0	

Attachment G, Table G-1
VEW / DPE Quarterly Operational Summary and Calculated Mass Removed
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Measurement Date	Shallow / Deep	Flow (SCFM)	PID (ppmv)	Analytical Total VOCs[2] (ug/m3)	Temperature (deg. F)	Vacuum (in H_2O, gauge)	Relative Humidity (%)	Calculated Mass Removed[1] (lbs)
VE-6D	7/5/2018	DEEP	108.0	0.0	309	84.3	-10.0	51.2	0.2
	8/8/2018	DEEP	105.0	0.3		89.1	-10.0	34.5	
	9/5/2018	DEEP	103.0	0.2		82.8	-10.0	56.9	
VE-7D	7/5/2018	DEEP	242.0	0.0	1256	83.5	-46.0	49.4	2.0
	8/8/2018	DEEP	236.0	0.6		88.1	-46.0	35.9	
	9/5/2018	DEEP	230.0	0.5		83.5	-44.0	52.9	
VE-10D	7/5/2018	DEEP	111.0	0.0	612	82.2	-16.0	52.2	0.5
	8/8/2018	DEEP	115.0	0.6		90.4	-18.0	37.6	
	9/5/2018	DEEP	243.0	0.3		83.7	-36.0	49.9	
VE-14D	7/2/2018	DEEP	87.0	1.0	245	91.0	-26.0	35.6	0.3
	8/6/2018	DEEP	90.0	0.9		95.4	-24.0	41.5	
	9/4/2018	DEEP	92.0	0.7		98.9	-24.0	34.6	

Notes:

DPE = dual phase extraction
ppmv = parts per million by volume
VOC = volatile organic compound
F = Fahrenheight
SCFM = standard cubic feet per minute
Shallow = between 0 and 30 feet below ground surface
lbs = pounds
ug/m3 = micrgrams per liter
Deep = between approximately 30 and 100 feet below ground surface
PID = photoionization detector
VE = vapor extraction
-- = Not measured

in H_2O, gauge = inches of water pressure, relative to atmospheric pressure; a negative gauge pressure is considered vaccum

1. Calculations are based on a subset of total VOC data from monthly laboratory analyses of vapor samples and measured flow rates from individual VEWs and the total system influent. Mass calculations are rounded to nearest 0.1 pound. If less than 0.05 pounds were calculated for the period, this will show as 0.0 pounds. VOCs that are not detected above the RLs are not included in the mass calculation.

2. A subset of VOC data used in mass removed calculations. TVOC concentrations are calculated using the detected concentrations from the following compounds: Tetrachloroethene (PCE), Trichloroethene (TCE), 1,1-Dichloroethene, Vinyl chloride, 1,1,1-Trichloroethane (TCA), 1,1-Dichloroethane, 1,2-Dichloroethane, Chloroform, Methylene chloride, Freon 11, Freon 12, Freon 113, Benzene, Toluene, o-Xylene, Carbon disulfide, Methyl ethyl ketone, Isopropyl Alcohol (Isopropanol), which account for approximately 98% of compounds in the data stream. Samples collected 9/4/2018. Lab reports provided in Attachment B.

Attachment G, Table G-2
VEW / DPE Quarterly Extraction Well Analytical Data Summary
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location[1]	Sample Date	Depth	PCE	TCE	VC	11DCA	12DCA	CF	MeC	Benzene
VE-1S	9/4/2018	SHALLOW	110	13	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VE-5S	9/4/2018	SHALLOW	550	20	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9
VE-6S	9/4/2018	SHALLOW	68	15	3 U	4.8 U	4.8 U	5.8 U	41 U	3.9
VE-8S	9/4/2018	SHALLOW	2900	38	3 U	4.7 U	4.7 U	5.7 U	40 U	12
VE-9S	9/4/2018	SHALLOW	940	33	3.1 U	4.9 U	4.9 U	6 U	42 U	3.9 U
VE-10S	9/4/2018	SHALLOW	8.3 U	6.6 U	3.1 U	4.9 U	4.9 U	6 U	42 U	64
VE-11S	9/4/2018	SHALLOW	690	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	14
VE-12S	9/4/2018	SHALLOW	28	6.4 U	3 U	4.8 U	4.8 U	5.8 U	41 U	35
VE-14S	9/4/2018	SHALLOW	44	6.6 U	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VE-15S	9/4/2018	SHALLOW	130	21	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VE-21S	9/4/2018	SHALLOW	14	6.7 U	3.2 U	5 U	5 U	6.1 U	43 U	4 U
VE-31S	9/4/2018	SHALLOW	99	7.4	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.7 U
VE-34S	9/4/2018	SHALLOW	61	6.4 U	3.1 U	4.8 U	4.8 U	5.8 U	42 U	3.8 U
VE-39S	9/4/2018	SHALLOW	38	6.5 U	3.1 U	4.9 U	4.9 U	5.9 U	42 U	3.9 U
DPE-3	9/4/2018	DEEP	8300	110	10 U	17 U	17 U	20 U	140 U	13 U
DPE-4	9/4/2018	DEEP	310	120	3.1 U	5 U	5 U	6 U	43 U	3.9 U
DPE-5	9/4/2018	DEEP	480	24	3.1 U	4.9 U	4.9 U	7.8	42 U	3.8 U
DPE-8	9/4/2018	DEEP	240	33	3 U	4.7 U	4.7 U	5.7 U	41 U	7
DPE-9	9/4/2018	DEEP	130	7.5	3 U	4.7 U	4.7 U	11	40 U	3.7 U
VE-2D	9/4/2018	DEEP	5300	95	9 U	14 U	14 U	17 U	120 U	11 U
VE-6D	9/4/2018	DEEP	160	14	2.9 U	4.5 U	4.5 U	9.4	39 U	3.6 U
VE-7D	9/4/2018	DEEP	450	94	3.1 U	5 U	5 U	6 U	42 U	3.9 U
VE-10D	9/4/2018	DEEP	370	26	3.1 U	4.8 U	7.3	29	42 U	5.4
VE-14D	9/4/2018	DEEP	74	41	3.2 U	5.1 U	5.1 U	6.2 U	44 U	4 U

Notes:

All Units in micrograms per liter (ug/m3)

DEEP = between approximately 30 and 100 feet below ground surface

U = Not detected above reporting limit listed

DPE = dual phase extraction

TCE = Trichloroethene

11DCA = 1,1-Dichloroethane

MeC = Methylene Chloride

SHALLOW = between 0 and 30 ft below ground surface

PCE = Tetrachloroethene

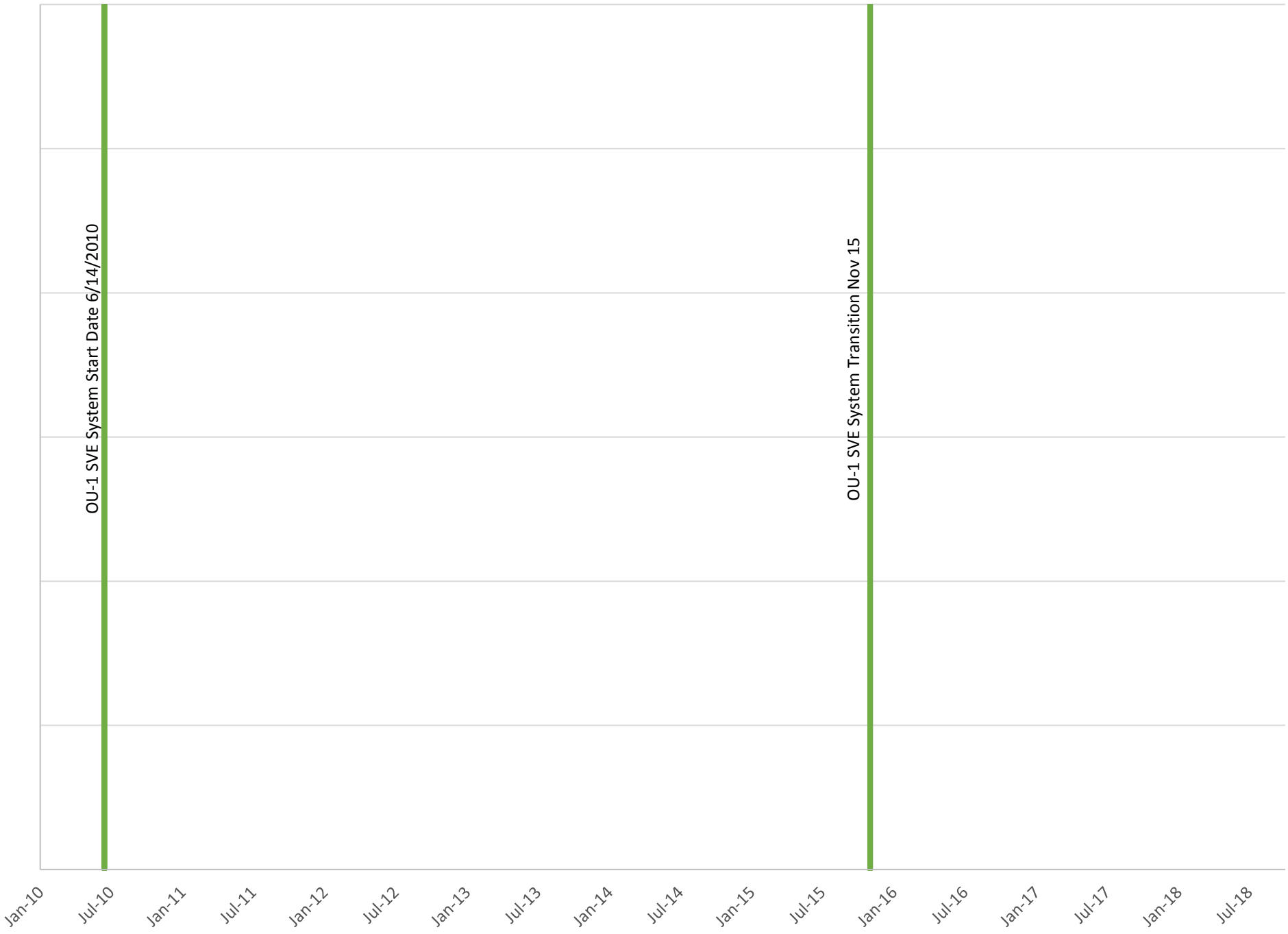
VC = Vinyl Chloride

12DCA = 1,2-Dichloroethane

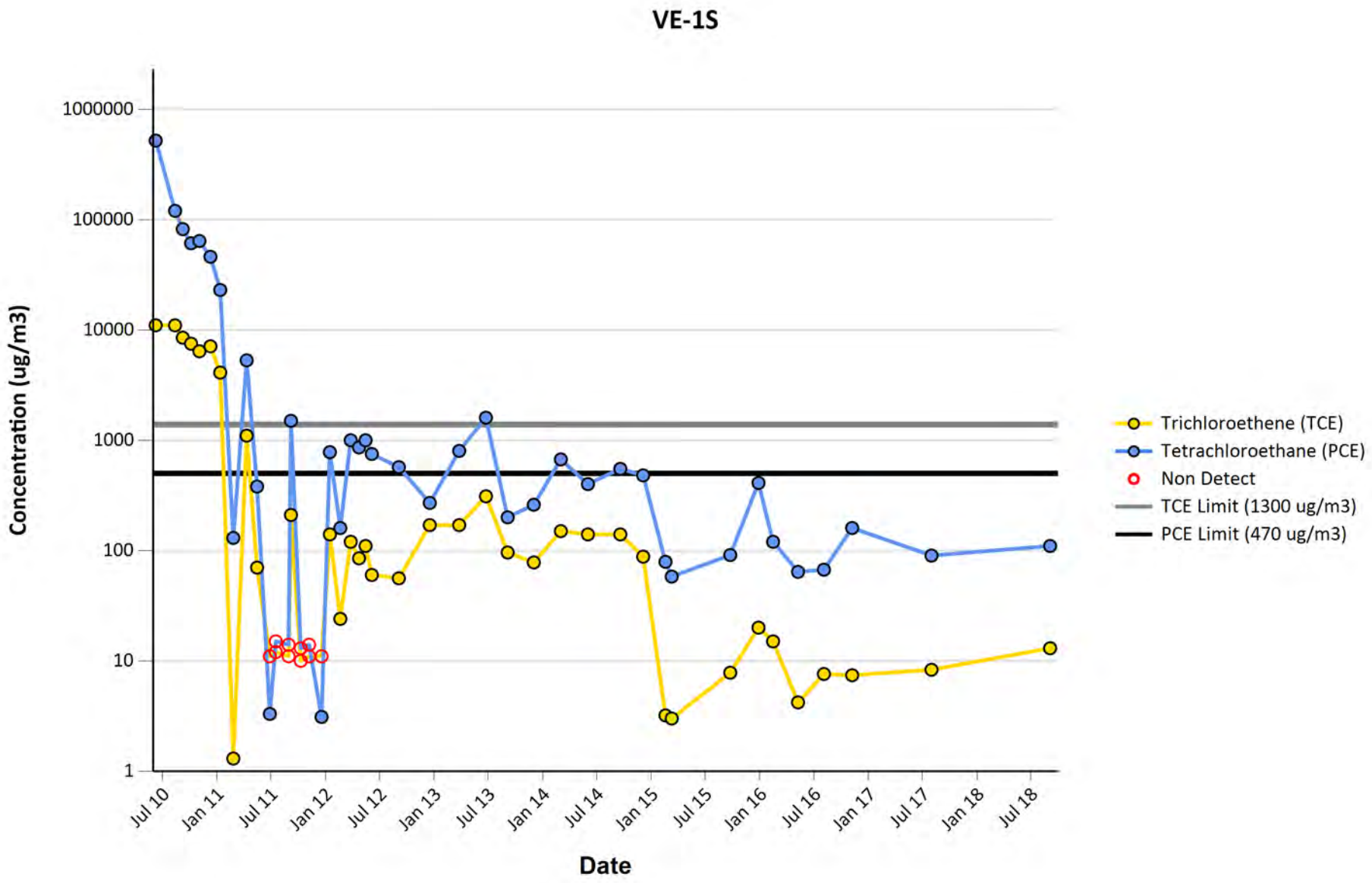
CF = Chloroform

1. VEWs are not required to be sampled each quarter. If VEWs are sampled, it is based on operational considerations and to assist in mass calculations. All VEWs are sampled once per year.

OU-1 Soil Vapor Extraction System Timeline
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site

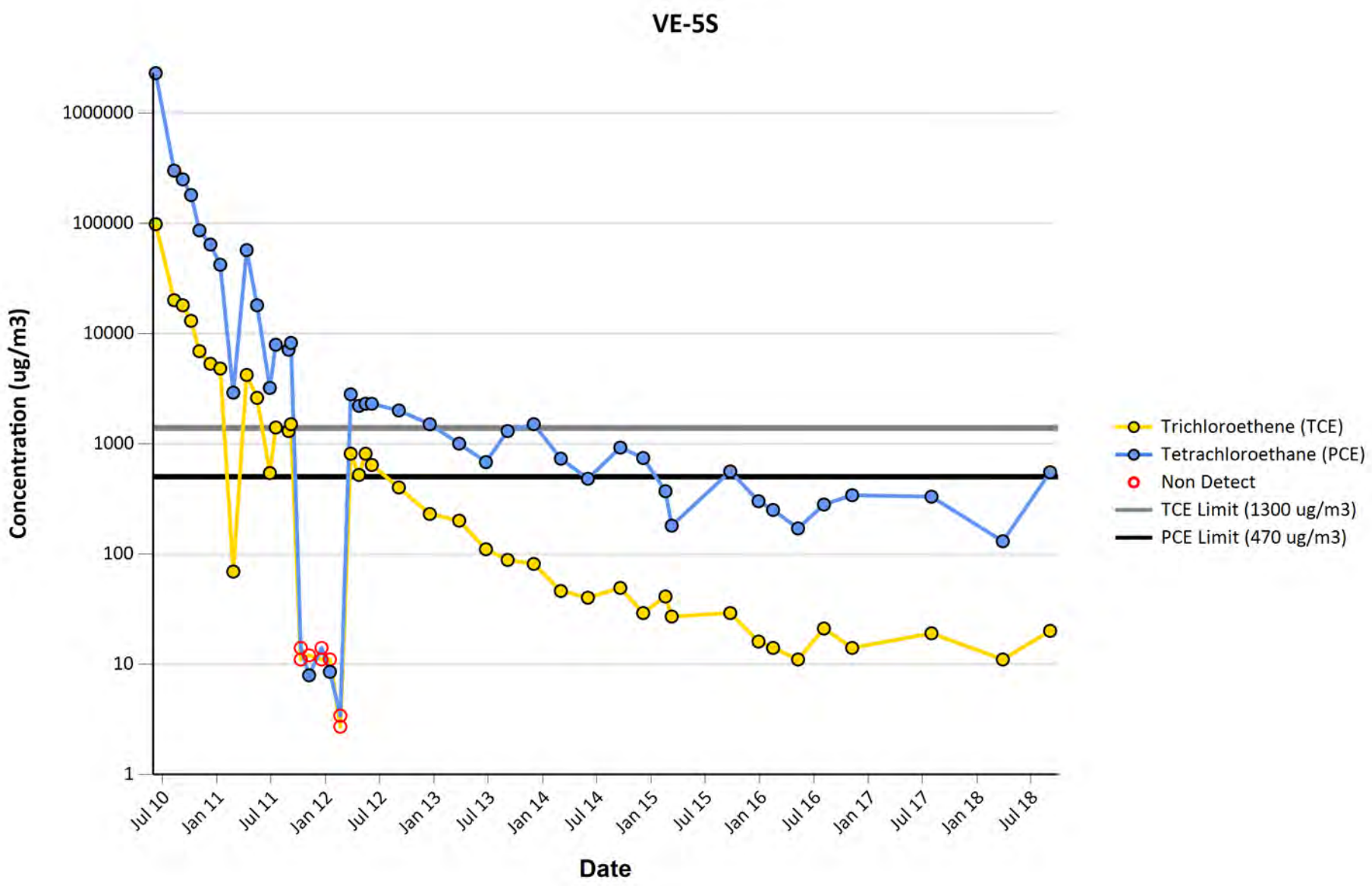


Attachment G, Figure G-1
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



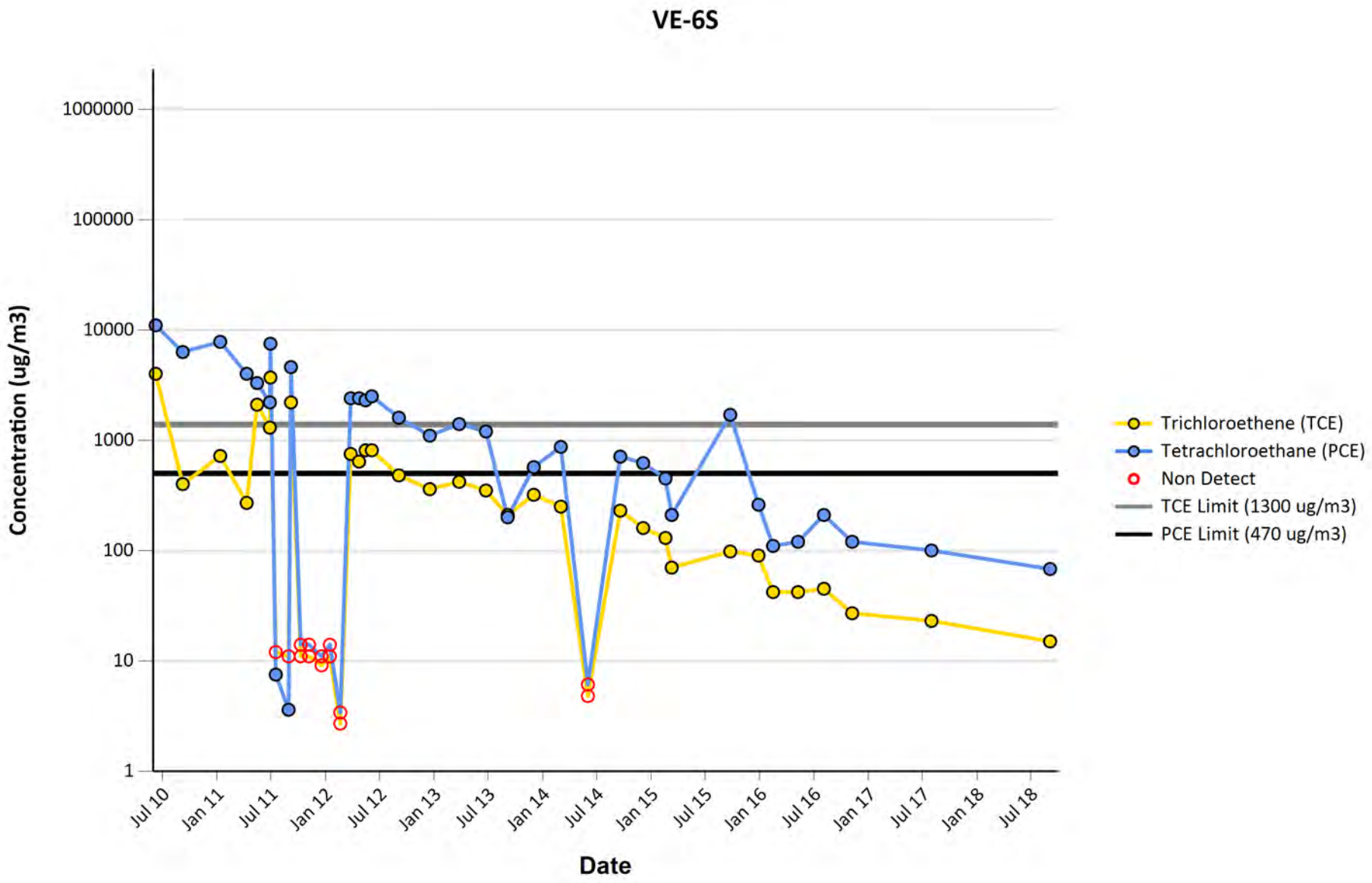
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-2
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



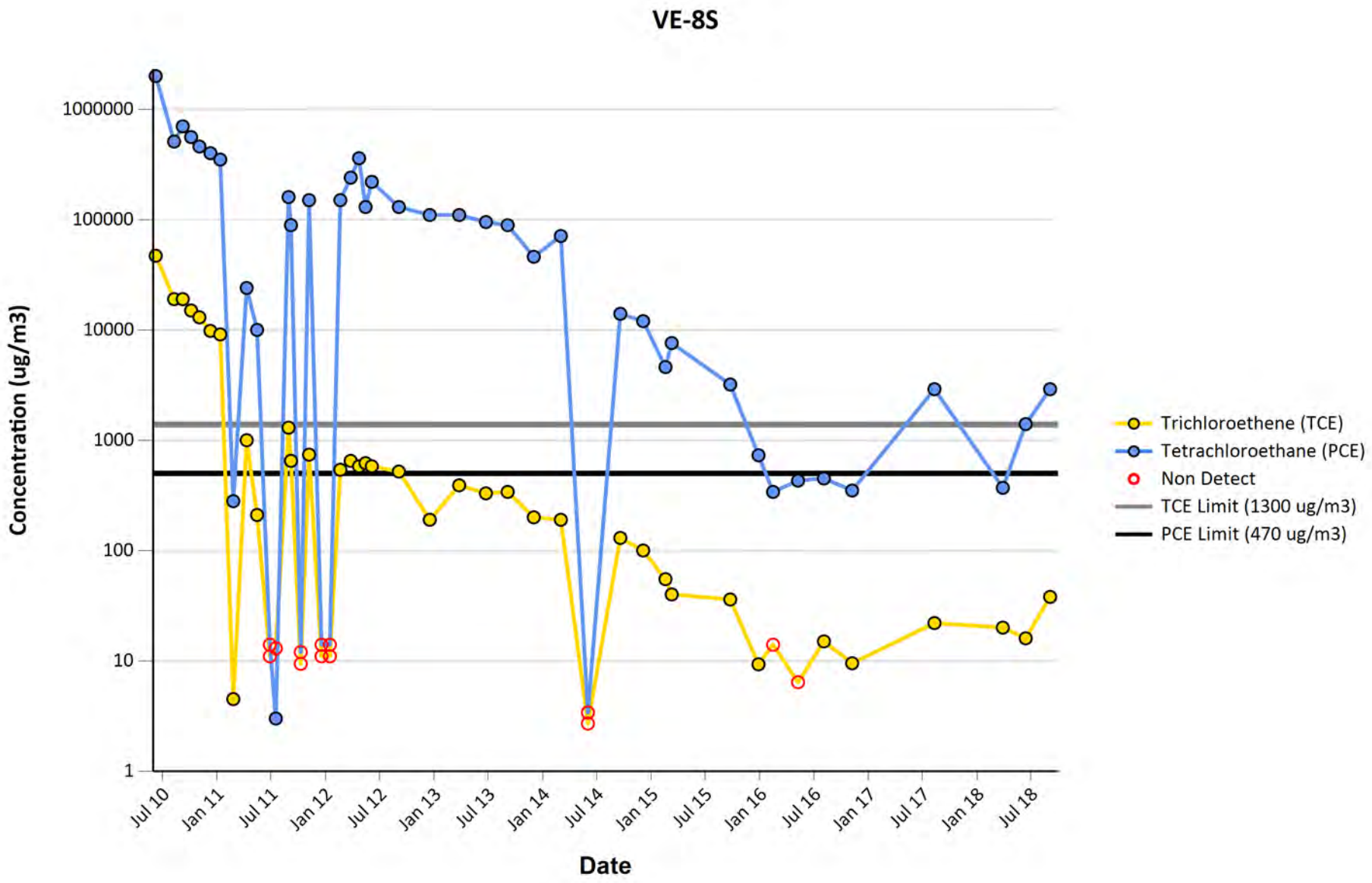
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-3
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



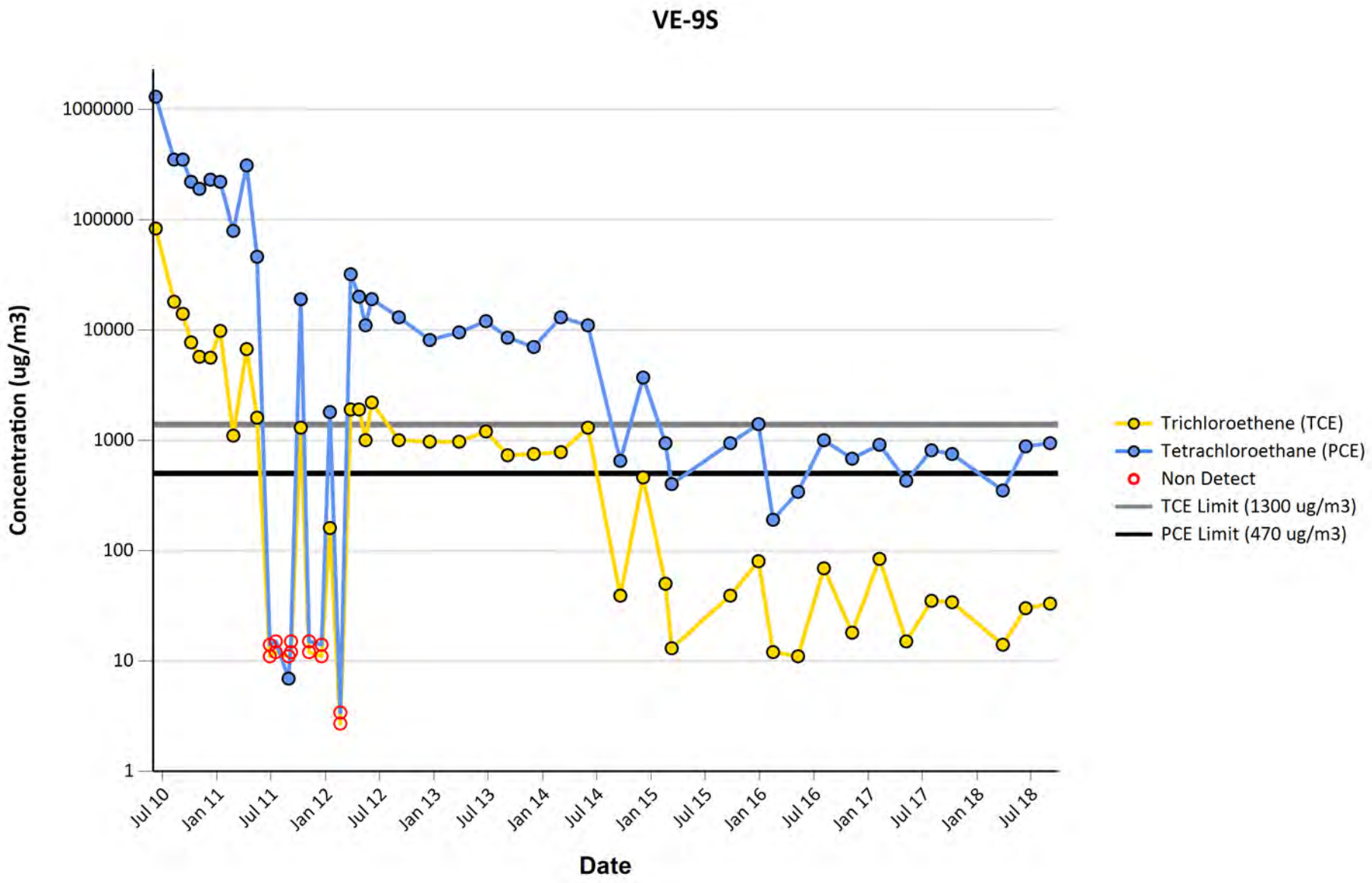
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-4
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



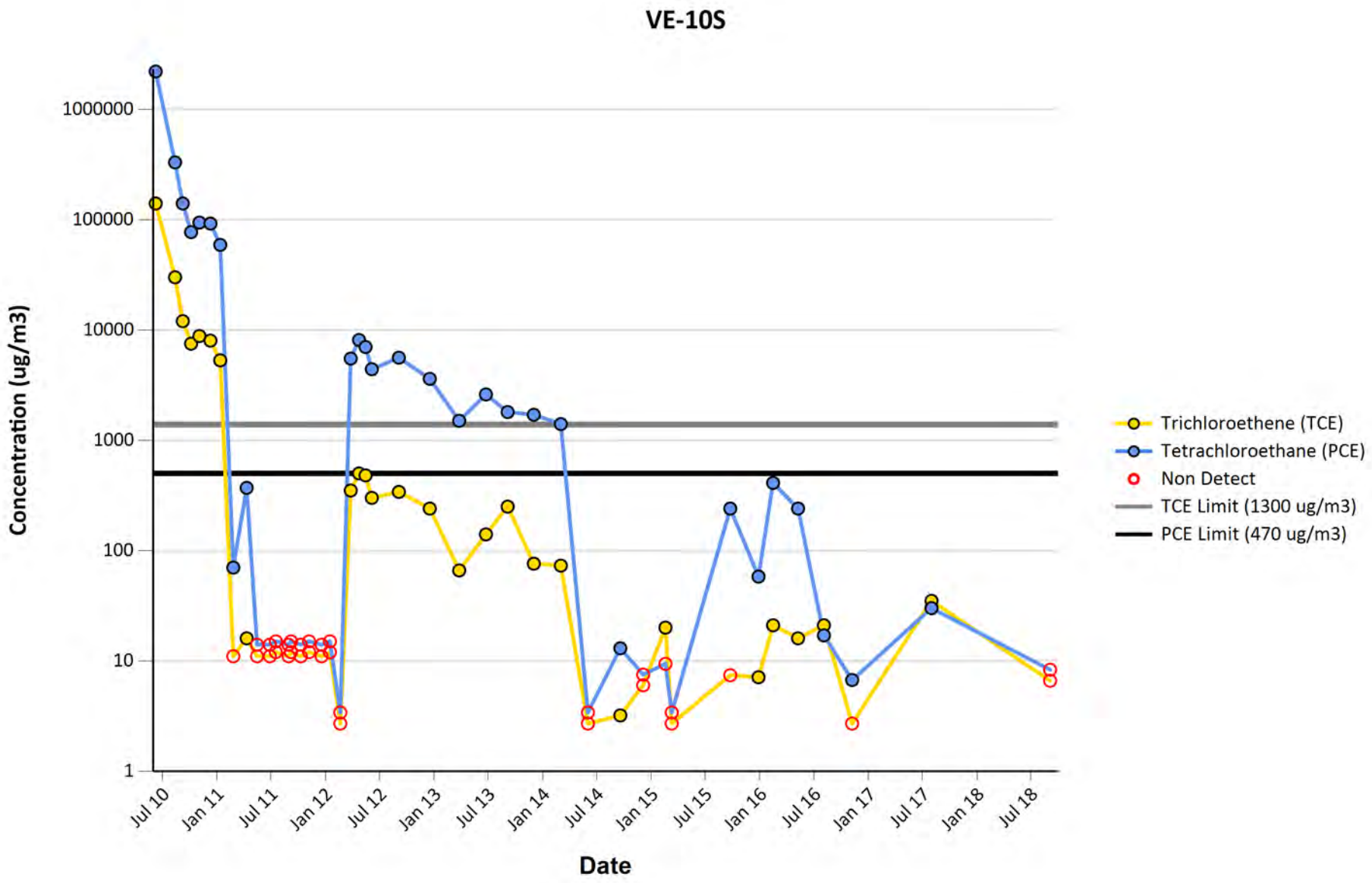
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-5
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



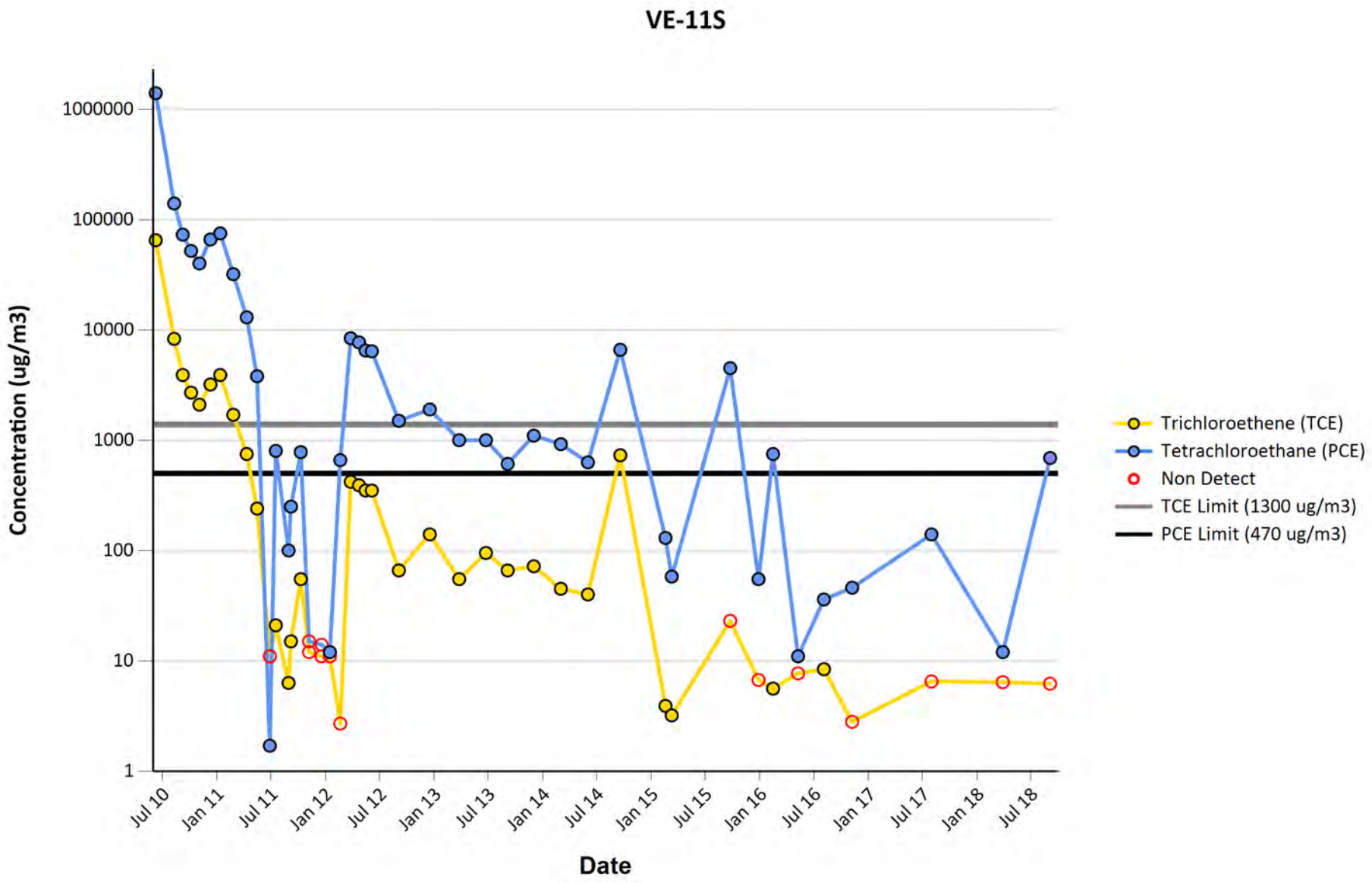
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-6
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



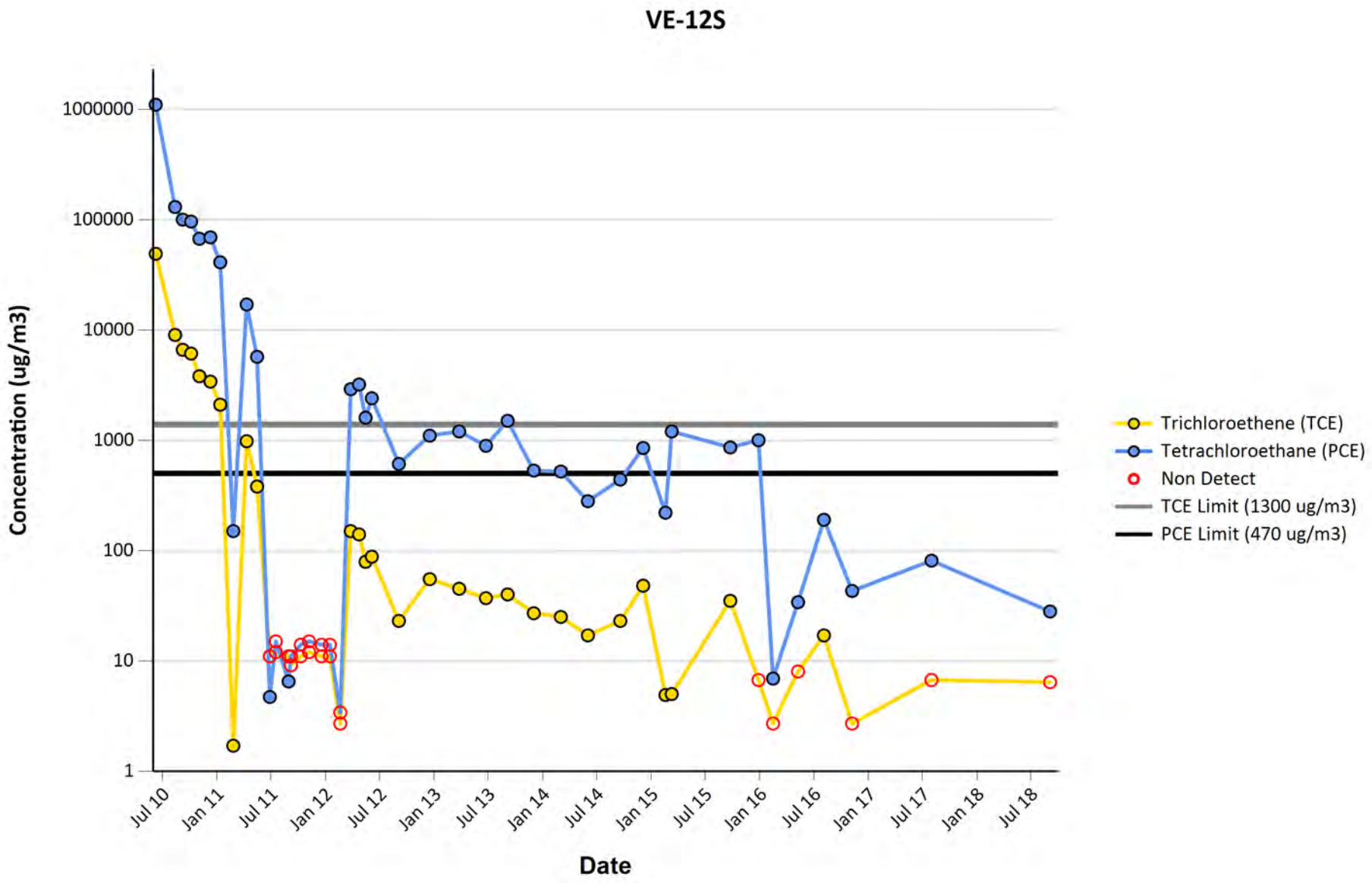
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-7
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



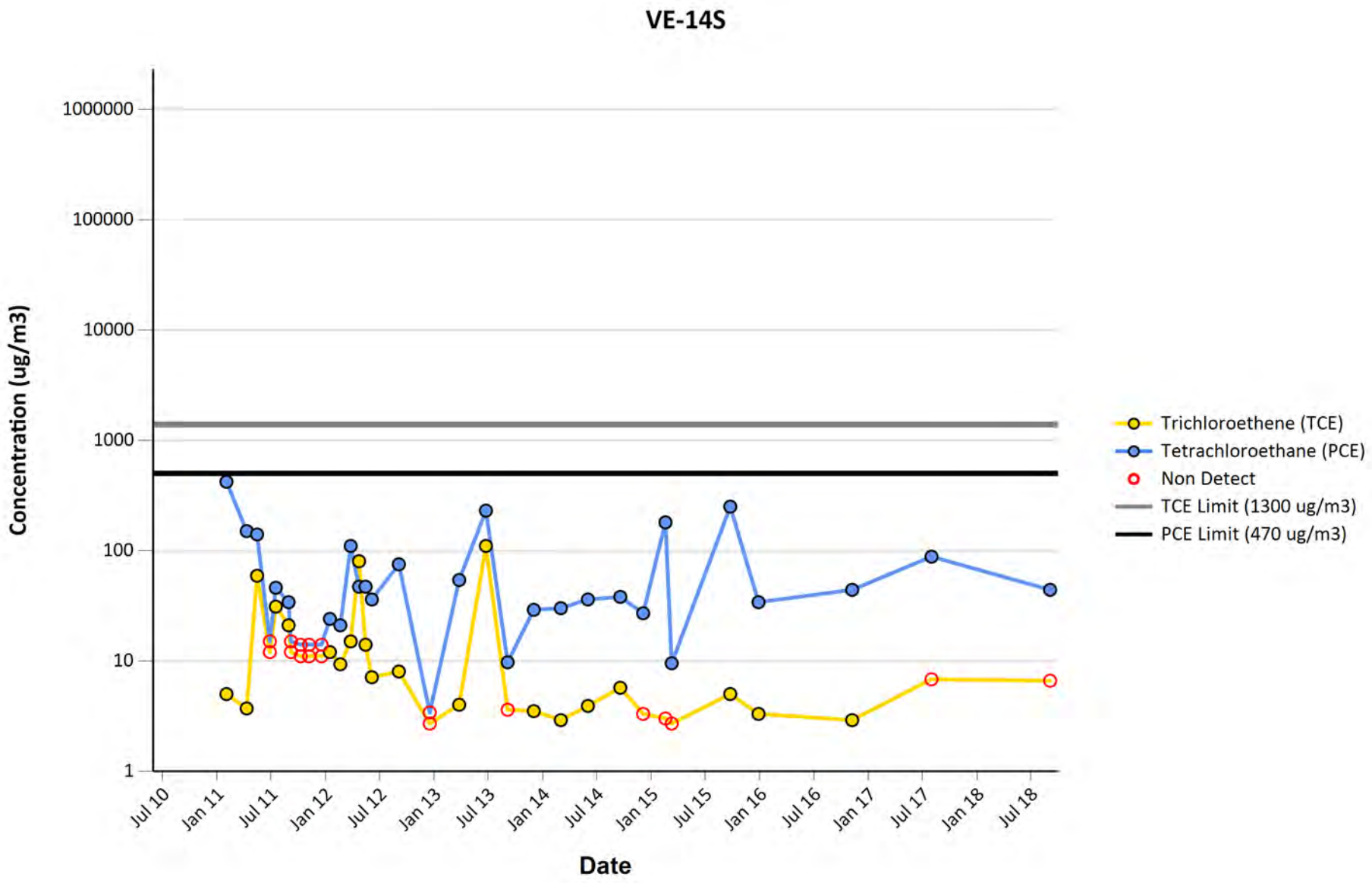
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-8
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



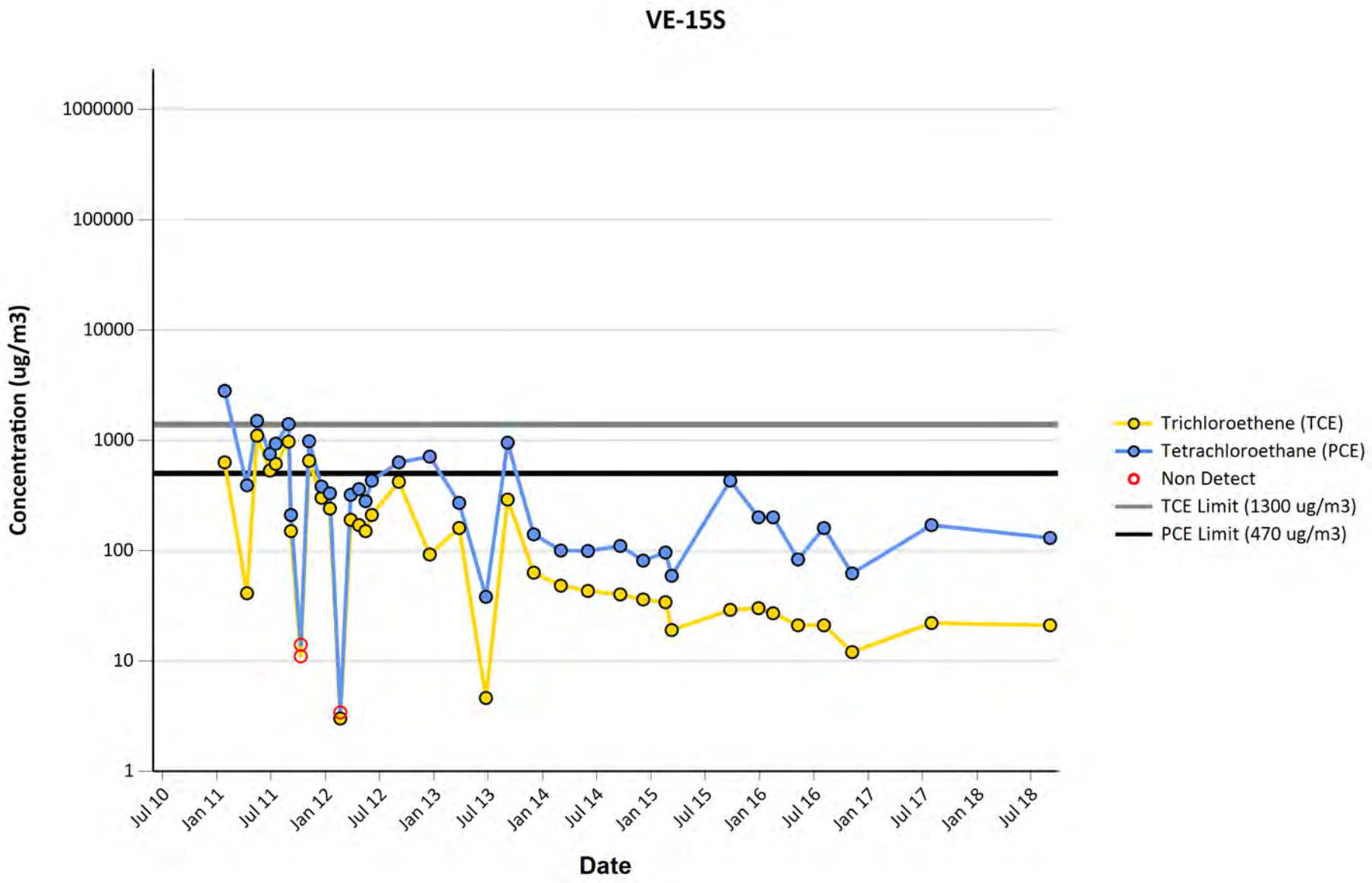
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-9
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



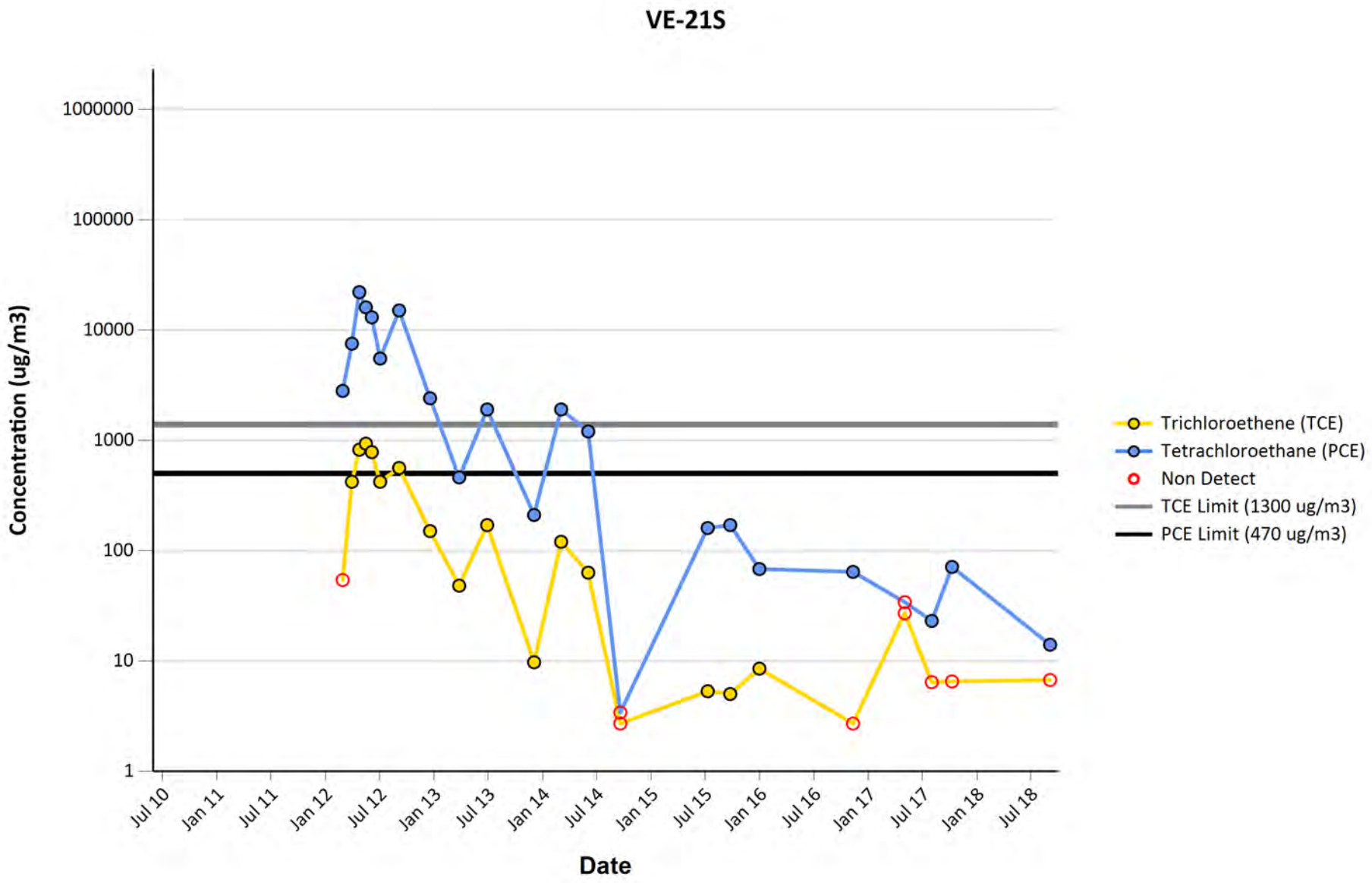
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-10
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



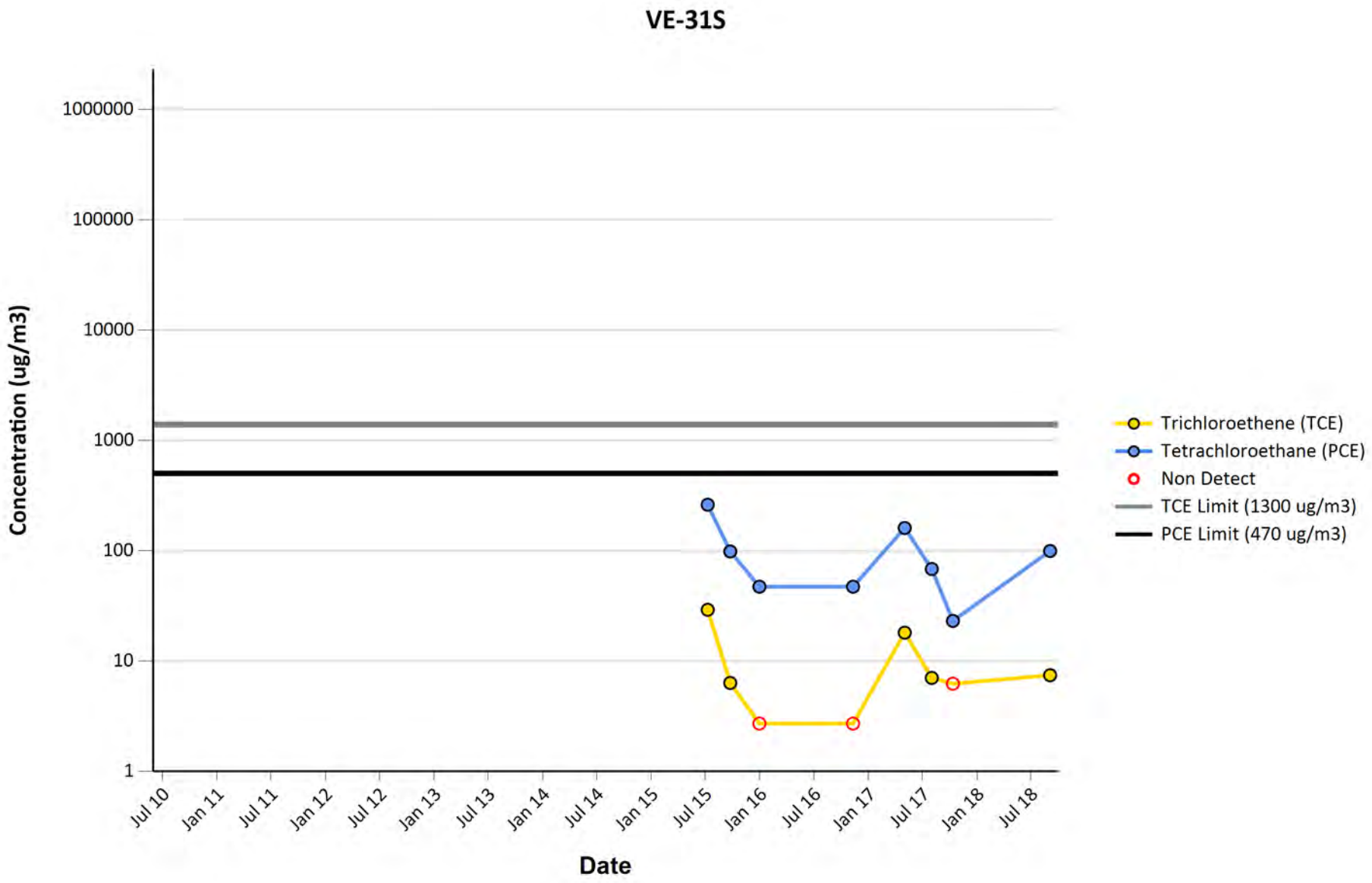
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-11
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



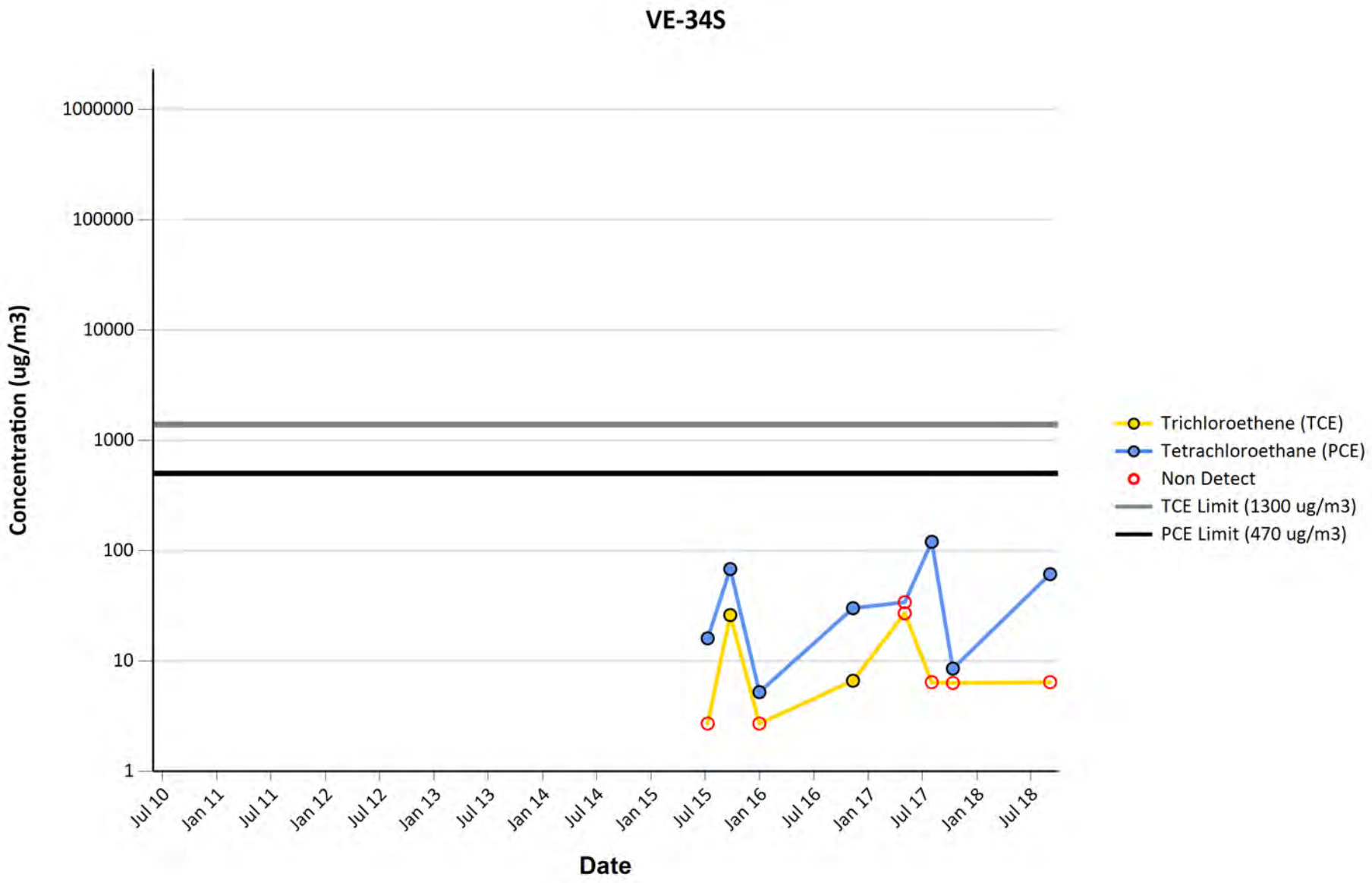
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-12
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



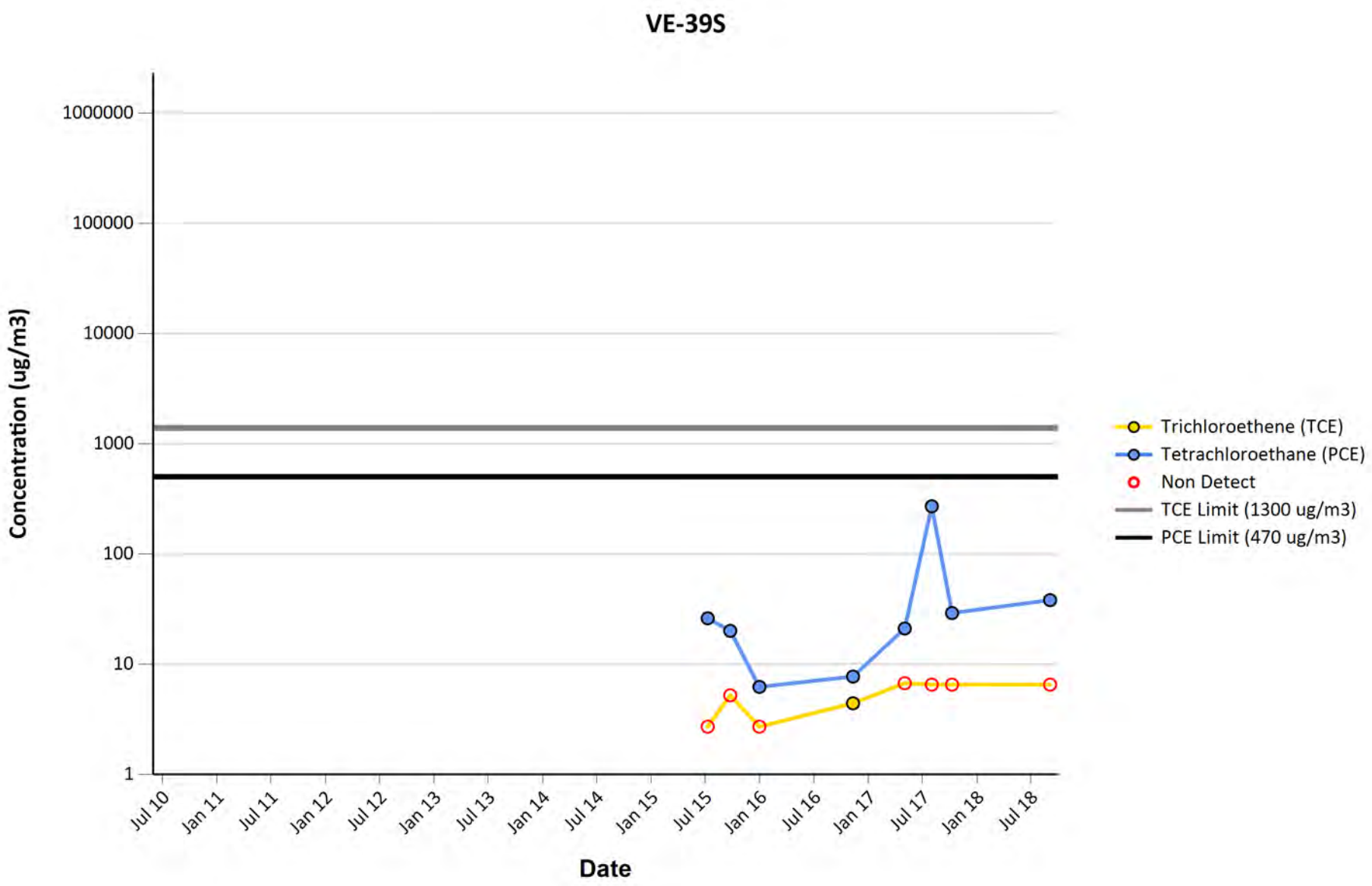
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-13
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



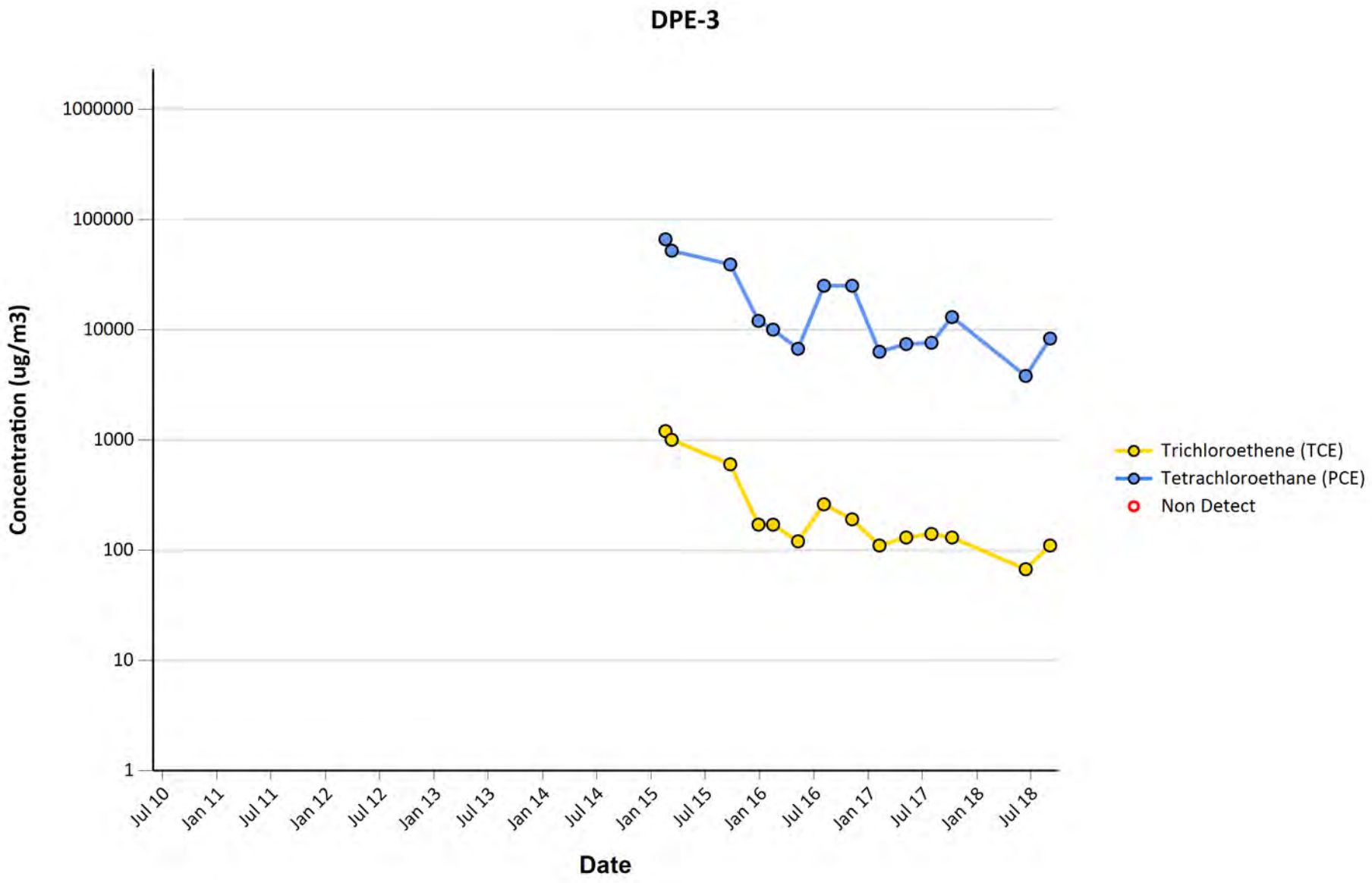
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-14
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



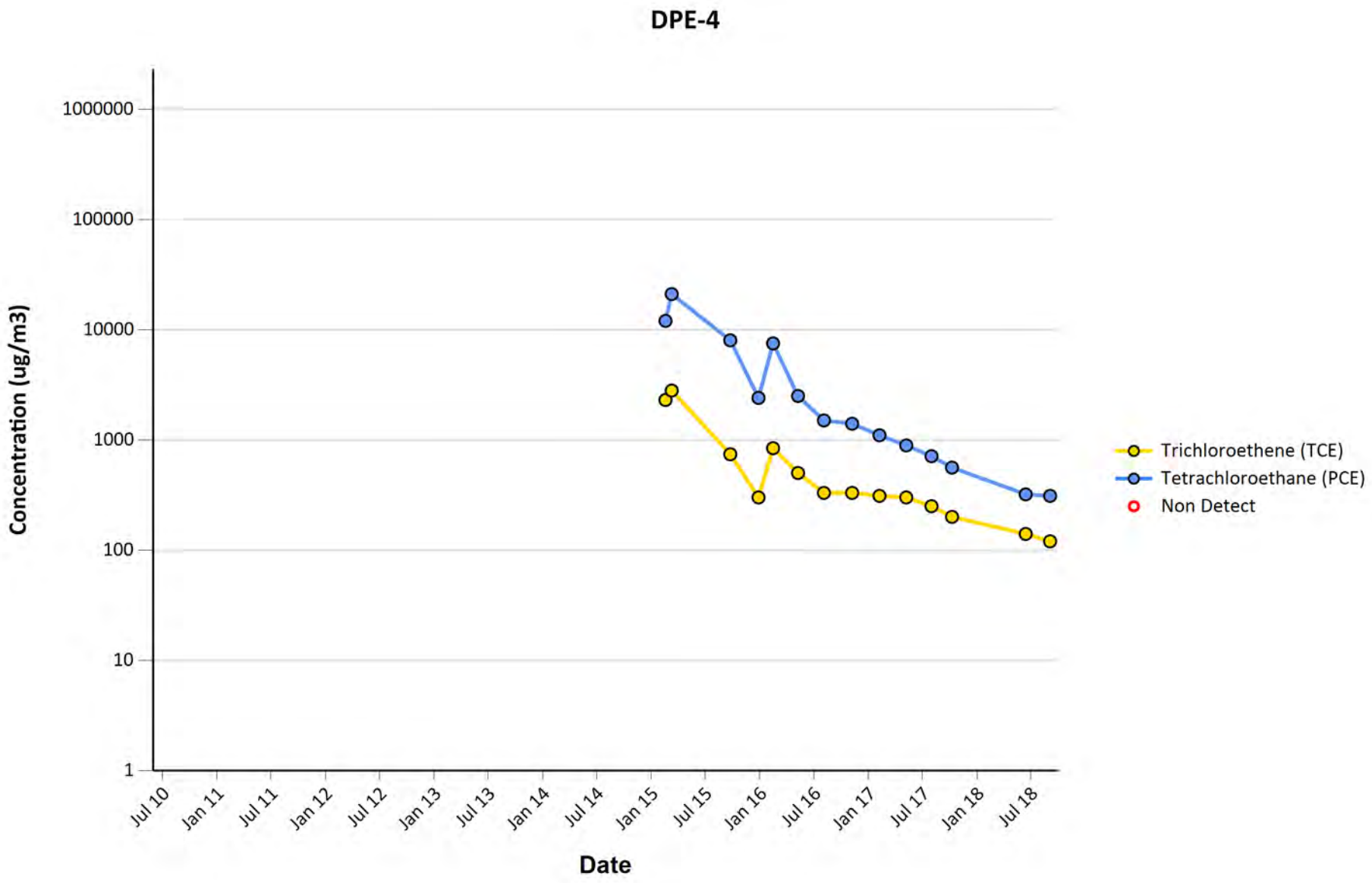
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-15
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



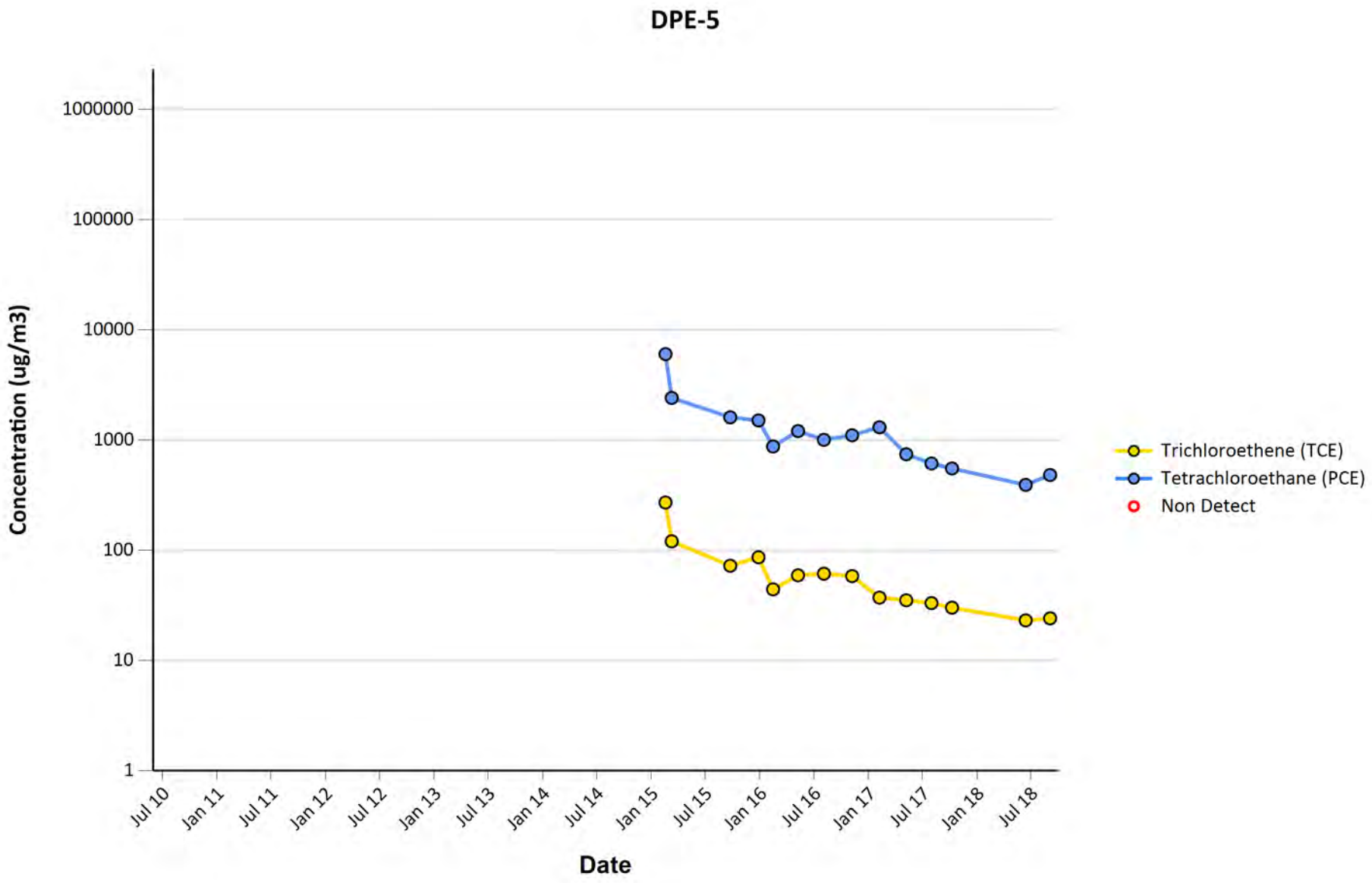
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-16
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



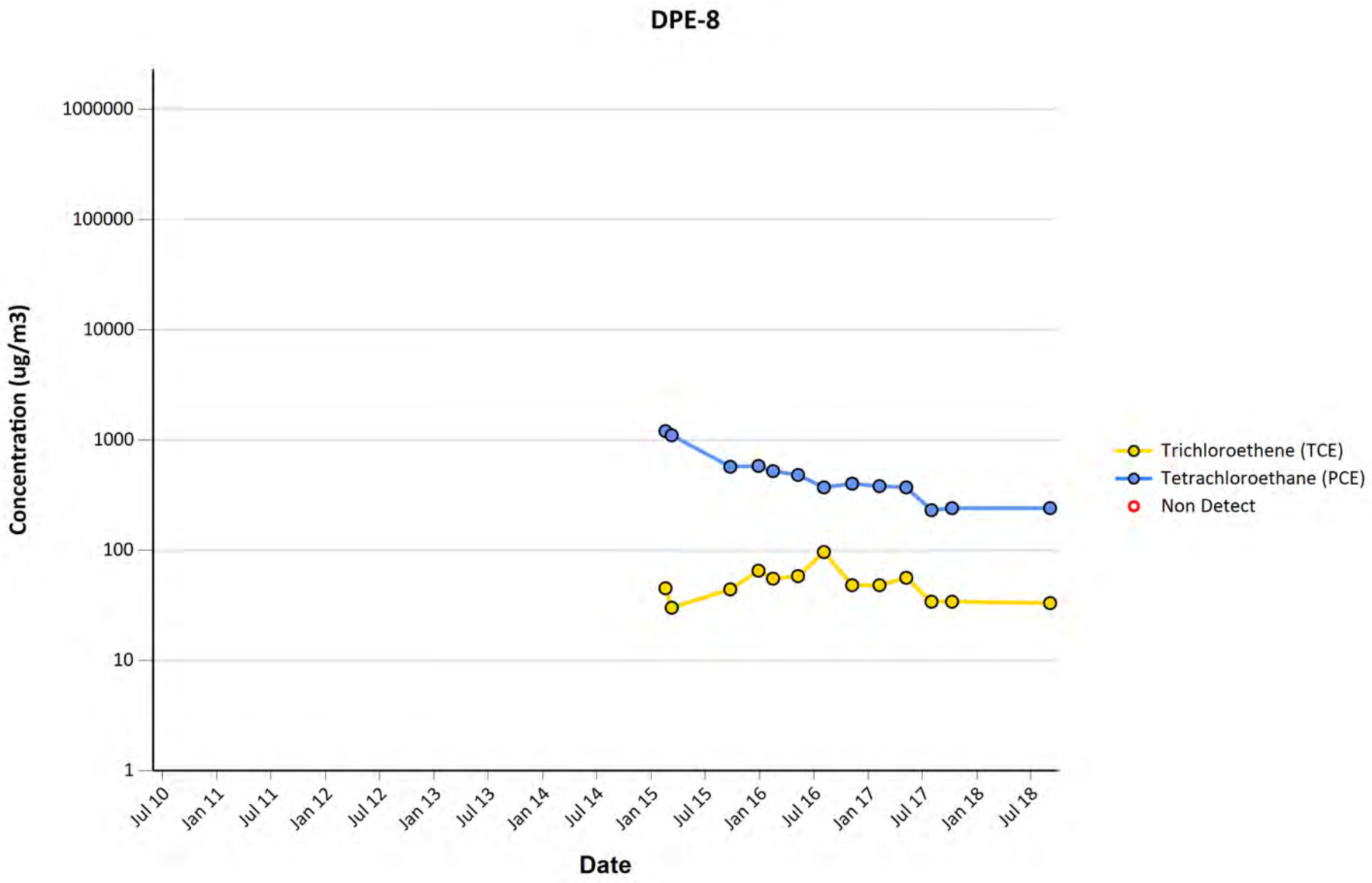
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-17
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



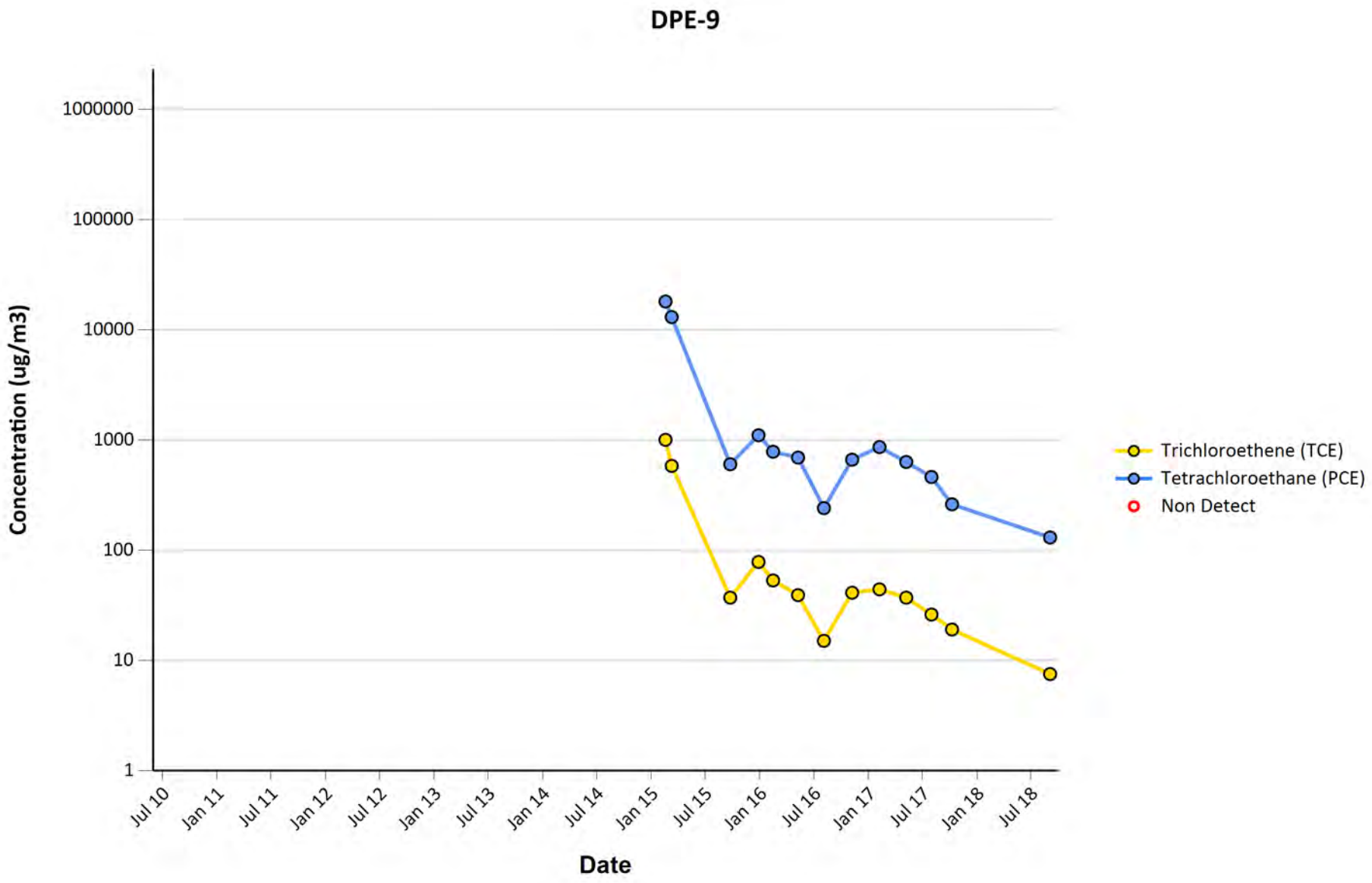
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-18
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



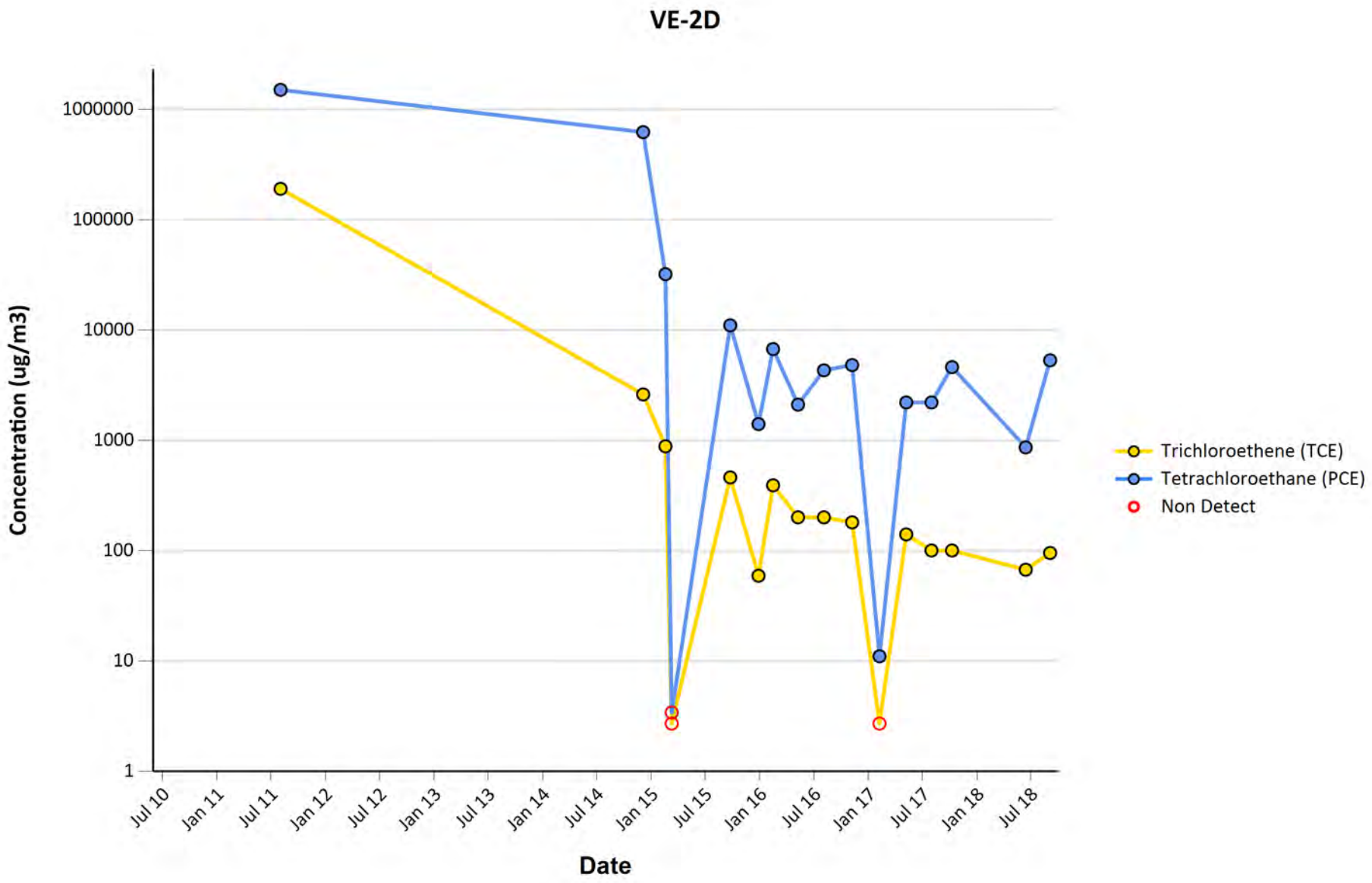
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-19
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



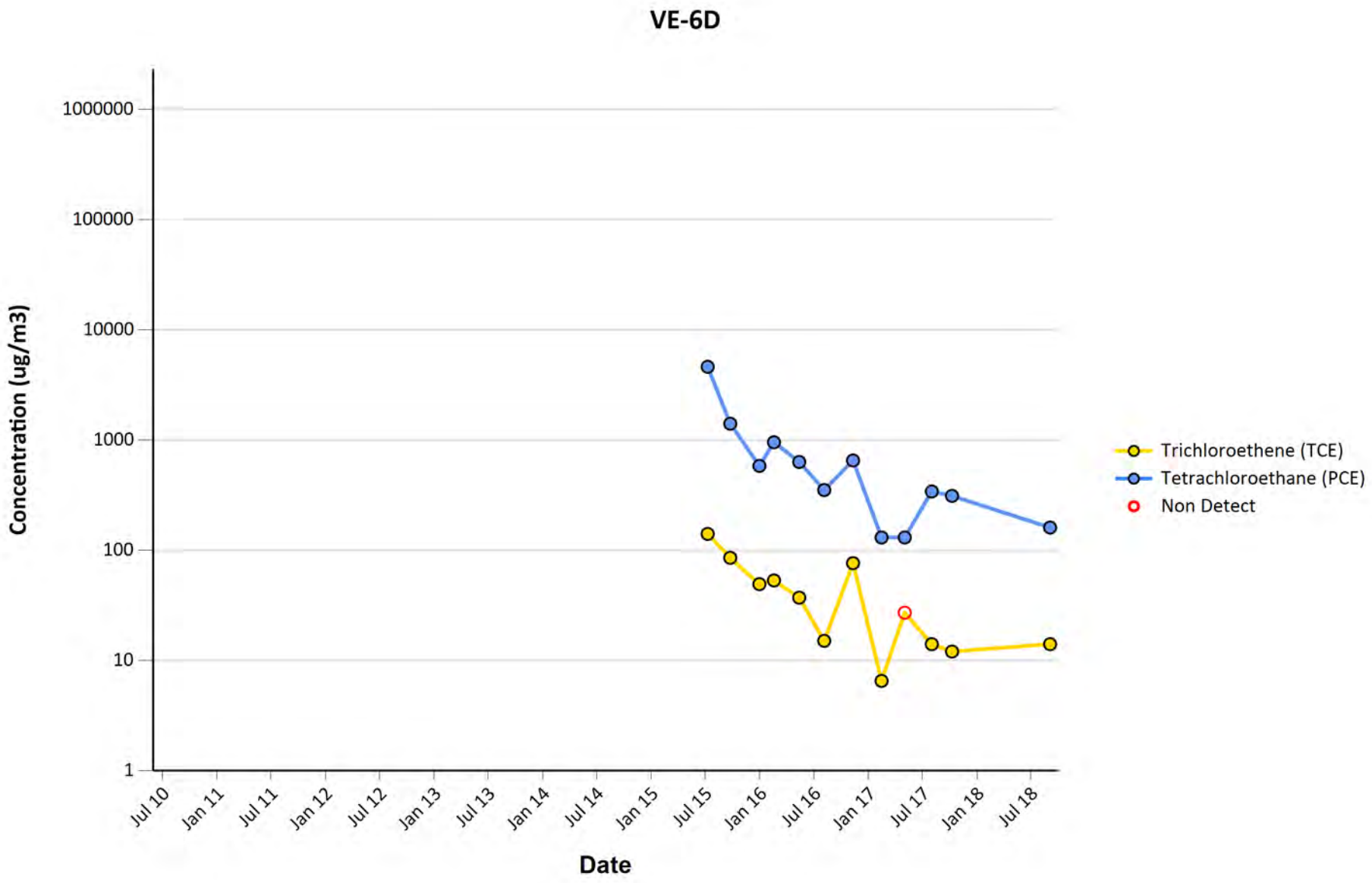
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-20
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



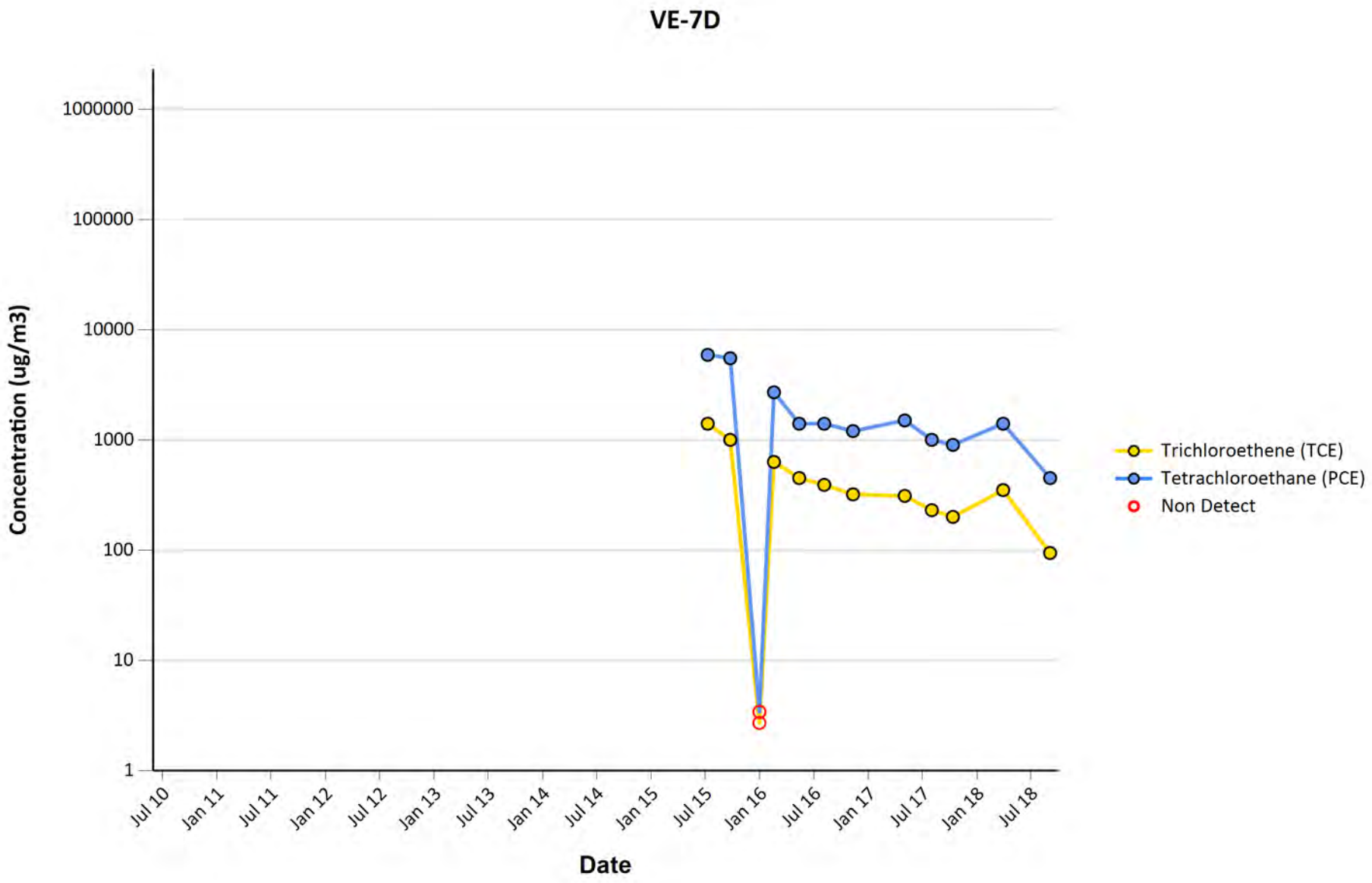
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-21
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



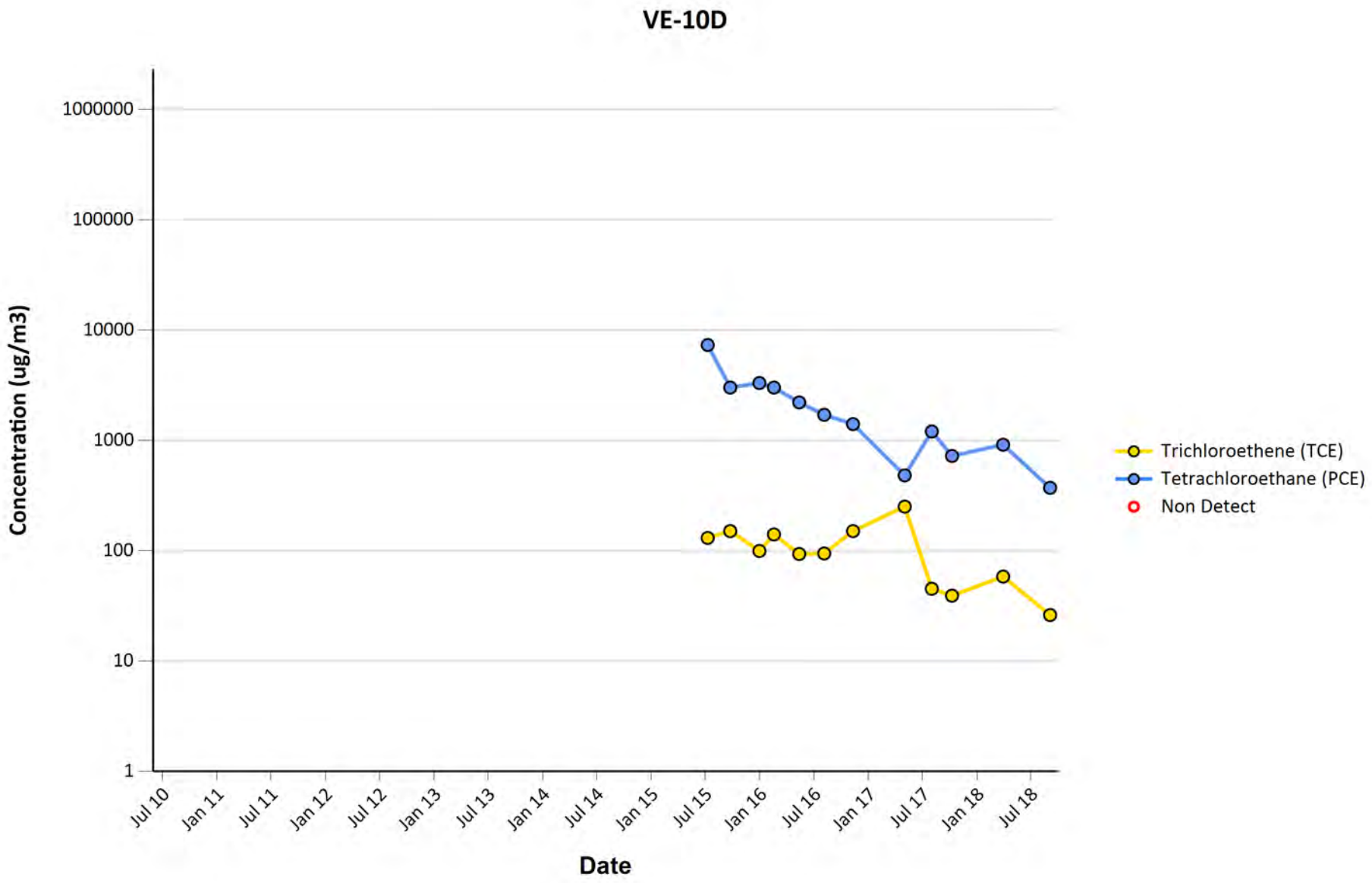
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-22
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



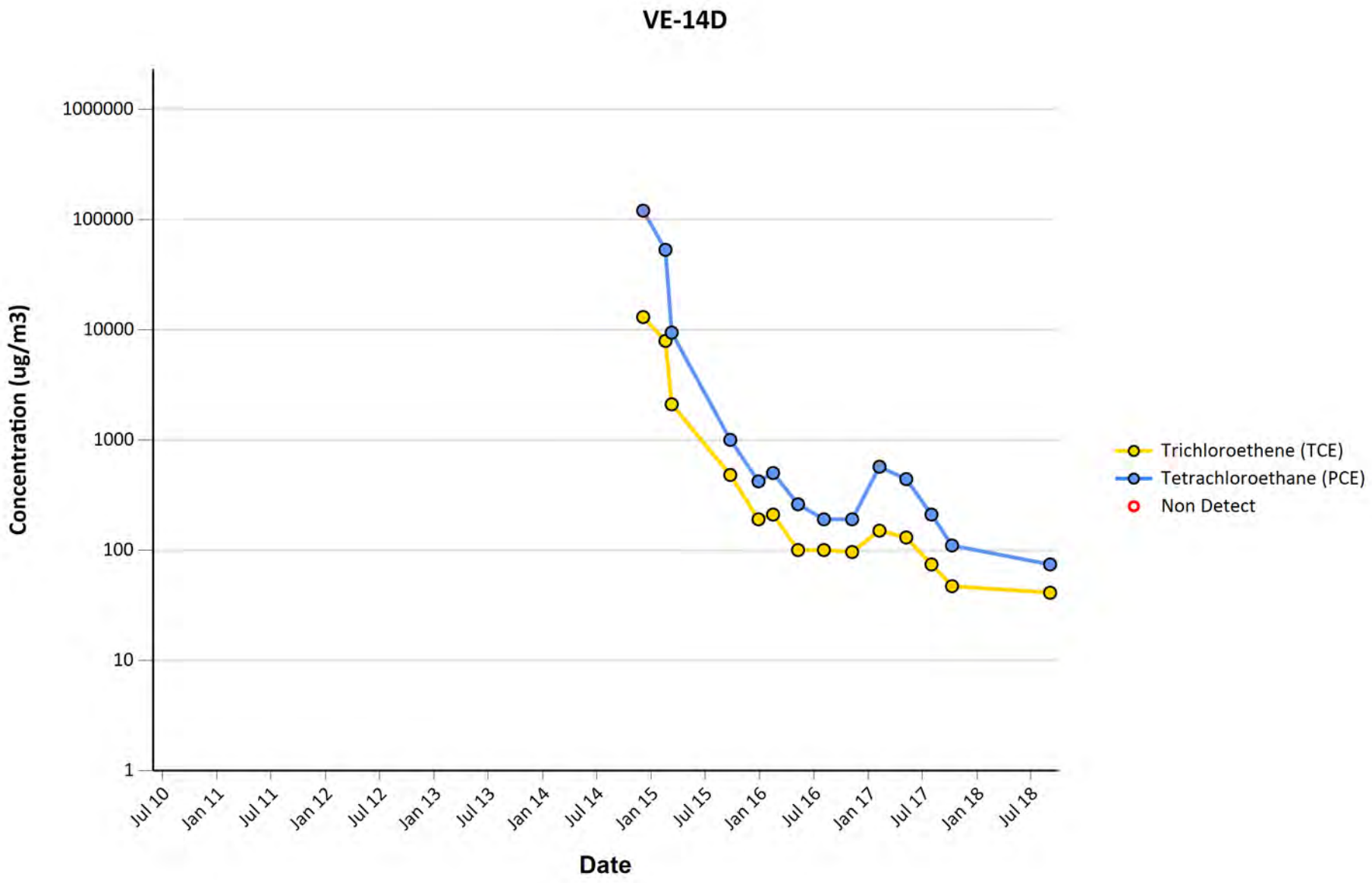
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-23
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment G, Figure G-24
Vapor Extraction Well PCE and TCE Concentrations - Time Series Charts
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

From: Jaime Dinello
To: Khalid Azhar; Trent Henderson
CC: Alesandra F. Reed; Jeffrey Bamer; Merry Coons; Kyle King
Date: 11/5/2018 11:26 AM
Subject: Omega: OU-1 SVE System Optimization Recommendations
Attachments: OU-1 SVE OPTIMIZATION INTERNAL NOTES 20181102.docx

Hi, Trent/Khalid -

CDM Smith has reviewed the 3Q18 and available 4Q18 data for the OU-1 SVE system. Based upon their review, please see below for the following, optimization recommendations. Feel free to communicate directly with Jeff/Alesandra, let us know if you have any questions, and let us know if you can implement this week.

CDM Smith recommendations are based on their assessment of soil vapor data collected during the 3rd and 4th quarter of 2018 which includes flow rate, PID, and vacuum monitoring data taken from vapor extraction wells, and vacuum monitoring data from VMPs. Recommendations for optimization are presented in the table below in rough order of priority along with the rationale for each.

Well ID	Initial Valve Position	Recommended Adjustment	Rationale
VE-8S	50%	100%	Current concentrations at this VEW and low nearby vacuums indicate an opportunity to affect the reduction of shallow VOC mass (RAO #1 and RAO #2).
VE-11S	25%	50%	Current concentrations at this VEW and low nearby vacuums indicate an opportunity to affect the reduction of shallow VOC mass (RAO #1 and RAO #2).
VE-5S	25%	25% or 50%	Current concentrations at this VEW indicate an opportunity to affect the reduction of shallow VOC mass (RAO #1 and RAO #2). Target an ultimate flowrate of 75 SCFM here, which may or may not require a valve adjustment.
VE-6D	1/6	2/6	Low nearby vacuums indicate a potential opportunity to maximize reduction of deep VOC mass (RAO #3).
VE-10S	75%	50%	PCE and TCE are steadily declining in the vicinity of these wells, which are well below the CULs. Allocating capacity to other areas with higher mass or insufficient vacuum gives the opportunity for higher mass removal there.
VE-12S			
DPE-4	100%	100% or 75%	PCE and TCE concentrations are low in this well and nearby VMPs. Allocating capacity to other areas with higher mass or insufficient vacuum gives the opportunity for higher mass removal there. Target an ultimate flowrate of 75 - 100 SCFM here, which may or may not require a valve adjustment.
DPE-5	50%	50% or 75%	Current concentrations at this VEW and nearby VMPs indicate an opportunity to maximize reduction of deep VOC mass (RAO #3). Target an ultimate flowrate of ~125 SCFM here, which may or may not require a valve adjustment.
DPE-8	1/6	1/6 or 2/6	Current concentrations at this VEW and nearby VMPs indicate an opportunity to maximize reduction of deep VOC mass (RAO #3). Target an ultimate flowrate of 75 - 100 SCFM here, which may or may not require a valve adjustment.

Attachment l

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Vapor Monitoring Probe

OU-1 Boundary

Former Omega Chemical Property Boundary

Building

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/22/2018

Attachment H, Figure H-1
Other Soil Gas Locations
OU-1 Full Scale On-Site Soil Remedy,
Omega Chemical Superfund Site

Attachment H, Table H-1
Vapor Monitoring Probe Summary of Other Data Collected This Quarter
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Sample Type	Sample Date	PCE	TCE	VC	11DCA	12DCA	CF	MeC	BEN
Shallow Depths (between 0 and 30 feet below ground surface)										
VMP-23-30	ORIG	9/17/2018	340 J	9.1	3.2 U	5 U	5 U	6 U	43 U	4 U
VMP-25-30	ORIG	9/17/2018	140 J	6.6 U	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VMP-39-6	ORIG	9/17/2018	2900 J	210	2.8 U	4.4 U	4.4 U	5.3 U	38 U	4.2
VMP-39-12	ORIG	9/17/2018	440 J	20	2.9 U	4.6 U	4.6 U	5.5 U	39 U	3.6 U
VMP-39-24	ORIG	9/17/2018	180 J	6.2	2.9 U	4.6 U	4.6 U	5.5 U	39 U	3.6 U
VMP-40-6	ORIG	9/17/2018	260 J	25	3.1 U	5 U	5 U	6 U	42 U	3.9 U
VMP-40-12	ORIG	9/17/2018	220 J	9.8	3.2 U	5.1 U	5.1 U	6.1 U	44 U	4 U
VMP-40-24	ORIG	9/17/2018	160 J	9.8	3.1 U	5 U	5 U	6 U	43 U	3.9 U
VMP-41-6	ORIG	9/17/2018	130 J	6.7 U	3.2 U	5.1 U	5.1 U	6.1 U	44 U	14
VMP-41-12	ORIG	9/17/2018	110 J	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VMP-41-24	ORIG	9/17/2018	82 J	6.3 U	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-84-6	ORIG	9/17/2018	1400 J	500	3 U	4.7 U	4.7 U	5.7 U	40 U	3.7 U
VMP-84-12	ORIG	9/17/2018	860 J	130	3.1 U	4.8 U	4.8 U	5.8 U	42 U	3.8 U
VMP-84-24	ORIG	9/17/2018	1300 J	360	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
Deep Depths (greater than 30 feet below ground surface)										
VMP-39-55	ORIG	9/17/2018	3900 J	1100	60 U	95 U	95 U	110 U	810 U	75 U
VMP-40-55	ORIG	9/17/2018	170 J	11	4.1	5 U	5 U	6 U	43 U	4 U
VMP-41-55	ORIG	9/17/2018	81 J	6.2 U	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VMP-84-40	ORIG	9/17/2018	810 J	100	3 U	4.8 U	4.8 U	5.8 U	41 U	3.8 U
VMP-84-50	ORIG	9/17/2018	570 J	52	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U
VMP-84-60	ORIG	9/17/2018	410 J	42	2.9 U	4.6 U	4.6 U	5.6 U	40 U	3.6 U

Notes:

All concentrations in units of ug/m3

U = Not detected above reporting limit listed

J = results are qualified as estimated

The last two digits of each Location indicate the depth of the sample in feet

ORIG = original sample

PCE = Tetrachloroethene

TCE - Trichloroethene

VC - Vinyl Chloride

11DCA - 1,1-Dichloroethane

12DCA - 1,2-Dichloroethane

CF - Chloroform

MeC - Methylene Chloride

BEN - Benzene

Attachment H, Table H-2
Other Vacuum Data Collected This Quarter
OU-1 Full Scale On-Site Soil Remedy, Omega Chemical Superfund Site
Third Quarter 2018

Location	Monitoring Point Depth (feet bgs)	Vapor Extraction Well ROI[1]	Measurement Date	Vacuum[2,3] (in H_2O, gauge)
VMP-23	30		9/17/2018	-0.03
VMP-25	30		9/17/2018	0.00
VMP-39	6		9/17/2018	-0.01
	12		9/17/2018	0.00
	24		9/17/2018	0.00
	55		9/17/2018	0.00
VMP-40	6		9/17/2018	0.00
	12		9/17/2018	-0.01
	24		9/17/2018	-0.34
	55		9/17/2018	-0.10
	70		9/17/2018	-0.06
VMP-41	6		9/17/2018	0.00
	12		9/17/2018	0.00
	24		9/17/2018	0.00
	55		9/17/2018	0.00
VMP-84	6		9/17/2018	0.00
	12		9/17/2018	0.00
	24		9/17/2018	0.00
	40		9/17/2018	0.00
	50		9/17/2018	0.00
	60		9/17/2018	0.00

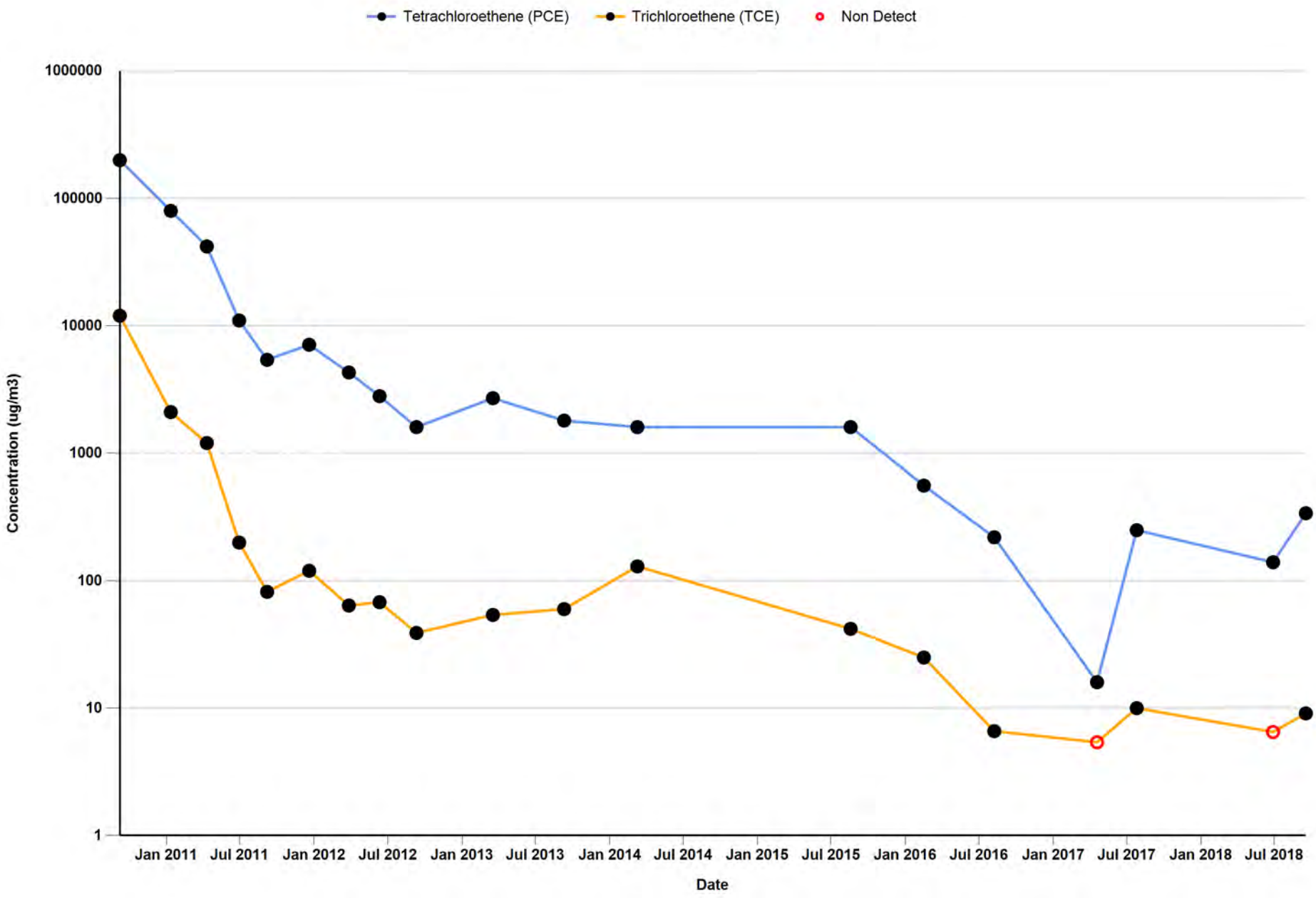
Notes:

bgs = below ground surface -- = not measured,VMP was inaccessible

1. ROI = Estimated design radius of influence by the vapor extraction well (VEW) listed. If no VEW is listed, then the VMP is not within the design ROI of a VEW.

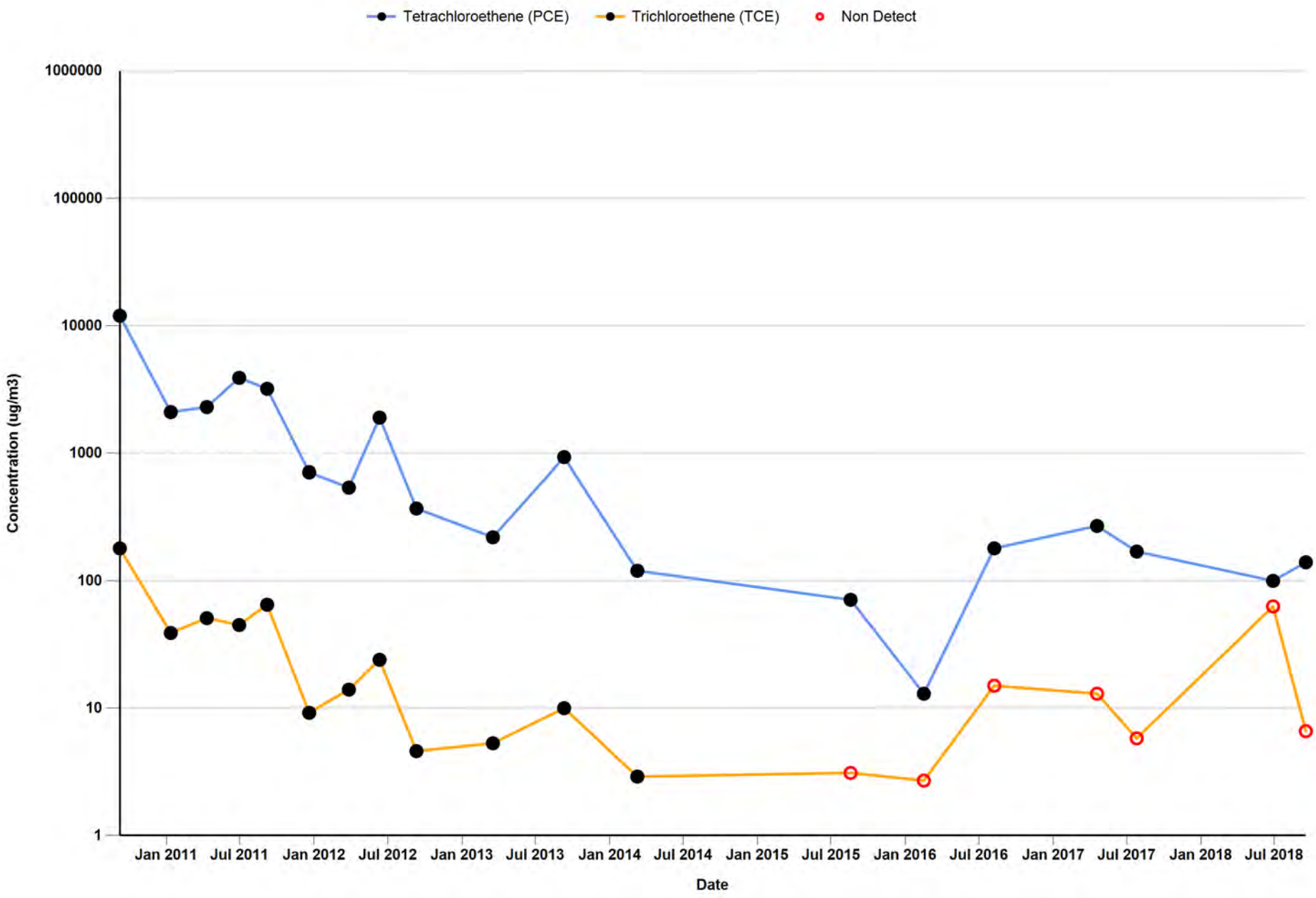
2. in H2O, gauge = inches of water pressure relative to atmospheric pressure. A negative gauge pressure is considered vacuum.

Attachment H, Figure H-2
Other Soil Gas PCE and TCE Concentrations
VMP-23 at 30 ft-bgs
Omega Chemical Superfund Site



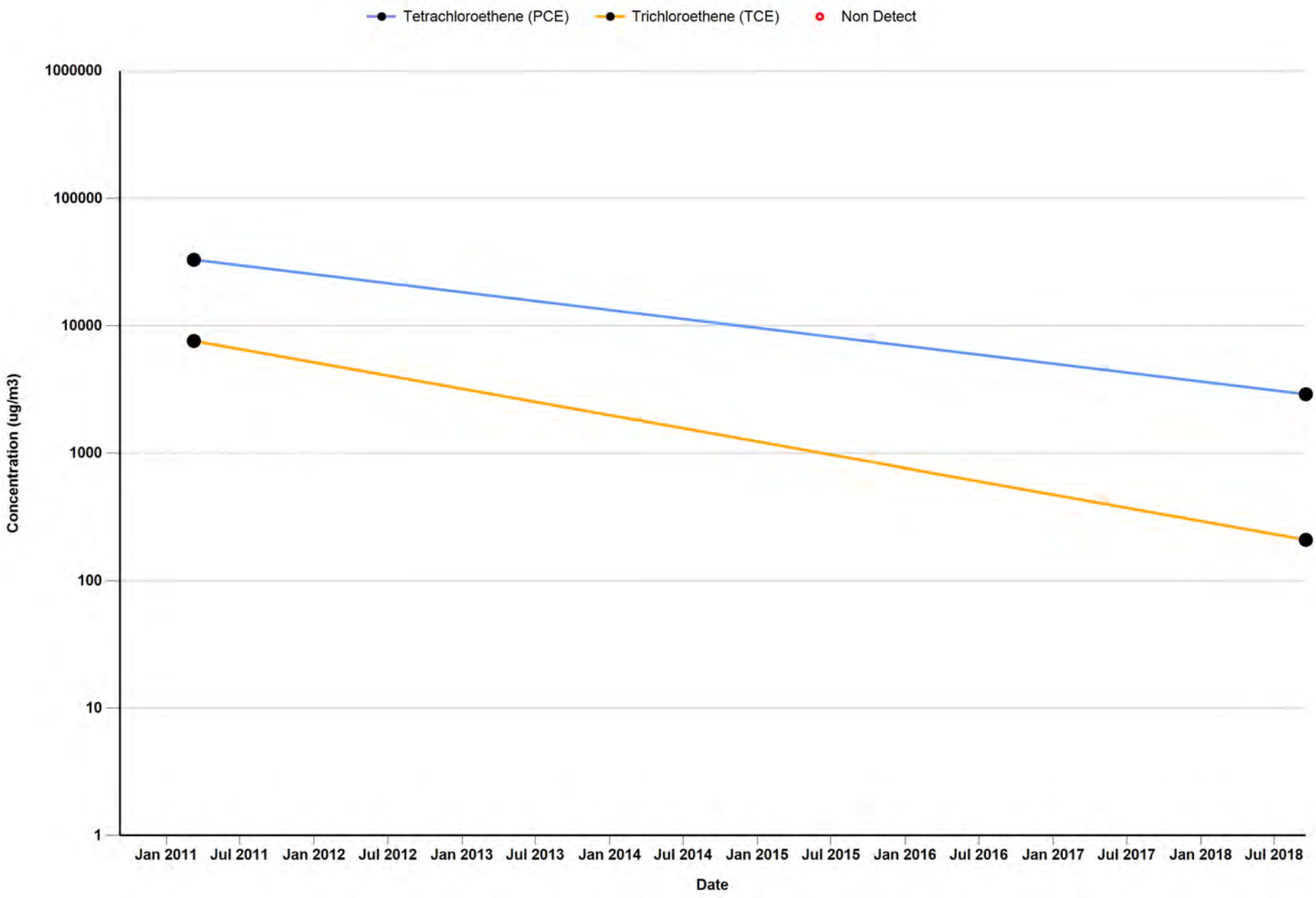
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-3
Other Soil Gas PCE and TCE Concentrations
VMP-25 at 30 ft-bgs
Omega Chemical Superfund Site



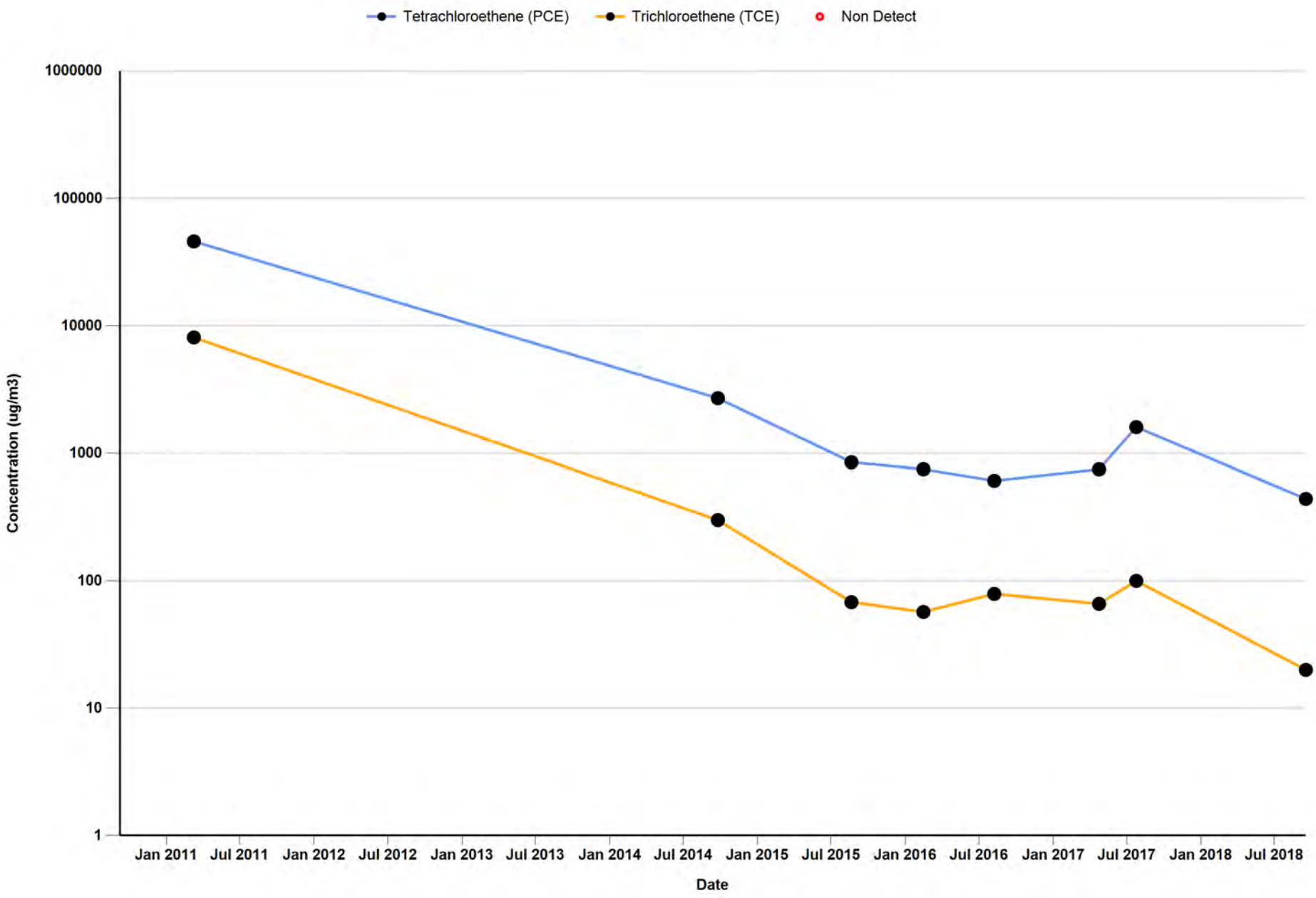
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-4
Other Soil Gas PCE and TCE Concentrations
VMP-39 at 6 ft-bgs
Omega Chemical Superfund Site



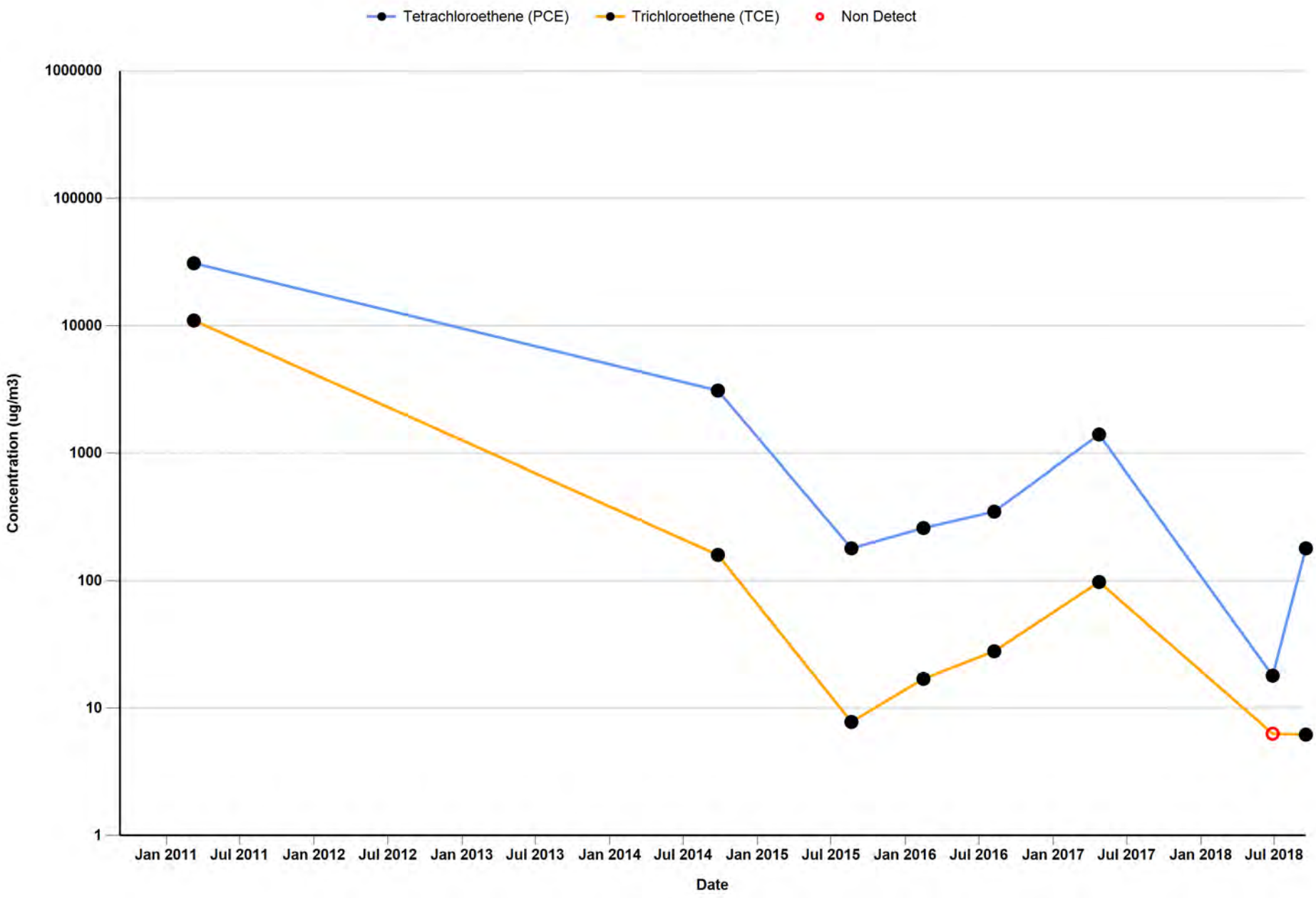
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-5
Other Soil Gas PCE and TCE Concentrations
VMP-39 at 12 ft-bgs
Omega Chemical Superfund Site



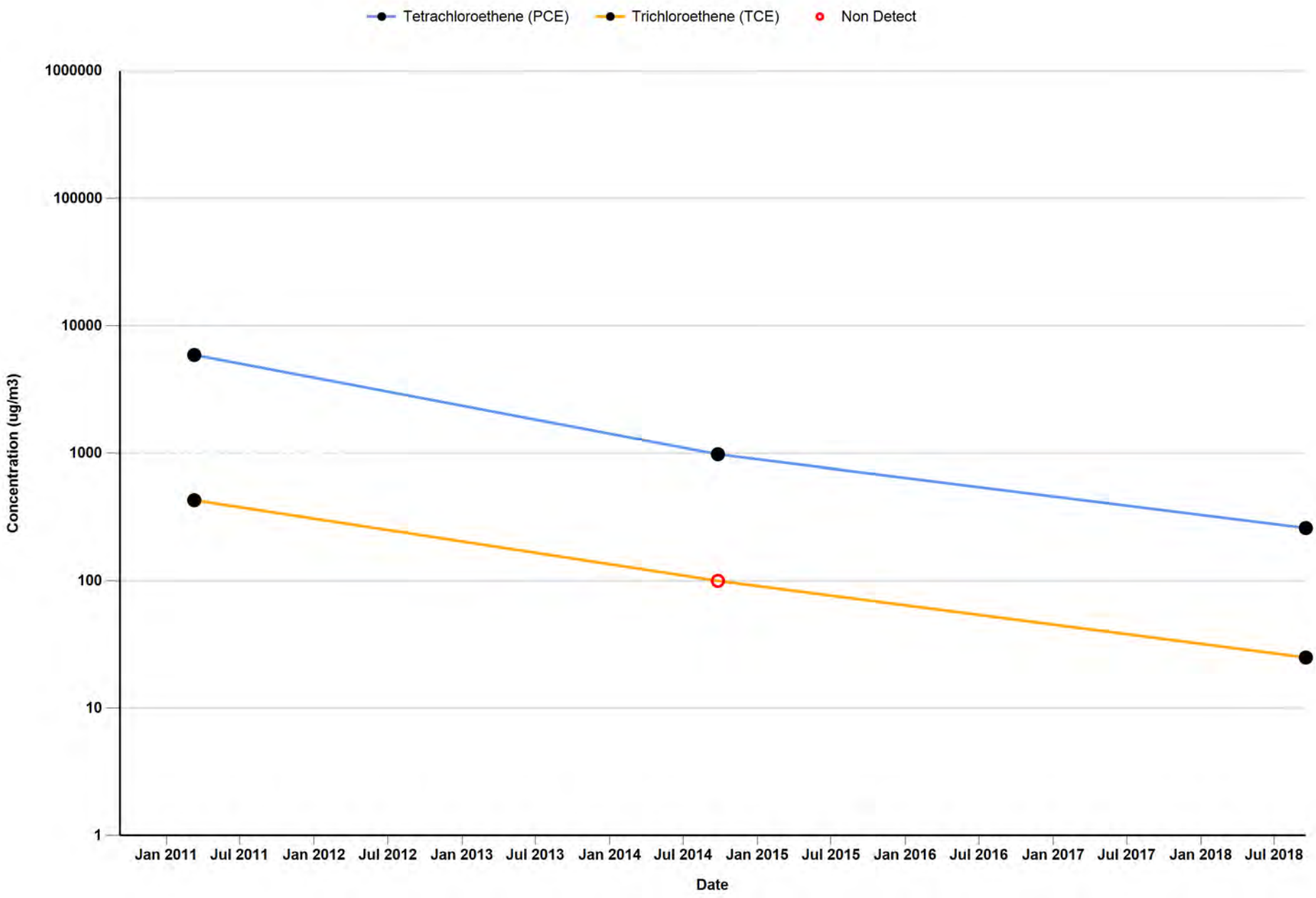
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-6
Other Soil Gas PCE and TCE Concentrations
VMP-39 at 24 ft-bgs
Omega Chemical Superfund Site



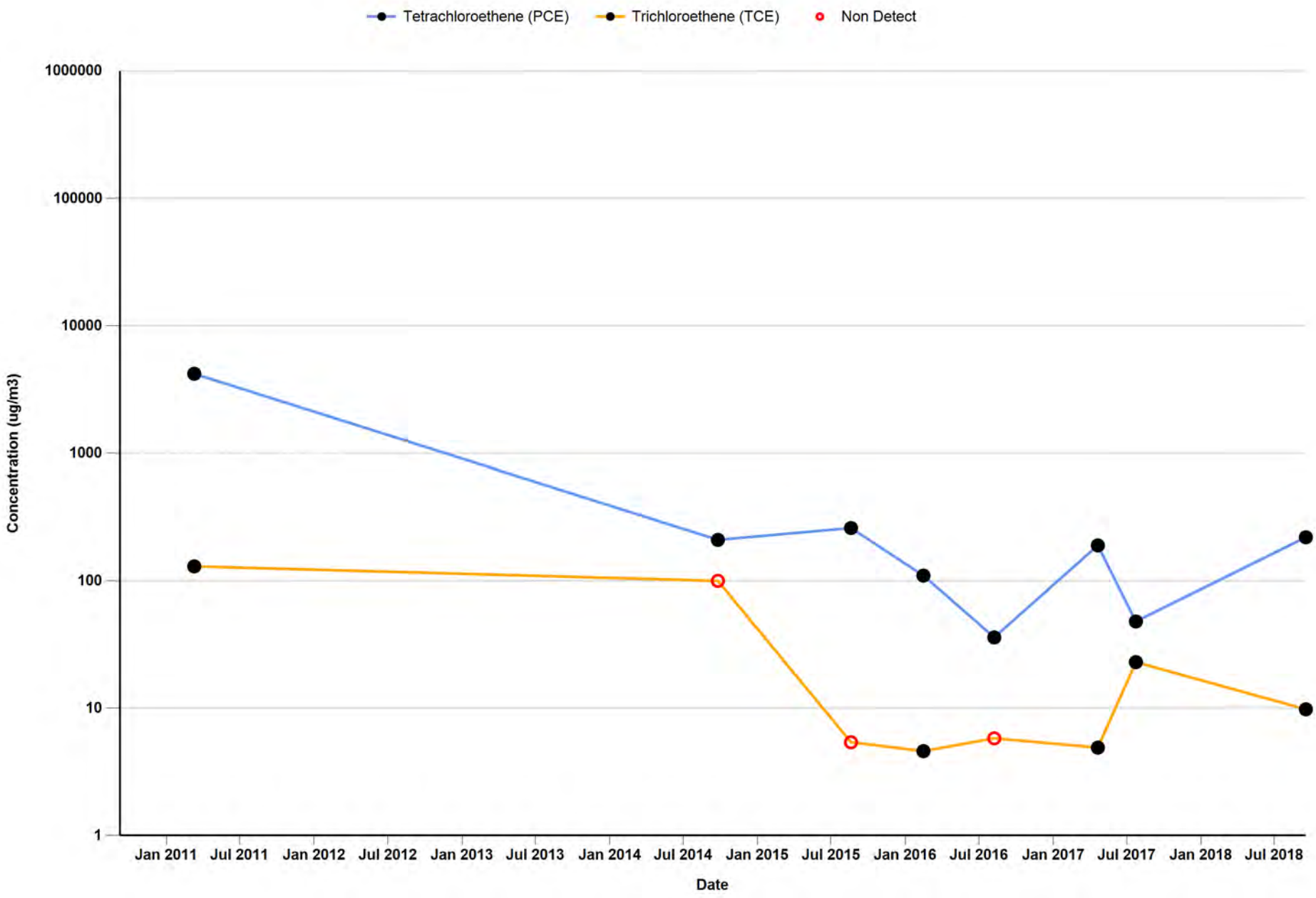
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-7
Other Soil Gas PCE and TCE Concentrations
VMP-40 at 6 ft-bgs
Omega Chemical Superfund Site



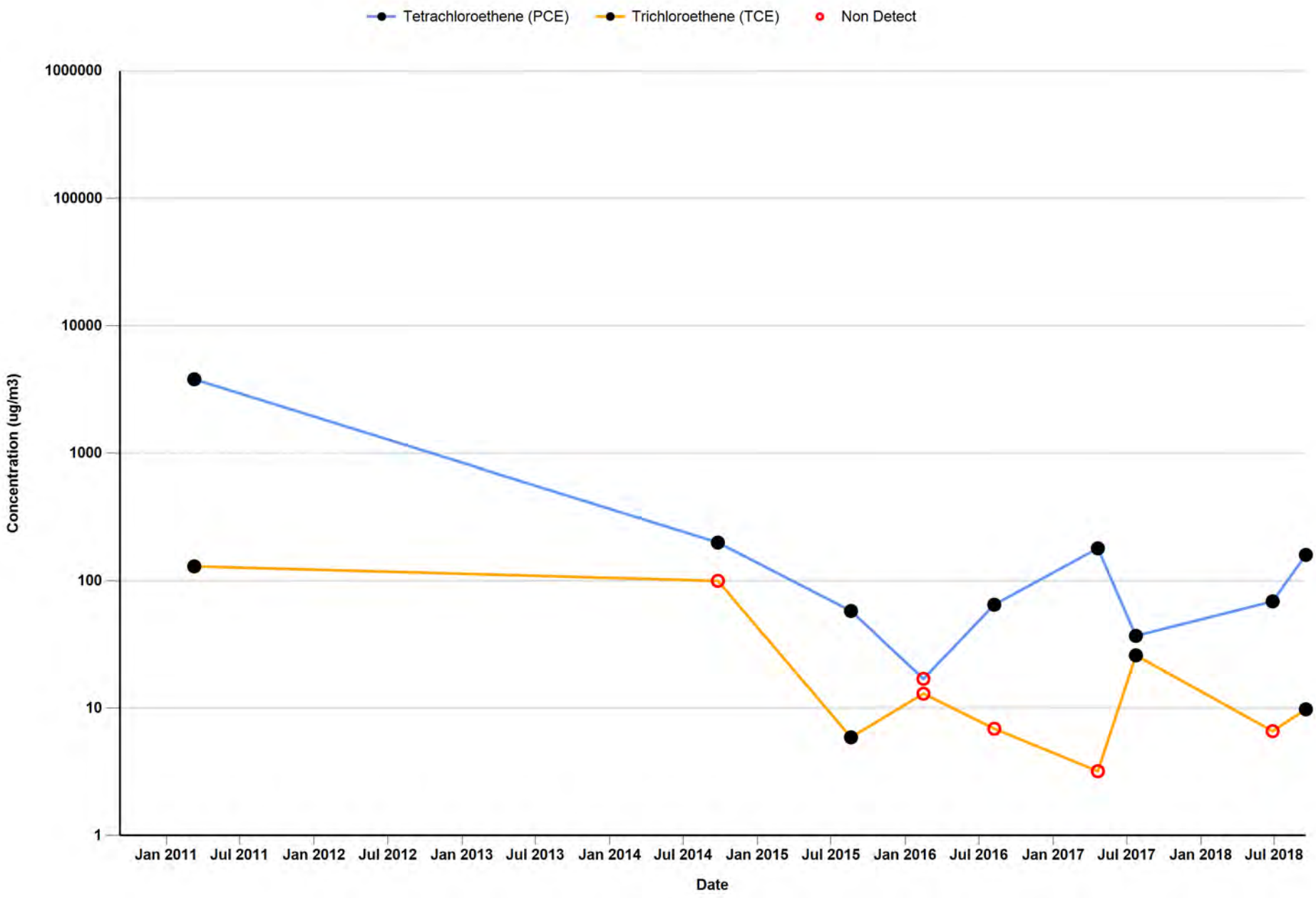
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-8
Other Soil Gas PCE and TCE Concentrations
VMP-40 at 12 ft-bgs
Omega Chemical Superfund Site



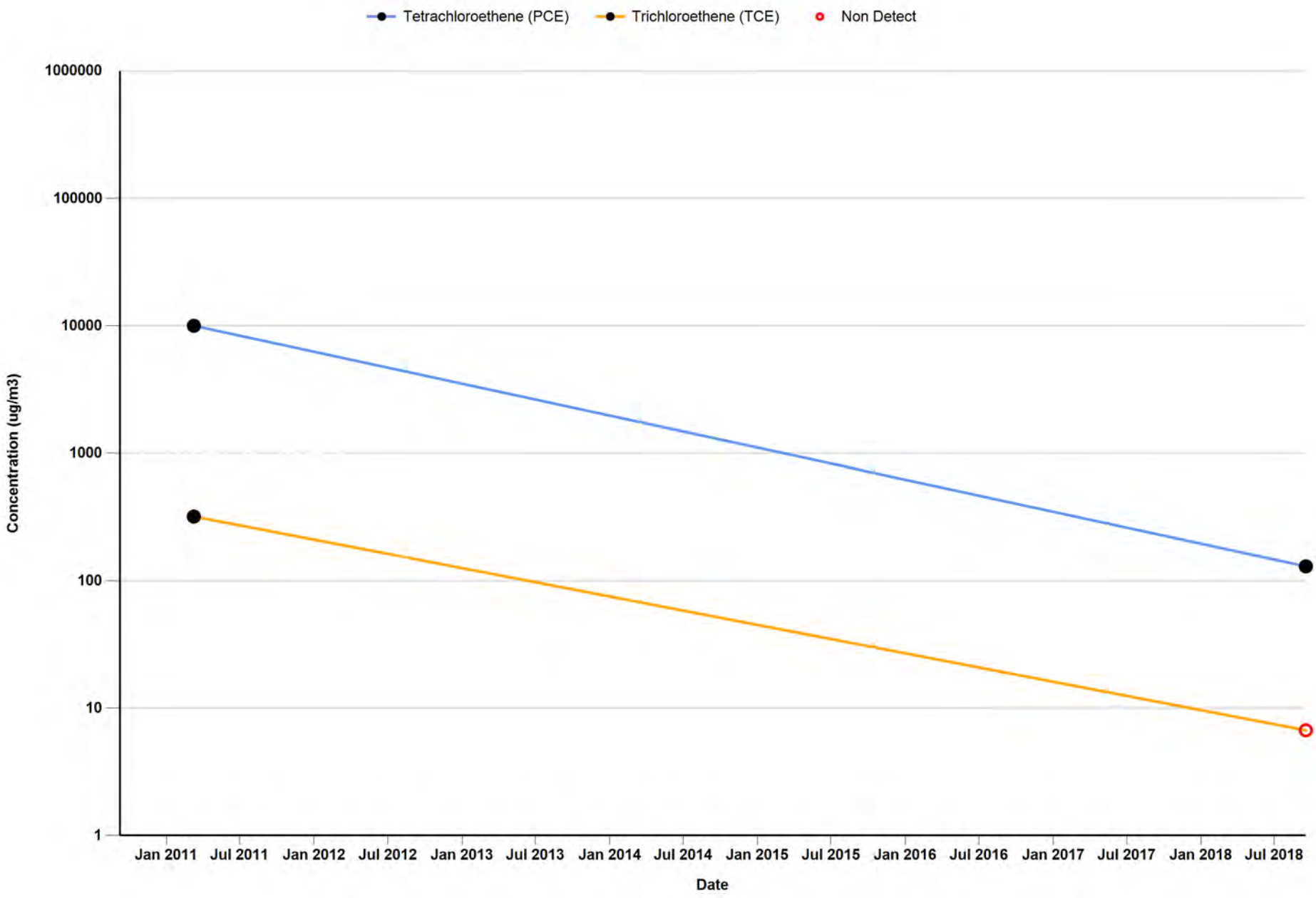
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-9
Other Soil Gas PCE and TCE Concentrations
VMP-40 at 24 ft-bgs
Omega Chemical Superfund Site



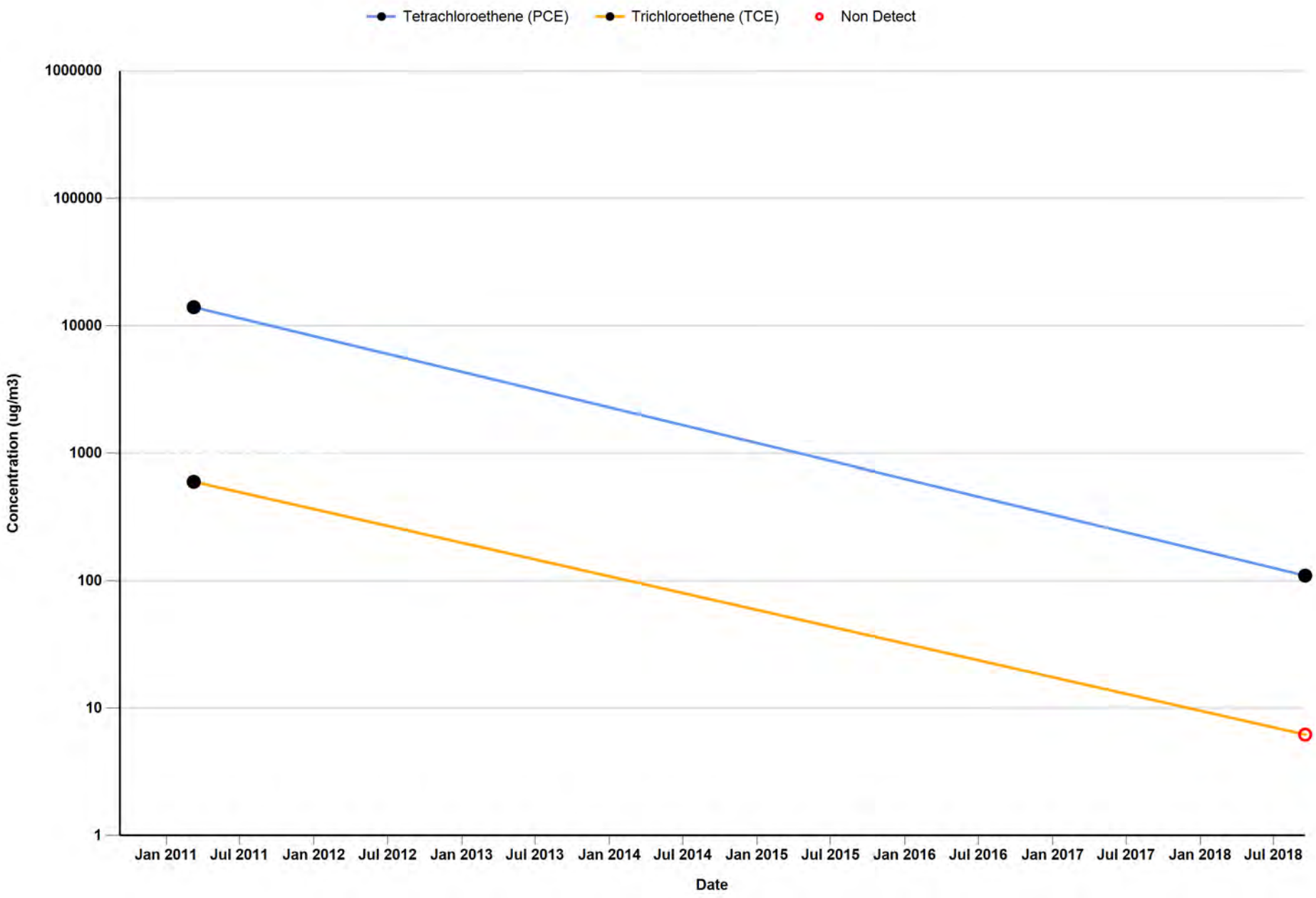
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-10
Other Soil Gas PCE and TCE Concentrations
VMP-41 at 6 ft-bgs
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-11
Other Soil Gas PCE and TCE Concentrations
VMP-41 at 12 ft-bgs
Omega Chemical Superfund Site

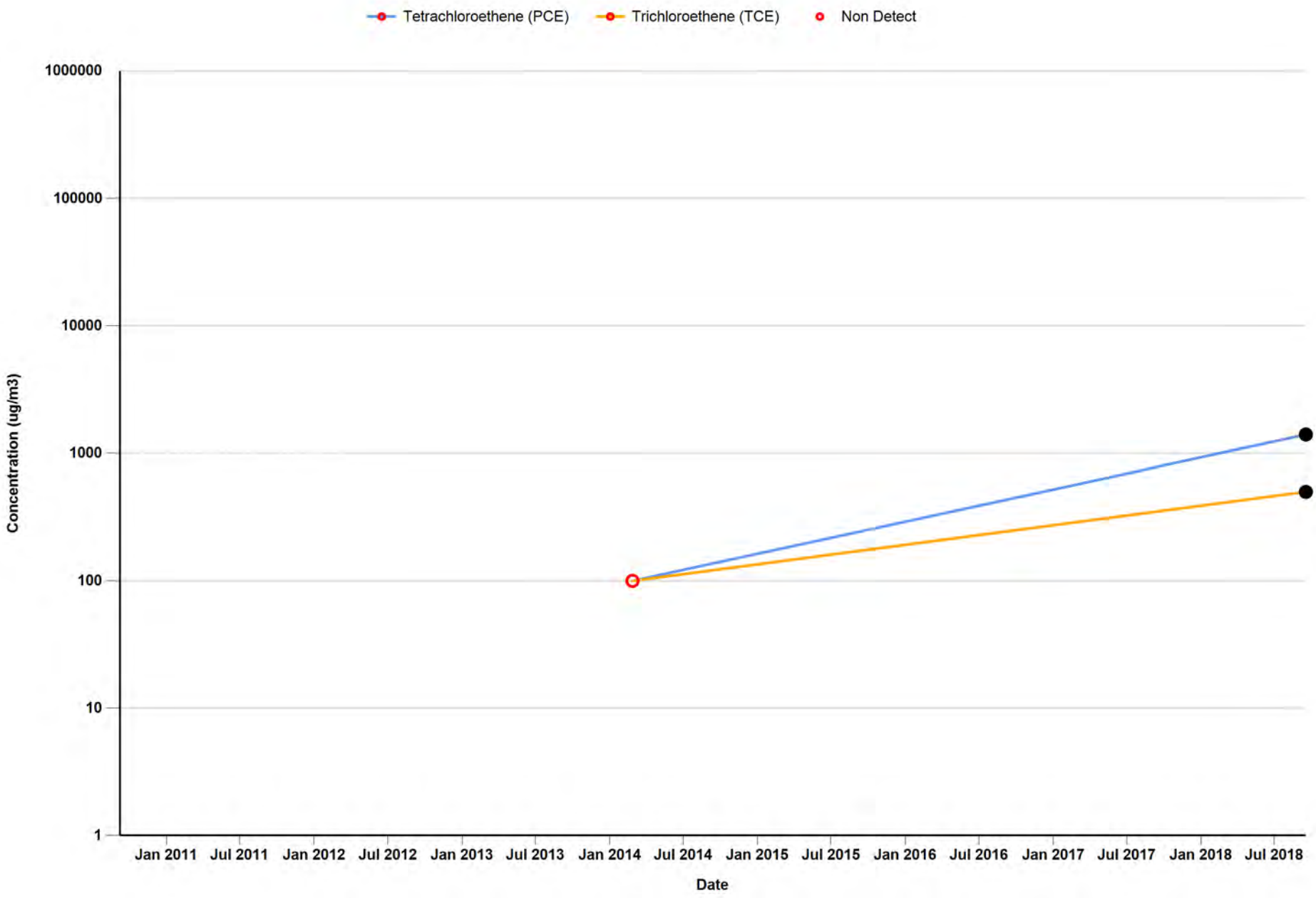


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-12
Other Soil Gas PCE and TCE Concentrations
VMP-41 at 24 ft-bgs
Omega Chemical Superfund Site

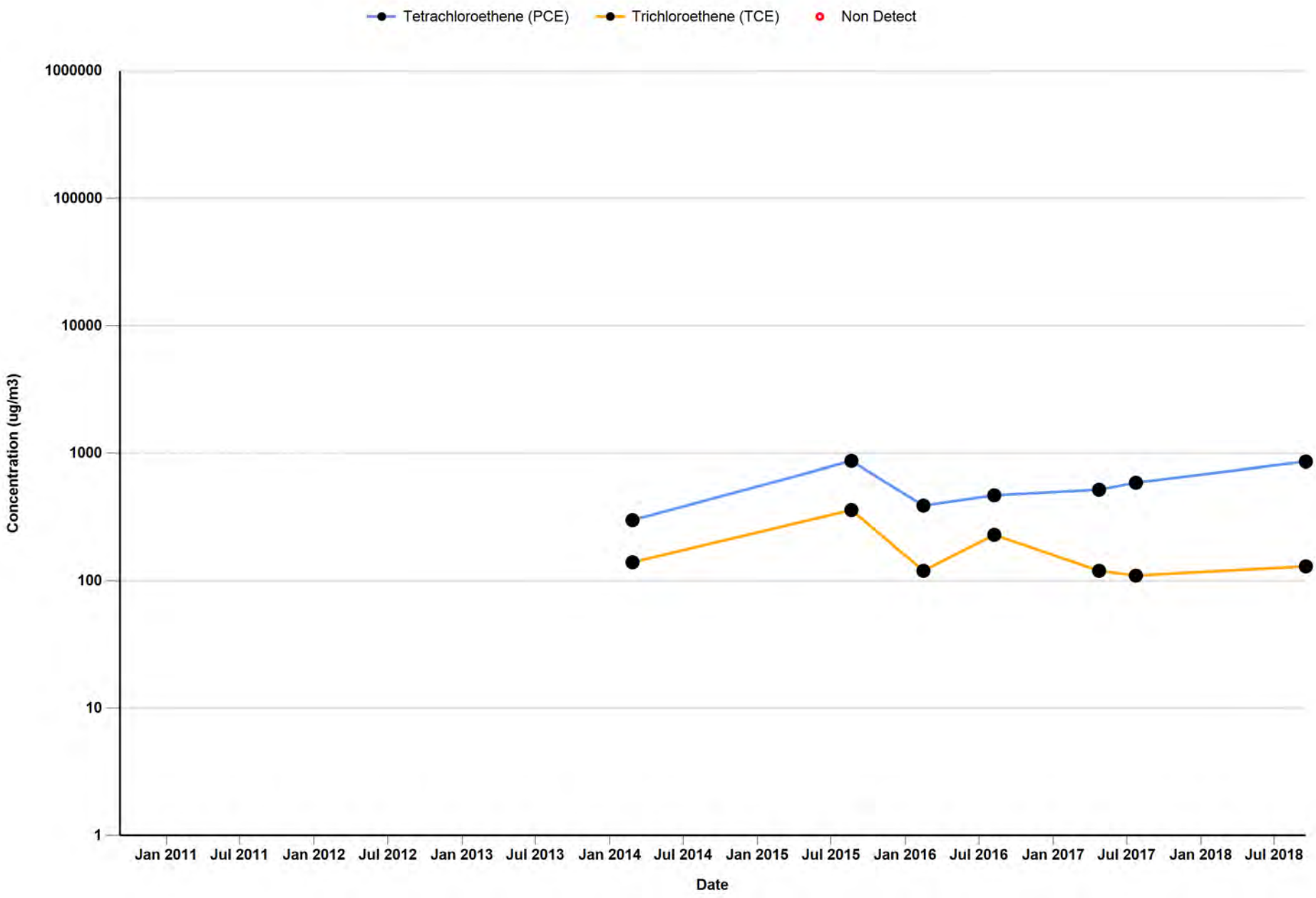
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-13
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 6 ft-bgs
Omega Chemical Superfund Site



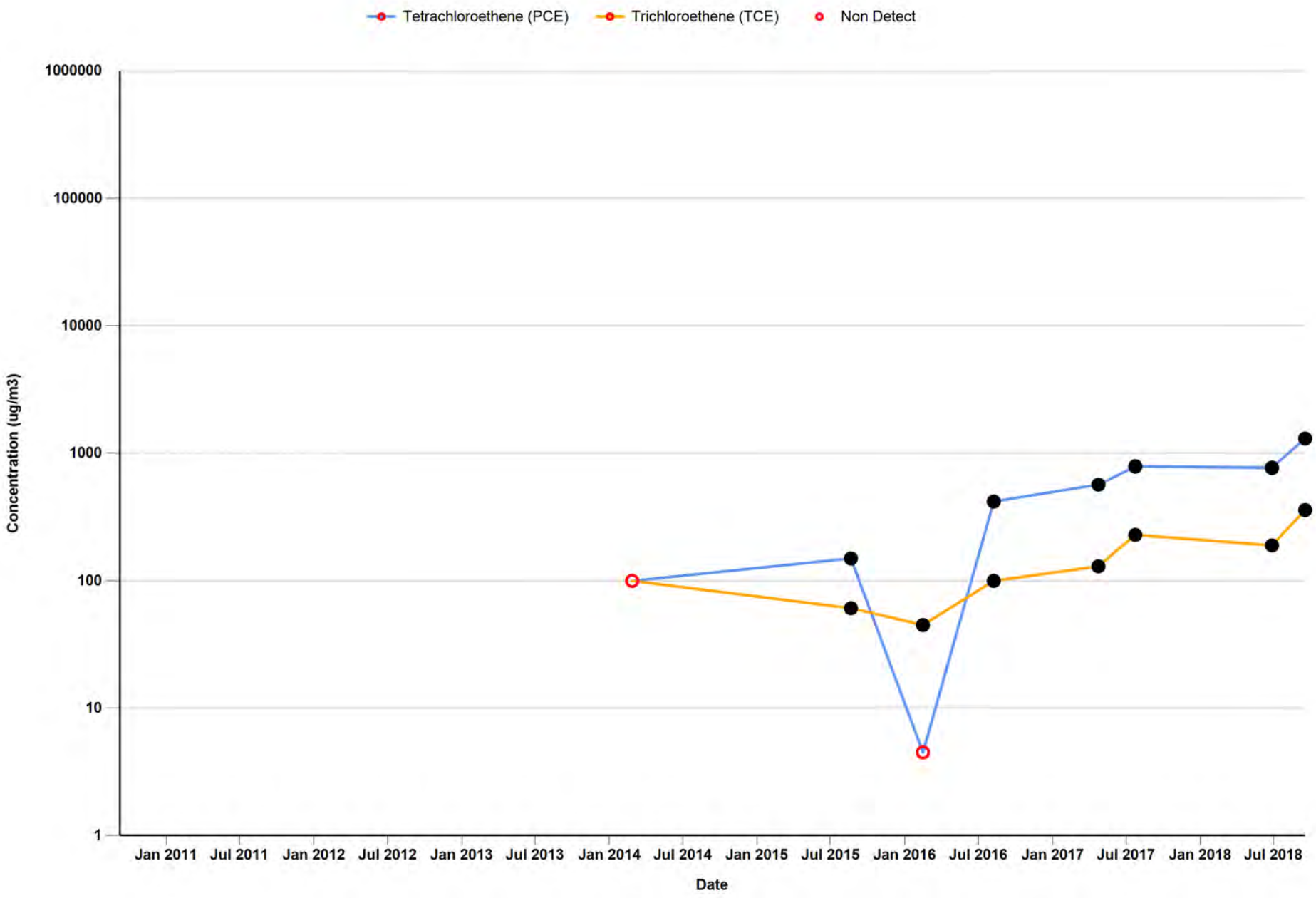
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-14
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 12 ft-bgs
Omega Chemical Superfund Site



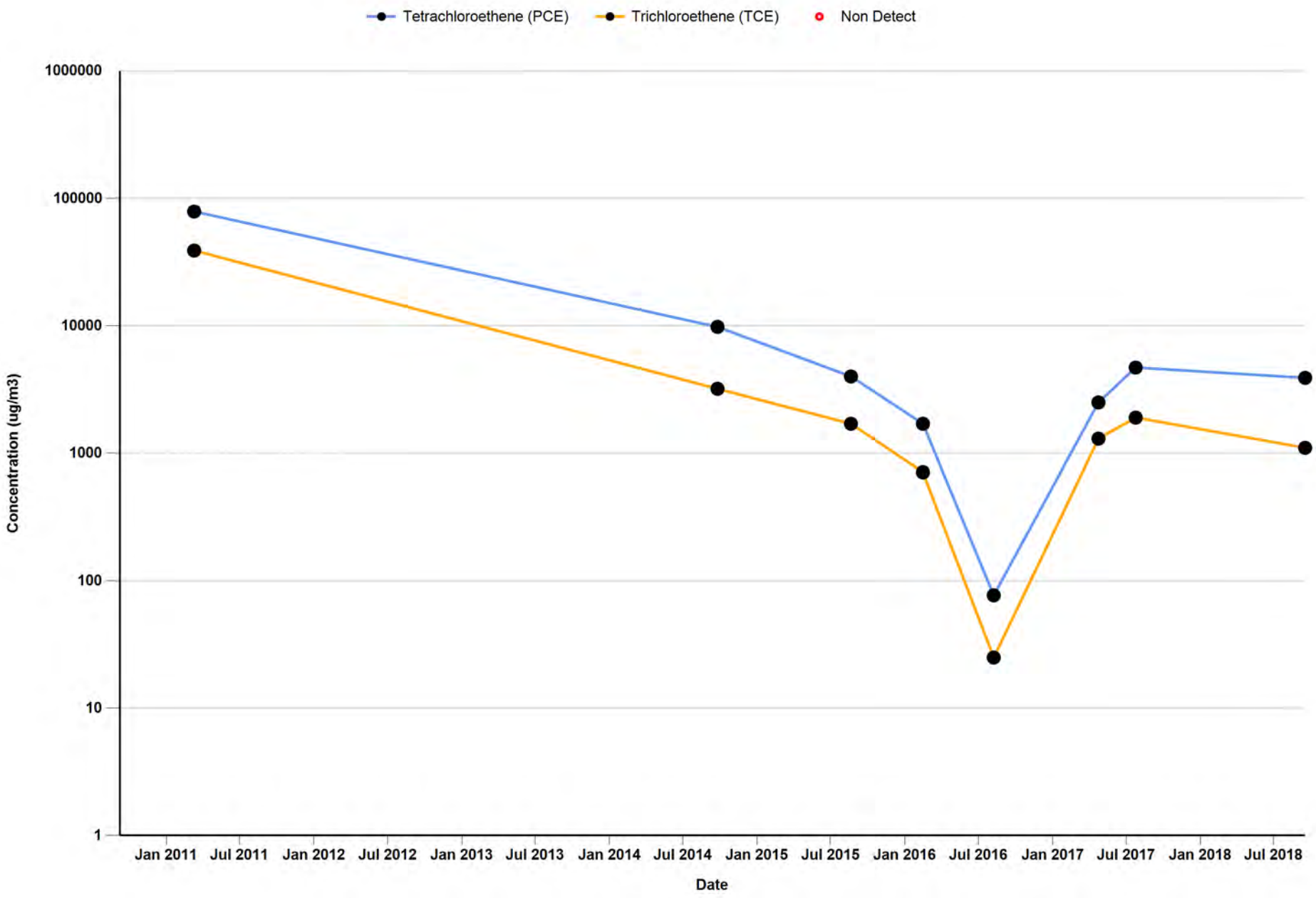
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-15
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 24 ft-bgs
Omega Chemical Superfund Site



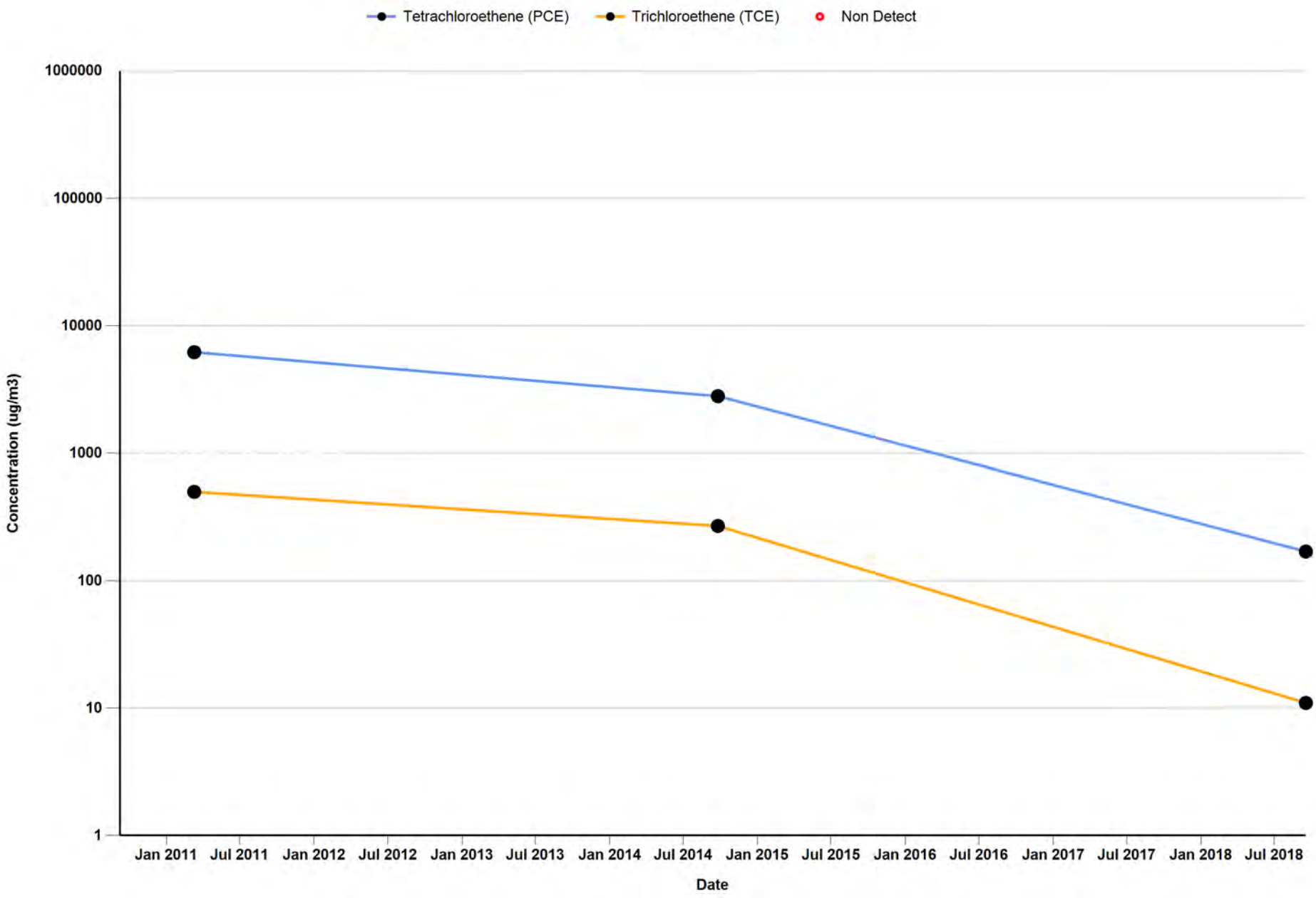
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-16
Other Soil Gas PCE and TCE Concentrations
VMP-39 at 55 ft-bgs
Omega Chemical Superfund Site



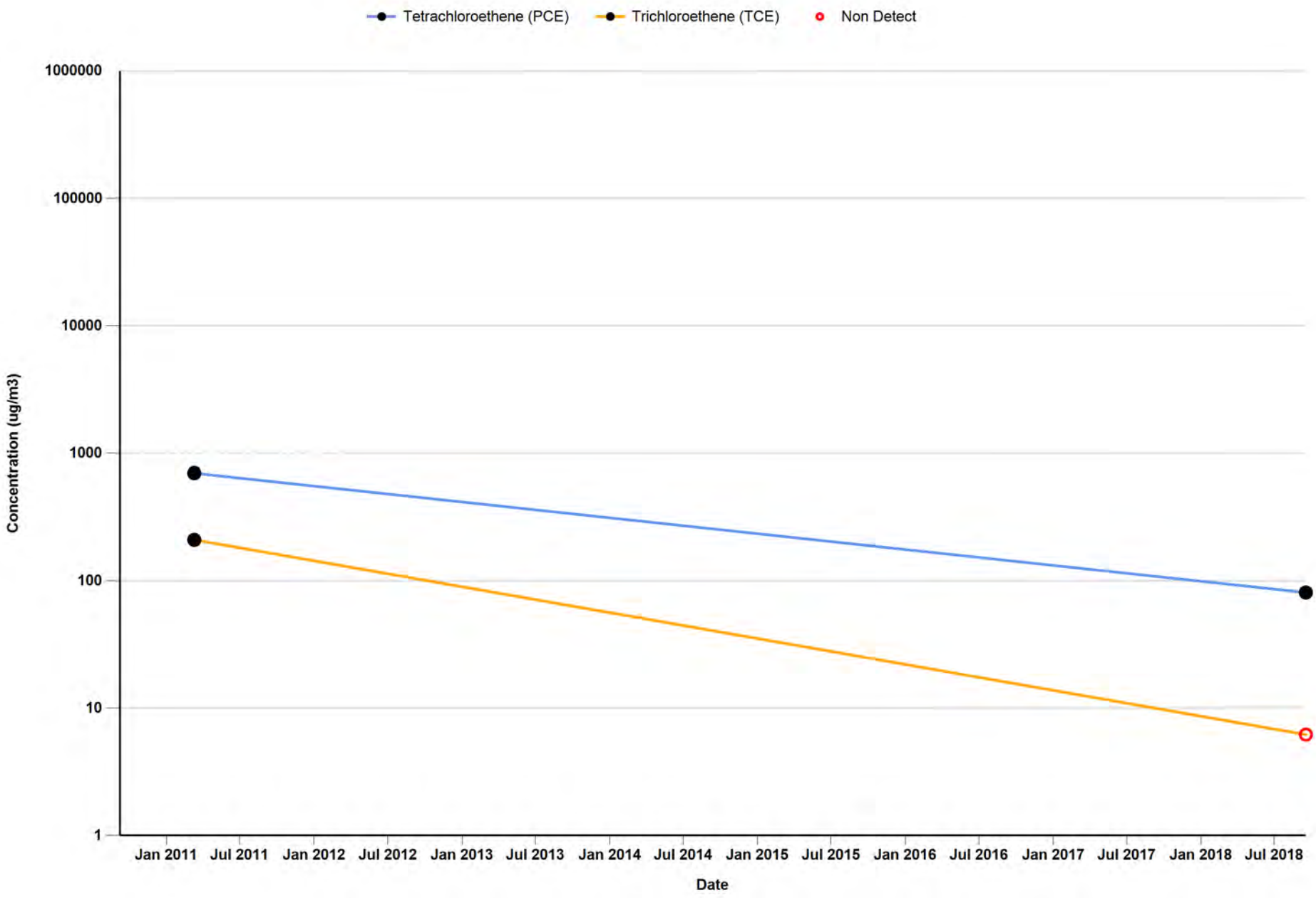
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-17
Other Soil Gas PCE and TCE Concentrations
VMP-40 at 55 ft-bgs
Omega Chemical Superfund Site



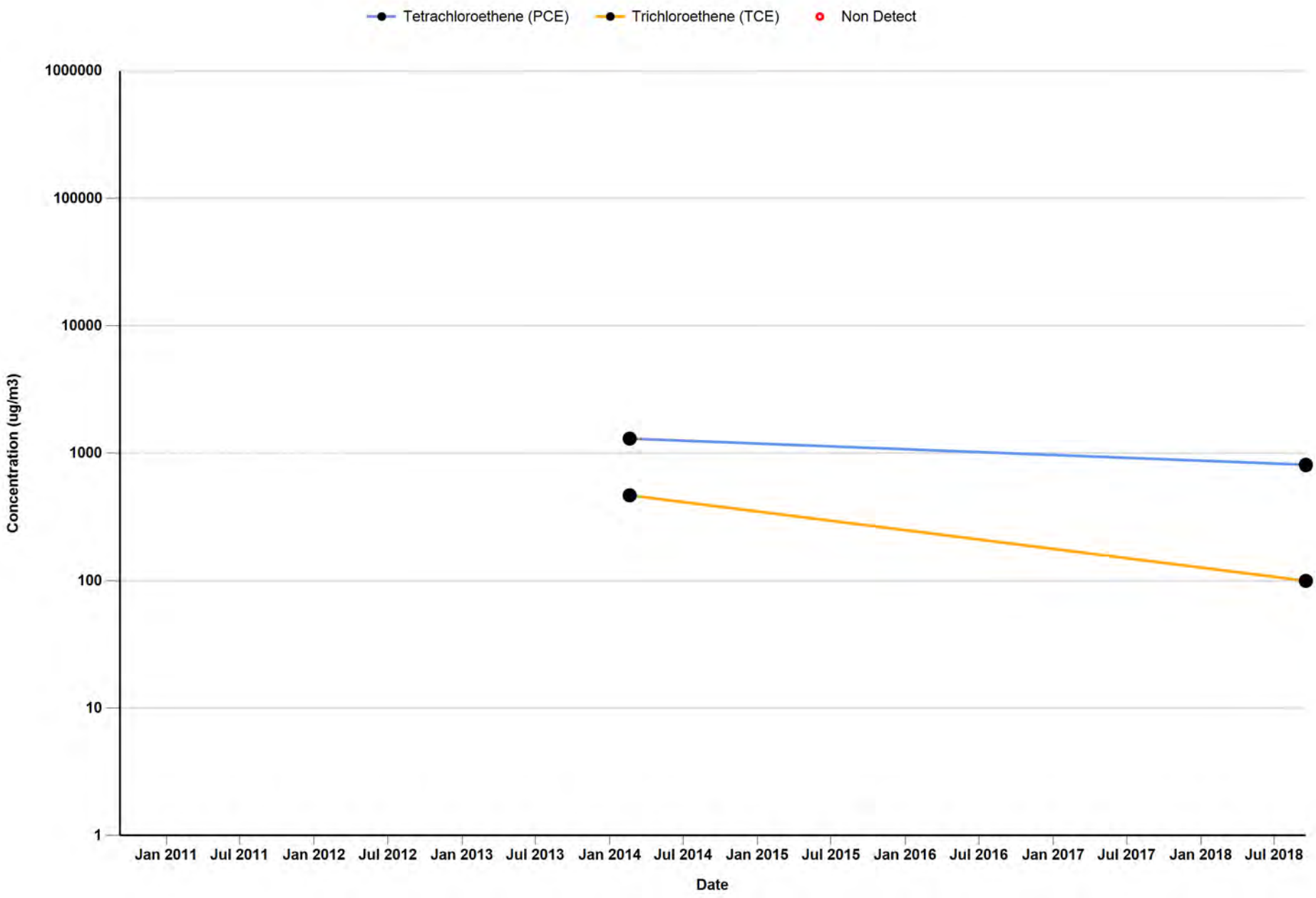
NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-18
Other Soil Gas PCE and TCE Concentrations
VMP-41 at 55 ft-bgs
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-19
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 40 ft-bgs
Omega Chemical Superfund Site

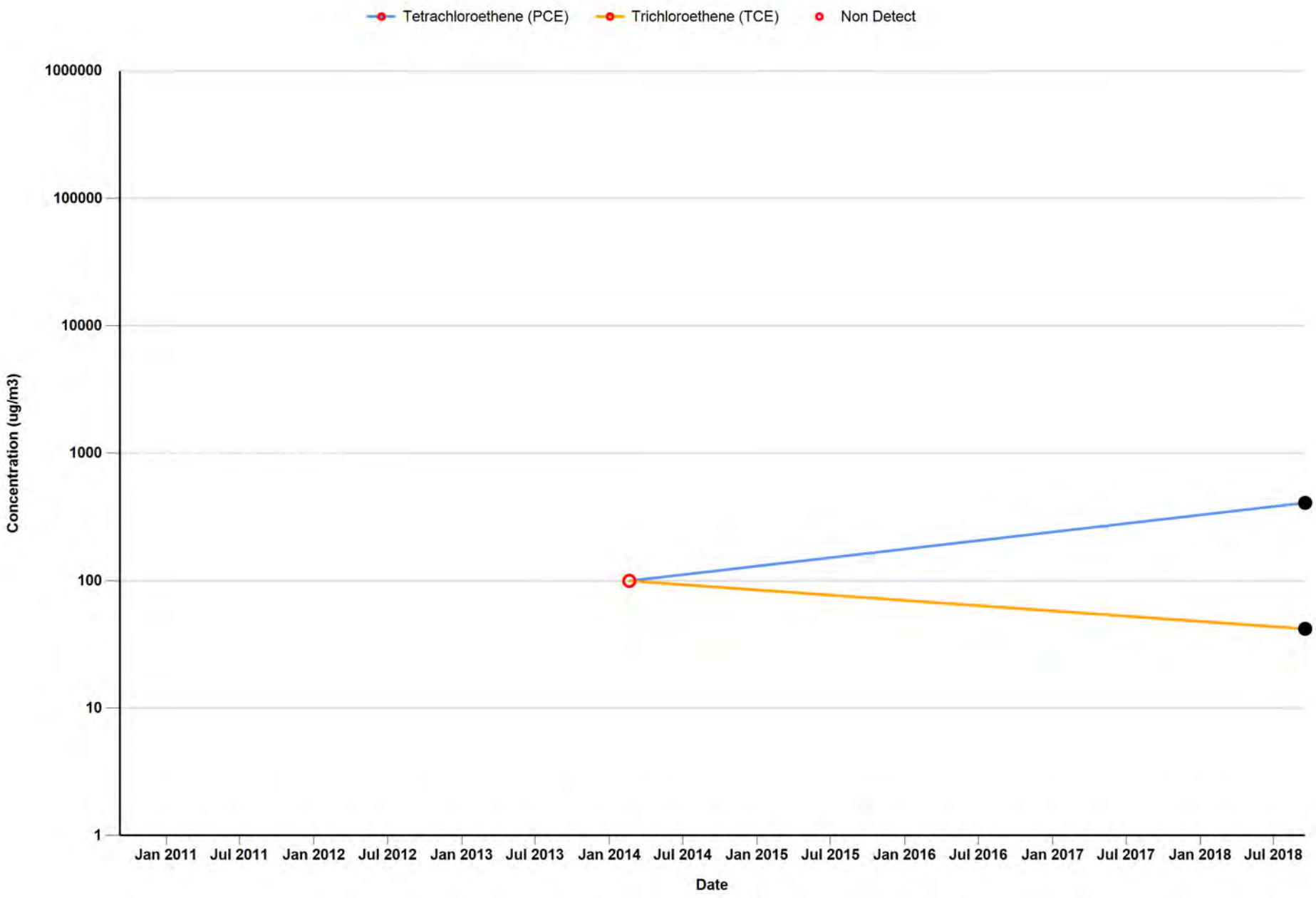


NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-20
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 50 ft-bgs
Omega Chemical Superfund Site

NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph

Attachment H, Figure H-21
Other Soil Gas PCE and TCE Concentrations
VMP-84 at 60 ft-bgs
Omega Chemical Superfund Site



NOTE: Nondetect results are shown at the reporting limit and presented with open symbols on the graph