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November 15, 2016

Ms. Rosemarie Caraway
Environmental Scientist
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Subject: Performance Standard Verification Plan,
Annual Monitoring Submittal,
(October 2015 through September 2016), Groundwater Treatment System,
Omega Chemical Superfund Site, Whittier, California

Dear Ms. Caraway:

Enclosed for your review is the Performance Standard Verification Plan (PSVP), Annual Monitoring Progress Report (October 2015 through September 2016), Groundwater Treatment System (GWTS), Omega Chemical Superfund Site, Non-Time Critical Removal Action.

The enclosed annual report, including 3nd Quarter 2016 data, is being submitted in accordance with the reporting requirements defined in the February 2010 Operations, Maintenance, and Monitoring Manual for the operation of the GWTS. Additionally, this report describes the GWTS performance monitoring activities per the April 2007 PSVP. Overall, this report is being provided to satisfy the data reporting requirements defined under Section IX of the February 2001 Consent Decree (CD) No. 00-12471 between the United States Environmental Protection Agency (USEPA) and OPOG to address contamination in Operable Unit 1 (OU-1).

Should you have any questions, regarding the above, please contact me.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

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cc:

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de maximis, inc.

November 15, 2016

PERFORMANCE STANDARD VERIFICATION PLAN

ANNUAL MONITORING SUBMITTAL

NOVEMBER 2016

OMEGA CHEMICAL SUPERFUND SITE

Prepared for:

Omega Chemical Site
PRP Organized Group
(OPOG)

Prepared by:

de maximis, inc.
1322 Scott Street, Suite 104
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The information contained in this document has received the appropriate technical review and approval. This acknowledgement is made in lieu of all warranties, either expressed or implied. The activities outlined in this report were performed under the supervision of a California Registered Professional

Reviewed and Approved by:

Jaime Dinello

Jaime Dinello, P.E., License No. C73978, Expires 06/2017
Project Engineer

PERFORMANCE STANDARD VERIFICATION PLAN

Annual Monitoring Submittal

November 2016

GROUNDWATER TREATMENT SYSTEM

Omega Chemical Superfund Site

Non-Time Critical Removal Action (NTCRA)

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B Laboratory Analytical Reports and Data Validation Report
C Field Forms
D Time Series Charts: Water Levels and Water Quality
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ACRONYMS AND ABBREVIATIONS

AM	Action Memorandum
Bgs	Below ground surface
µg/L	micrograms per liter
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CD	Consent Decree
COD	Chemical Oxygen Demand
DPE	Dual Phase Extraction
GWTS	Groundwater Treatment System
gpd	gallons per day
gpm	gallons per minute
HRA	Health Risk Assessment
NTCRA	Non-Time Critical Removal Action
OM&M	operation, maintenance, and monitoring
OPOG	Omega Chemical Site PRP Organized Group
OU-1	Operable Unit 1
OU-2	Operable Unit 2
OW	Observation well
PCE	Tetrachloroethene
PID	Photoionization Detector
PRP	Potentially Responsible Party
PSVP	Performance Standards Verification Plan
PZ	Piezometer
RAOs	Remedial Action Objectives
SCAQMD	South Coast Air Quality Management District

SDLAC	Sanitation Districts of Los Angeles County
SMR	Self-Monitoring Report
SVE	Soil Vapor Extraction
SVOCs	Semi-Volatile Organic Compounds
TCE	Trichloroethene
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound
VGAC	Vapor Phase Granular Activated Carbon

PERFORMANCE STANDARD VERIFICATION PLAN
Annual Monitoring Submittal

GROUNDWATER TREATMENT SYSTEM
Omega Chemical Superfund Site
Non-Time Critical Removal Action (NTCRA)

REPORTING PERIOD October 2015 – September 2016

EXECUTIVE SUMMARY

This annual monitoring submittal has been prepared by *de maximis, inc.* on behalf of the Omega Chemical Site PRP Organized Group (OPOG) for the Omega Chemical Superfund Site (the Site) located at 12504 and 12512 Whittier Blvd, Whittier, California. This monitoring submittal covers the period October 2015 through September 2016, and satisfies the reporting requirements and performance standards defined under Section IX of the February 2001 Consent Decree (CD) No. 00-12471 between the United States Environmental Protection Agency (USEPA) and OPOG to address contamination in the Phase 1a area, which is synonymous with Operable Unit 1 (OU-1). Per the 2001 CD, OPOG submitted an Engineering Evaluation and Cost Analysis to the USEPA in July 2005 that proposed the installation and operation of a groundwater containment system. USEPA issued an Action Memorandum in September 2005 which approved the groundwater containment remedy. Subsequently, the groundwater treatment system (GWTS) was installed at the Site and became operational in July 2009. The purpose for the GWTS is to prevent groundwater containing high concentrations of volatile organic compounds (VOCs) from migrating down gradient of OU-1.

This annual submittal presents the quarterly and semi-annual groundwater monitoring data collected in relation with the operational and performance monitoring data collected during the previous 12 months. These data were collected in general accordance with the Operations, Maintenance, and Monitoring Manual for the GWTS, and with the Performance Standards Verification Plan.

In brief, the GWTS includes five groundwater extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5), five dual-phase extraction (DPE) wells (DPE-3, DPE-4, DPE-5, DPE-8, and DPE-9), the treatment plant, and conveyance piping.

The GWTS operational data for the reporting period are summarized as follows:

- The GWTS was 100 percent operational during the third quarter 2016, and 96 percent over the annual reporting period.
- Over 378,000 gallons of groundwater were extracted and treated during the third quarter, removing approximately 2.5 pounds of VOCs.
- Annually, over 2.1 million gallons were extracted and treated, removing approximately 17 pounds of VOCs.
- The GWTS has removed approximately 937 pounds of VOCs since inception in 2009.

Overall, the performance objectives as defined in the 2001 CD and further defined in the PSVP were met during the reporting period and are summarized as follows:

- Measured water levels show a cone of depression surrounding GWTS extraction wells. Water level contours indicate the horizontal gradient of groundwater underlying the site is toward the center of the Phase 1a boundary, which demonstrates hydraulic capture in accordance with the PSVP objectives.
- Simulated flow directions output from the groundwater model support the assessment of measured water levels which indicates hydraulic containment of groundwater underlying the Site.
- Concentrations of VOCs in samples collected from wells located downgradient of the Site show decreasing or stable trends. These results also demonstrate hydraulic capture in accordance with the PSVP objectives.

1. INTRODUCTION

This annual monitoring submittal has been prepared by *de maximis, inc.* (*de maximis*) on behalf of the Omega Chemical Site PRP Organized Group (OPOG) for the Omega Chemical Superfund Site (the Site) located at 12504 and 12512 Whittier Blvd, Whittier, California (Figure 1). This monitoring submittal satisfies the reporting requirements and performance standards defined under Section IX of the February 2001 Consent Decree (CD) No. 00-12471 (USEPA, 2001) between the United States Environmental Protection Agency (USEPA) and OPOG to address contamination in the Phase 1a area, which is synonymous with Operable Unit 1 (OU-1). The Phase 1a area is defined as the area of soil and groundwater contamination associated with the Omega Property and extending downgradient approximately 100 feet southwest of Putnam Street, Whittier, California (Figure 1). Per the 2001 CD, OPOG submitted an Engineering Evaluation and Cost Analysis (EECA) to the USEPA in July 2005 that proposed the installation and operation of a groundwater containment system. USEPA issued an Action Memorandum (AM) in September 2005 which approved the groundwater containment remedy (USEPA, 2005). Subsequently, the groundwater treatment system (GWTS) was installed at the Site and became operational in July 2009. With this understanding, the purpose for the GWTS is to prevent groundwater containing high concentrations of volatile organic compounds (VOCs) from migrating down gradient of OU-1, as stated AM (USEPA, 2005). As requested by EPA, the Omega Chemical Superfund Site Operable Unit 2 (OU-2), is also shown on Figure 1. OU-2 is defined as the downgradient extent of groundwater contamination above screening levels that originated from multiple commercial and industrial facilities in Whittier and Santa Fe Springs. A closer detail of the OU-1 location is shown on Figure 2. No additional information or data regarding OU-2 is presented in this Annual Report since the USEPA has issued a separate CD for OU-2 project activities.

The OU-1 data submitted herein were collected during routine operation of the groundwater treatment system (GWTS) located at the Site. Two types of data are presented in this monitoring submittal: GWTS operations, and quarterly groundwater monitoring. GWTS operational data generally consist of system runtime, flow rate, and mass removal. Groundwater monitoring consists of the collection of water level measurements and water quality samples from the Omega site wells. The collection of water levels occurs on a quarterly basis, while the collection of groundwater quality samples from the Omega wells occurs semi-annually in

February and August of each year. This annual submittal contains the quarterly and semi-annual data collected in August 2016, and summarizes data collected during the previous 12 months. These data were collected in general accordance with the Operations, Maintenance, and Monitoring (OM&M) Manual (CDM, 2010) for the GWTS, and with the Performance Standards Verification Plan (PSVP) (CDM, 2007), respectively.

The purpose for collecting GWTS operational data is to assess the efficiency of the system. GWTS operational data are collected weekly during routine maintenance activities. These data are presented in Section 2.

Groundwater monitoring data, specifically water level measurements and water quality analytical data, are collected to evaluate the hydraulic capture of groundwater with high VOCs by the GWTS, thereby preventing it from migrating down gradient of Phase 1a area. Groundwater monitoring data collected during this reporting period for the Annual submittal (third quarter) consist of water level measurements and groundwater analytical data. Water level data and evaluation are presented in Section 3. Water quality data and evaluation are presented in Section 4.

2. TREATMENT SYSTEM OPERATIONS

This section provides a description of the GWTS (Section 2.1), followed by a summary of GWTS operational data (Section 2.2) and a summary of extraction well operations (Section 2.3). Air stripper operations and mass removal are presented in Section 2.4; results from compliance monitoring are presented in Section 2.5. A summary of optimization activities conducted during this reporting period is provided in Section 2.6.

2.1. DESCRIPTION OF GWTS

The primary goal of the GWTS is to prevent groundwater containing high concentrations of VOCs from migrating down gradient of the Phase 1a area (USEPA, 2005). The primary components of the GWTS include five groundwater extraction wells (EW-1, EW-2, EW-3, EW-4, and EW-5), five dual-phase extraction (DPE) wells (DPE-3, DPE-4, DPE-5, DPE-8, and DPE-9), the treatment plant, and conveyance piping (Figure 3). The DPE wells were added to the GWTS in 2014; there are no historical data from these wells prior to 2014. (Note: The DPE wells are also a part of the OU-1 Full-Scale Soil Vapor Extraction (SVE) Remedy that is now in operation;

SVE operations are reported separately. A complete summary of the DPE system will be provided in the Full-Scale Soil Vapor Extraction Construction Completion Report due to EPA subsequent to the system completion inspection.)

Extracted groundwater is treated by air stripping to remove the VOCs from the processed water prior to discharge to the Sanitation Districts of Los Angeles County (SDLAC) sewer system. The stripped VOCs are treated by vapor phase granular activated carbon (VGAC). The treated vapor stream is monitored in accordance with requirements established with the South Coast Air Quality Management District (SCAQMD). A schematic of the process flow is provided in Figure 4. Additional details regarding the GWTS treatment process are available in the OM&M Manual (CDM, 2010).

2.2. OPERATIONAL DATA SUMMARY

Operational monitoring activities are conducted weekly to maintain and verify system performance. Key performance data are compiled and presented below, and in Table 1 and Figure 5.

- Average GWTS run time (3Q16/ year): 100 / 96 percent
- Average GWTS flow rate (3Q16/year): 2.9 / 4.1 gallons per minute
- Total gallons processed (3Q16/year): 378,270 / 2,163,720 gallons
- Cumulative gallons processed (since start-up): 36,319,545 gallons
- Mass removal (3Q16/year): 2.5 / 17.1 pounds
- Cumulative mass removed (since start-up): 937 pounds

The GWTS was 100 percent operational during the third quarter, and 96 percent over the year. There were no planned or fault shutdowns during the subject quarter.

2.3. EXTRACTION WELLS

Operational data from the individual extraction wells for the period October 2015 to September 2016 are summarized in Table 2. The measured pump run-time, and the calculated volume and flow rates per well are provided. Two flow rates are calculated for each well: 1) the operational flow rate [average gallons per minute] based on the volume removed and the operational hours (run time) of the pump, and 2) the average monthly flow rate [gallons per month total] based on the volume removed and the total hours in the month. Table 2 also shows the estimated contribution of each well toward the total mass removed for the year.

All extraction wells were mechanically functional during this reporting period. Pump operation is controlled by the user-defined high and low water-level set points. A pressure transducer in each well transmits water-level information to the control system. Pumps turn on at the high-water level set point, and turn off at the low water-level set point.

As indicated above, the extraction system is comprised of five original groundwater extraction wells installed in 2001 (EW-1, EW-2, EW-3, EW-4, and EW-5), five dual-phase extraction (DPE) wells installed in 2014 (DPE-3, DPE-4, DPE-5, DPE-8, and DPE-9).

Water levels across the Site have declined due to groundwater extraction by the GWTS and the ongoing drought in Southern California. These affects have reduced the duration of operation of some of the EW-series pumps. The DPE wells are currently the primary GWTS contributors to overall groundwater removal, this year contributing approximately 91 percent toward the total annual system volume removed (Table 2). DPE-9 is the primary pumping well, contributing approximately 44 percent of the total system flow for the year.

Extraction from the DPE-series wells, especially DPE-9, is depressing the water level locally to below the screened intervals in nearby wells EW-1, EW-2, and EW-3. The water level in EW-2 was below operational limits since March 2016, and remained there throughout the remainder of the annual reporting period. Water levels in EW-1 and EW-3 were also at or below pump operational limits during most of the second and third quarter 2016, resulting in no pumping, or brief intermittent periods of pumping. EW-4 and EW-5 continued to operate briefly and intermittently during each month.

Generally, adjusting the operational set points or dropping pumps lower in a well could increase pump operation; however, operational and depth setting are limited based on installation requirements for discharge head (minimum water column over the pump intake) and motor depth (distance between the bottom of the motor and well bottom). The settings for the pumps in EW-1, EW-2, and EW-3 are at, or have already exceeded the generally acceptable limits. Overall, EW-1 through EW-5 contributed approximately 196,350 gallons, or approximately 9 percent toward the annual total groundwater removal (Table 2).

It is important to emphasize that the EW-series and the subsequently installed DPE-series extraction wells provide hydraulic containment. Specifically, the EW-series wells fully penetrate the coarser grained sandy materials that represent the aquifer (the A-zone) initially targeted for dewatering to achieve hydraulic containment (Figure 6). The DPE wells extend approximately ten feet deeper than the EW wells, crossing through the permeable A-zone, into sediments dominated by lower permeability clays and silts that are less correlated to hydraulic-capture success. DPE wells further expose the VOC impacted capillary fringe, pulling vapor and a limited amount of water from the lower permeability sediments. The DPE wells enhance the overall effectiveness of the containment strategy.

Further discussion on water levels is provided in Section 3, including an additional discussion of hydraulic capture in Section 3.4.

2.4. AIR STIPPER OPERATIONS AND MASS REMOVAL

The effectiveness of the air stripper to remove VOCs from extracted groundwater is verified monthly by collecting and analyzing water samples from the air stripper influent and effluent. These data for the period October 2015 to September 2016 are presented in Table 3 and demonstrate that the air stripper is functioning as expected. Corresponding laboratory results are in Attachment B. GWTS influent concentrations over time are shown on Figure 8.

Tetrachloroethene (PCE) is the compound detected at the highest concentrations in the air stripper influent. The PCE influent concentrations declined during the reporting period from 860 micrograms per liter (ug/l) in October 2015 to 580 ug/L in September 2016, while effluent concentrations were all below the reporting limit of 1 ug/l. Since the GWTS commenced operations in June 2009, the overall PCE influent concentrations have decreased 96 percent, from approximately 15,000 ug/l in June 2009 to the most recent concentration of 580 ug/l in September 2016 (Table 3 and Figure 8).

The system influent VOC concentrations (Table 3) are used to calculate the GWTS mass removal shown above and in Figure 5. The cumulative mass removed is a summation of the monthly values over time.

2.5. COMPLIANCE MONITORING

Compliance monitoring of the GWTS is being conducted per SDLAC requirements for discharge of treated water, and the SCAQMD for discharge of treated air. The results of these monitoring activities are presented below.

2.5.1. TREATED WATER DISCHAGE

SDLAC issued an Industrial Waste Discharge Permit (No. 20039) in September 2007 for the discharge of treated water from the Omega Chemical GWTS to sewer manhole No. MH 18-0271 at Crowndale Street. As required, the permit is renewed on a five-year basis with the last permit renewal approved by SDLAC on August 20, 2012.

All compliance samples are collected on a quarterly basis from the sample box, identified as 20039A, and analyzed by a third-party representative, currently Test America, as required by the permit. Test America is located in Irvine, California. The effluent water is analyzed as shown below.

Summary of GWTS Effluent Analysis

Analyte	Collection Method
Volatile organic compounds (VOCs) by Method 8260B	Grab Sample
1,4-Dioxane by Method 8270M	Grab Sample
Semi-volatile organic compounds (SVOCs) by Method 8270C	Grab Sample
Soluble Sulfide by Method SM4500S $^{+}$D	Grab Sample
pH by field analysis	Grab Sample
Total suspended solids (TSS) by Method SM2540D	24-hour composite sample
Chemical oxygen demand (COD) by Method SM5220D	24-hour composite sample

The results for quarterly effluent samples collected on August 18, 2016 were provided to SDLAC in the Self-Monitoring Report (SMR) submitted on October 13, 2016 (Attachment A). The analytical results for all samples collected show VOCs, SVOCs, and 1,4-Dioxane were reported by the lab as within SDLAC permit limits or as non-detectable. Previously submitted SDLAC reports for the year are also provided in Attachment A.

2.5.2. TREATED VAPOR DISCHARGE

Two VGAC vessels are used in series to treat the air-stripper vapor effluent prior to discharge to the atmosphere. Although a permit to operate is not required from SCAQMD per CERCLA 121, the VGAC associated with the air-stripper is being monitored to verify that the vapor effluent meets the emissions limits identified in the SCAQMD Health Risk Assessment (HRA)

(CDMSmith, 2015). The operational limits are shown in the table below. The HRA toxic air contaminant limits are shown in Table 4.

SCAQMD Effluent Quality Limits

SCAQMD requirement	VPGAC Effluent Limit
Flow (scfm)	1,000
Temperature (°F)	145
Primary Bed Efficiency (percent)	90
Primary Bed Effluent (ppmv hexane)	12
Secondary Bed Effluent (ppmv hexane)	3.6

Ref: SCAQMD Health Risk Assessment (CDMSmith, 2015)

scfm: standard cubic feet per minute

°F: degrees Fahrenheit

ppmv hexane: parts per million by volume, by photo ionization detector calibrated as hexane

Vapor samples are collected for laboratory analyses from the influent, midpoint, and effluent of the VGAC vessels in accordance with the method and frequency presented in the OM&M Manual. These VGAC effluent data are used to confirm compliance with vapor discharge emission limits. The analytical results and associated HRA limits for the period October 2015 to September 2016 are shown in Table 4. As can be seen in Table 4, vapor discharge during the third quarter showed continued compliance with the HRA emission limits for eight toxic air contaminants identified in the HRA. The VGAC data collected during the previous year are also shown on Table 4; emission limits were in compliance during the entire annual reporting period.

Weekly monitoring of the process vapors using a hand-held photo-ionization detector (PID) showed continued effective treatment by the VGAC and compliance with the SCAQMD HRA efficiency requirements. These state that a carbon change out must occur when the efficiency of the primary absorber drops below 90% and the VOC concentration measured at the outlet of the primary absorber exceeds 12ppmv as hexane. These limits were not exceeded during the annual reporting period October 2015 through September 2016; no carbon change out was required (Table 5). Therefore, the GWTS was substantively compliant with SCAQMD regulations during this annual reporting period.

2.6. OPTIMIZATION ACTIVITIES

Optimization activities conducted during the third quarter 2016 include the following:

- Options for increasing pump operational time in wells EW-4 and EW-5 were evaluated, including the potential to reset the pumps lower in the wells. Field activities to increase drawdown at EW-4 and EW-5 are planned for the fourth quarter 2016.
- OPOG transitioned to using a ppb-detectable range PID, from a ppm-range PID to improve the accuracy of field measurements.

3. GROUNDWATER MONITORING ACTIVITIES

Groundwater monitoring is conducted to assess conformance with the primary goal of preventing groundwater containing high concentrations of VOCs from migrating down gradient of the Phase 1a area (USEPA, 2005). The assessment is based on water level measurements and water quality data collected from select observation wells and piezometers as defined in the PSVP (CDM, 2007).

A summary of water level data collected during the third quarter and throughout the annual reporting period is presented in Section 3.1. A discussion of vertical and horizontal gradients is presented in Section 3.2.

A summary of groundwater analytical results collected in February and August 2016 is presented in Section 3.3.

Discussion on the effectiveness of hydraulic capture based on water level and water quality data is presented in Section 3.4.

3.1. WATER LEVELS

Depressions observed in localized water table elevations at the Site will give indication that the GWTS is generating hydraulic capture of groundwater. Water levels are measured on a quarterly basis. The gauged wells and piezometers are constructed in shallow and deep zones. The shallow (A-Zone) is the water table aquifer; the deep (B-Zone) is a water-bearing unit underlying the A-Zone, separated from it by a confining unit. Typically, the A-zone wells are screened to depths ranging from approximately 30 to 100 feet bgs, whereas the B-Zone wells are screened at an interval greater than 110 bgs. Well and piezometer screen intervals are provided in Table 6.

Thirty-five wells (16 observation wells, nine piezometers, five extraction wells, and five DPE wells) were most recently gauged by JHA Environmental, Inc. (JHA) using an electronic water level sounder in August 2016. The measurements were repeated at each well to assure accuracy. The sounder was decontaminated between each well using a triple rinse using water with Alconox ®, tap water, and distilled water. Water levels were also measured in November 2015, and in February and May 2016.

A summary of water levels collected during this annual reporting period is presented in Table 6. Field forms documenting the monitoring work conducted during the third quarter are provided in Attachment C. Historical water level measurement data are presented in the form of time series hydrographs in Attachment D. A summary of measured groundwater elevations by zone is presented below.

3.1.1. A-ZONE WATER LEVELS

Trends in groundwater elevations in A-Zone observation wells (OWs) and piezometers are generally downward since 2007 as shown on the times series graphs in Attachment D. Figure 9 shows the most recent groundwater elevation contour map showing the August 2016 water level measurements. (See Section 3.4 for additional information on shallow groundwater contours, including contours prepared for previous quarterly reports.) As shown, flow is primarily converging on well DPE-9, with minor-to-moderate water table depressions around DPE-3, DPE-4, and DPE-8. The water level measured in OW-12 is high compared to surrounding measured locations. The measurement at OW-12 was repeated in September 2016 to verify the accuracy of the first measurement; the results were repeated. The localized high point is likely due to the low permeability of the local clay lithology throughout the OW-12 boring depth, including surrounding the OW-12 screen interval which occurs at approximately 80 – 100 feet bgs. Nearby extraction wells DPE-3 and DPE-8 are also constructed almost entirely in clay within the saturated zone except for a small lens of silty sand occurring at approximately 59 – 62 feet bgs at DPE-3, and at approximately 54 – 60 feet bgs at DPE-8. Well logs and a lithologic cross section of this area are provided in Attachment E.

A-Zone wells OW-1A, OW-2, OW-4A, OW-5, OW-6, OW-7 and OW-8A remained dry during the entire annual reporting period due to remedial pumping, as well as draught-caused regional declines. Upgradient well OW-7 is located outside the OU-1 boundary, and is outside the area

influenced by groundwater extraction (Figure 9). Regional groundwater flow (when not influenced by pumping) is to the west-southwest.

3.1.2. B-ZONE WATER LEVELS

The overall trend in groundwater elevations in B-Zone wells has been downward since 2007 (Attachment D). A limited-data contour of B-Zone water levels was generated (Figure 11). The lack of precipitation in the Los Angeles Basin appears to be a significant contributor to this trend. OW-4B is located outside the influence of the remedial pumping approximately 680 feet downgradient of the extraction wells along Putnam Street; water levels in OW-4B have declined approximately 25 feet since 2007, which supports the interpretation that the regional drop in water levels is due to the lack of precipitation. B-zone wells OW-1B, OW-3B, and OW-8B are located within the area of the extraction and DPE wells, however, the water levels in these wells are not influenced by the remedial pumping due to a confining unit between the A and B-zones (Figure 6). The direction of groundwater flow in the B-Zone underlying the Phase 1a area is in accordance with regional flow to the west-southwest, and does not appear to be influenced by pumping.

3.2. HORIZONTAL AND VERTICAL GRADIENTS

Groundwater generally flows from the northeast to southwest across the Site, as depicted on the water level contour maps for the A-Zone and B-Zone (Figures 9 and 11). As mentioned above, flow is primarily converging on well DPE-9, with a minor water table depression around DPE-3 and DPE-8, on the order of 0.03 to 0.04 ft/ft. The horizontal gradient along Putnam Street towards DPE-9 is approximately 0.05 ft/ft. The cone of depression generated by the extraction and DPE wells extends approximately 40 feet down gradient from DPE-9. Also shown on Figure 9, the horizontal gradient within the A-Zone is affected by continued groundwater extraction from extraction and DPE wells

Potential downward gradients are present at the OW-3A/3B well pair, where the head in the A-Zone well is higher than the head in the B-Zone well. The shallow wells in the OW-1A/1B, OW-4A/4B, and OW-8A/8B pairs were dry in August 2016. However, as previously discussed, the A-zone within the OU-1 boundary has been significantly dewatered by extraction and the ongoing drought, reducing the downward cross-zone pressure. In addition, the confining layer likely mitigates the transmission of remaining water from the A-Zone to the B-Zone; the low concentrations detected in the B-Zone wells support this assessment. Hydrographs of the well pair, along with additional discussion on gradients, are provided in Attachment F.

3.3. GROUNDWATER ANALYTICAL SUMMARY

Concentration trends in observation wells located downgradient of the GWTS are used to evaluate hydraulic capture. Water quality data are collected semi-annually in February and August of each year. In accordance with the approved PSVP the following were sampled: 5 extraction wells, 2 piezometers, 8 observations wells, and 5 DPE wells as shown on Table 7 and in Figures 12 through 17. In addition, responsive to a request from EPA, an additional six piezometers (PZ-1, -4, -5, -6, -7, and -8) were sampled in September 2016. The results from these locations are shown on Table 7 and Figures 12 through 17. Observation wells OW-1A, OW-2, OW-3A, OW-4A, OW-5, OW-6, OW-7, and OW-8A were not sampled because they were observed to be dry (no water detected, or water detected was below the screen interval, or the well was unable to produce sufficient water for the sample). Each semi-annual groundwater sample collected this period was analyzed for the following parameters:

- VOCs, plus acetone, isopropyl alcohol, methyl tert-butyl ether, Freon 11, Freon 12, and Freon 113 by Method 8260B
- 1,4-Dioxane by Method 8270M

The analytical results for the February and August 2016 semi-annual samples are summarized in Table 7. A summary of the third quarter data quality assessment is provided in Table 8. Laboratory Analytical Reports and the data validation report are in Attachment B.

Groundwater parameters were measured and recorded during purging to verify static conditions prior to collection of samples. These parameters include specific conductance, temperature, pH, and turbidity. Field forms are in Attachment C.

Data were assessed to determine if they are usable for project objectives. Data quality qualifiers that resulted from the quality assessment review are shown and briefly defined on Table 7, and in detail in the data validation report provided in Attachment B. Data were also reviewed to determine sampling frequency, target analyte list, reporting limits, and holding times. No secondary data are used for this project. In summary, all new data were determined to be usable for project objectives. The full data validation report is presented in Attachment B.

The most prevalent compound detected in groundwater at the site is PCE, followed by Trichloroethene (TCE) and 1,4-Dioxane. Historical concentrations of PCE, TCE, and Total

VOCs (in groundwater from extraction wells, DPE wells, piezometers, and observations wells that are currently being monitored), are presented in Attachment D.

A brief summary of PCE, TCE, and 1, 4-Dioxane concentrations observed in August 2016 follows.

3.3.1. PCE

Concentrations of PCE measured in A-Zone and B-zone wells during the third quarter 2016 are summarized below.

3.3.1.1. A-Zone

PCE was detected in all A-Zone observation wells and piezometers sampled during the August 2016 sampling event (Table 7 and Figure 12), at concentrations ranging from 8.9J ug/l in PZ-5 to 8,100 ug/l in observation well OW-9. The concentrations at down-gradient monitoring wells, and former source area monitoring wells are discussed below.

<u>Down-gradient Monitoring</u>

Observation wells OW-9 and OW-10 are down gradient of the former Omega source area (Figure 12); concentrations of VOCs in these wells are used to evaluate the performance of the hydraulic containment remedy. OW-9 is located approximately 134 feet down gradient of Putnam Street and was initially sampled in March 2009. OW-10 is located approximately 158 feet downgradient of Putnam Street and was initially sampled in December 2009. Piezometer PZ-9 is also located down gradient of the former Omega source area, and is additionally used to assess capture. PZ-9 is located within the Phase 1a boundary, near the down gradient edge, approximately 67 feet downgradient of Putnam Street. PZ-9 was initially sampled in August 2012.

A summary of PCE concentrations at these down gradient locations is as follows, and is shown on Figure 12 and in time series charts presented in Attachment D:

- OW-9 concentrations have generally declined from a high of 28,000 ug/l in March 2009, to the most recent measurement of 8,100 ug/l in August 2016.
- OW-10 concentrations have generally declined from a high of 220 ug/l in March 2009, to the most recent measurement of 19 ug/l in August 2016.

- PZ-9 concentrations have generally declined from a high of 13,000 ug/l in August 2012, to the most recent measurement of 3,000 ug/l in August 2016.

Former Source Area Monitoring

Observation well OW-12, installed in January 2014, is used to monitor concentrations in the vicinity of the former Omega source area (Figure 12). OW-1A, the well with the historically highest detected concentrations, was formerly used for this purpose; however, it has been dry for several quarters due to remedial pumping and the ongoing draught. Before the well became dry, concentrations of PCE at OW-1A had declined from over 100,000 ug/l in 2010, to less than 100 ug/l in 2015. The screen interval for OW-1A is from 62.5 to 77.5 feet, bgs, whereas, the screen interval for OW-12 is from 80 to 100 feet, bgs. Concentrations of PCE have generally declined in OW-12 from 4,100 ug/l in August 2014, to 2,300 ug/l in August 2016; see Attachment D. The additionally sampled upgradient piezometers ranged in concentration from 7 ug/L at PZ-5 to 420 ug/L at PZ-1.

3.3.1.2. B-Zone

In the B-Zone, PCE was detected in all four wells sampled, with concentrations ranging between 4.6 ug/L at OW-3B, to 22 ug/L at OW-8B (Table 7, Figure 13). Historic concentrations are provided in time-series charts in Attachment D. A brief historical summary of PCE in the B-Zone follows:

- OW-1B: below 10 ug/L since 2013, compared to a historic high of approximately 300 ug/L in 2002;
- OW-3B: below 10 ug/L since mid-2006 compared to a historic high of approximately 11 ug/L in early 2006;
- OW-4B: generally between 1 and 10 ug/L since 2001 with intermittent exceptions in 2003, in 2009, and again in 2015 when concentrations were observed to range between 10 and 42 ug/L; and
- OW-8B: generally below 10 ug/L since 2001 with intermittent exceptions in 2008 – 2009, and 2014 - 2016 when concentrations were observed to range between 10 and 22 ug/L.

3.3.2. TCE

Concentrations of TCE measured in A-Zone and B-zone wells during the third quarter 2016 are summarized below.

3.3.2.1. A-Zone

TCE was detected in most of the A-zone wells sampled this period (Table 7, Figure 14), at concentrations ranging from 0.41J ug/L at PZ-7, to 340 ug/L at OW-9. TCE was not detected above the reporting limit for samples collected from PZ-5, PZ-6 and PZ-8. The concentrations at down-gradient monitoring wells, and former source area monitoring wells are discussed below.

Down-gradient Monitoring

A summary of TCE concentrations at the down gradient locations is as follows, and is shown in time series charts presented in Attachment D:

- OW-9 concentrations have generally declined from a high of 1,500 ug/l in February 2011, to the most recent measurement of 340 ug/l in August 2016.
- OW-10 concentrations have generally declined from a high of 23 ug/l in March 2009, to the most recent measurement of 1.2 ug/l in August 2016.
- PZ-9 concentrations have generally declined from a high of 720 ug/l in August 2012, to the most recent measurement of 190 ug/l in August 2016.

Former Source Area Monitoring

TCE concentrations in OW-1A, prior to it becoming dry, had declined from approximately 10,000 ug/l in 2006 to less than 1 ug/l in 2015. Concentrations of TCE in OW-12 have not significantly changed, ranging from 300 ug/L in February 2014, to 490 ug/L in August 2015, and then declining to 230 ug/l in August 2016; see Attachment D. The additionally sampled upgradient piezometers ranged in concentration from 0.41J ug/L at PZ-7 to 27 ug/L at PZ-1.

3.3.2.2. B-Zone

In the B-Zone, TCE was detected above the reporting limit in one of the four wells sampled, with a concentration of 2.6 ug/L at OW-4B (Table 7, Figure 15). Time series graphs are provided in Attachment D. A brief historical summary of TCE in the B-Zone follows:

- OW-1B: below 1 ug/L since 2010, compared to a historic high of approximately 11 ug/L in 1999;
- OW-3B: non-detect or below 1 ug/L since mid-2006 with exception during 2010 when concentrations of approximately 2 and 3 ug/L were measured;

- OW-4B: generally non-detect or below 1 ug/L since 2001 with intermittent exceptions in 2002 – 2004, and again in 2015 and 2016 when concentrations were observed to be between 1 and 30 ug/L; and
- OW-8B: non-detect or below 1 ug/L since 2005 except in 2015 when the concentration was measured at approximately 1.2 ug/L.

3.3.3. 1,4-DIOXANE

Concentrations of 1,4-Dioxane measured in A-Zone and B-zone wells during the third quarter 2016 are summarized below.

3.3.3.1. A-Zone

1,4-dioxane was detected in fourteen of the twenty A-zone wells sampled this period (Table 7, Figure 16), at concentrations ranging from 0.1 (J-) at EW-5, to 800 (J) ug/L at OW-9. The concentrations at down-gradient monitoring wells, and former source area monitoring wells are discussed below.

<u>Down-gradient Monitoring</u>

A summary of 1,4-Dioxane concentrations at the down gradient locations is as follows, and is shown in time series charts presented in Attachment D:

- OW-9 concentrations have generally remained consistent, ranging from 1,000 ug/L in March 2009, to a high of 1,600 ug/l in February 2011, to the most recent measurement of 800 (J) ug/l in August 2016.
- OW-10 concentrations have generally remained below the sample quantization-reporting limit since first sampled in 2009. In August 2016 the most recent measurement was 0.13 (J) ug/L.
- PZ-9 concentrations have generally remained consistent, ranging from 800 ug/L in August 2012, to a high of 1,100 (J) ug/l in March 2013, to the most recent measurement of 190 (J) ug/l in August 2016.

<u>Source Area Monitoring</u>

1,4 Dioxane concentrations in OW-1A, prior to it becoming dry, had declined from approximately 90,000 ug/l in 2003, to less than 100 ug/l in 2015. Concentrations of 1,4 Dioxane in OW-12 have ranged from 44 (B) ug/L in February 2014, to a high of 52 (J) ug/L in February 2015, and then

declining to 12 (J-) ug/l in August 2016; see Attachment D. The additionally sampled upgradient piezometers were all non-detect for 1,4-Dioxane.

3.3.3.2. B-Zone

In the B-Zone, 1,4-Dioxane was detected in three of the four wells sampled, with concentrations ranging from 0.14 (J-) ug/L in OW-4B to 2.6 (J-) ug/L in OW-1B (Table 7, Figure 17). Time series graphs are provided in Attachment D. A brief historical summary of 1,4-Dioxane in the B-Zone follows:

- OW-1B: below 10 ug/L since 2009, compared to a historic high of approximately 60 ug/L in 2002;
- OW-3B: non-detect or below 1 ug/L since 2006;
- OW-4B: generally between 1 ug/L and non-detect since 2001 except in 2004 when concentration was observed to be approximately 4 ug/L; and
- OW-8B: non-detect or below 1 ug/L since 2004.

3.4. HYDRAULIC CAPTURE

Hydraulic capture at the Site is analyzed using measured water levels, assisted by simulations from the groundwater model, and analysis of water quality trends from downgradient wells OW-9 and OW-10. The results of these analyses demonstrate the effectiveness of the hydraulic capture at the Site.

3.4.1. DEMONSTRATED BY MEASURED WATER LEVELS

An analysis of August 2016 water level contours was conducted by CDM; the results of this analysis are provided in Attachment G. In general, the results of the analysis show that the area covered by the cone of depression surrounding DPE-9 measured in August 2016 (Figure 9) is similar to that contoured most previously in May 2016 (Figure 10), although the magnitude of the current quarter gradients (as shown by the close spacing of the contour lines) at the DPE wells appears greater than in May 2016. This apparent increase in gradient is attributed to lower pumping water levels at DPE-3 and DPE-8 measured during the August monitoring event, compared to the pumping water levels measured in February. The August water level contours indicate the horizontal gradient of groundwater underlying the site is altered from its natural flow direction (toward the southwest), inward toward the center of the Phase 1a boundary, specifically centered around DPE-9, DPE-3 and DPE-8. The increased inward gradient measured in August 2016 indicates drawdown at DPE-3 and DPE-8 significantly benefits the

overall capture strategy. The overall altered flow direction (inward toward the center of the Phase 1a area) is evidence of hydraulic capture, in accordance with the established PSVP objectives.

Additional discussion regarding the water level contours related to hydraulic capture is provided in Attachment G. All previous quarterly updates to contoured water levels prepared during the annual reporting period are also provided in Attachment G.

3.4.2. SIMULATED FLOW

The groundwater model for the Omega Phase 1a area was updated by CDM Smith for this annual report (Attachment H). The model was extended in time from July 1 to August 16, 2016 by incorporating groundwater data collected since the last update (de maximis inc., 2015). The updated model was then used to assess hydraulic containment under August 2016 hydraulic and operating conditions. The extensive dewatering of the shallow zone aquifer has limited some aspects of the model usability, requiring modification to some simulation methodologies. These are discussed in detail in Attachment H.

The parameters revised during this model update include the chronological period of the model (extended through August 16, 2016), the number of stress periods, extraction well pumping rates, boundary head conditions, and rainfall recharge. Hydraulic properties assigned to the model were not changed during this update.

Calibration was checked by comparing measured and simulated water level data, generating residual distribution hydrographs. A significant difference in measured versus simulated head is noted at PZ-4. This is a recurring notable residual; the model typically underrepresents the measured head at this location, particularly during low water conditions. The cause of this discrepancy is unclear. Variation of model properties would likely not produce the required 5.9-foot head rise to match the data. Despite the variance observed at PZ-4, the overall model calibration fits the field data within acceptable criteria, and the model is useable for assessment of the system capture zone. The full presentation of the model update is presented Attachment H.

Following model calibration, an update to the simulated flow and capture visualization was completed; the results of the update and analysis are provided in Attachment H. The updated simulation used average pumping flow rates measured in August 2016 (measured synoptically with the groundwater level measurements) to create the visualization of simulated flow shown in Figure 18. This updated visualization of flow direction also shows simulated head contours and

the associated simulated capture zone that would be created by the GWTS if August 2016 conditions were held constant into perpetuity.

The current simulated capture zone covers the area between Putnam Street and the source area on the Omega property; no significant change in simulated conditions has been observed for this reporting period, despite the historically low pumping rates measured in August 2016 caused by drought conditions. The simulated flow shows continued hydraulic capture in accordance with the PSVP, except potentially in the area near PZ-4. However, as noted above, the variance between the measured and simulated head at the PZ-4 location should defer preference to the interpreted contours based on measured water levels (which indicate flow direction inward, toward the north and capture by DPE-9) over the model simulations in this localized area. Aside from this localized variance, the overall simulated flow direction supports the evidence for hydraulic capture, in accordance with the established PSVP objectives.

3.4.3. DEMONSTRATED BY WATER QUALITY TRENDS

In addition to demonstrating hydraulic capture through measured water levels assisted by simulated flow direction, water quality trends at OW-9 and OW-10 were evaluated using the Mann-Kendall trend analysis (Attachment I). The results of the Mann-Kendall analysis support a downward concentration trend for PCE, TCE, and 1, 4-Dioxane at wells OW-9 and OW-10. This is further evidence supporting the assessment that hydraulic capture is occurring along Putnam Street. It should be noted that the confidence level for trends at OW-9 are lower than at OW-10, but still within acceptable reporting ranges. The full report on the Mann-Kendall analysis is provided in Attachment I.

4. OBSERVATIONS AND RECOMMENDATIONS

This section briefly summarizes pertinent observations, and presents recommendations for modification(s), if required.

4.1. OBSERVATIONS

Generally, the GWTS operated efficiently and in accordance with expectations during this reporting period. Routine and non-routine equipment maintenance generated some non-operational conditions, but these periods were relatively short and did not affect the overall successful operations.

Extraction wells continued to show reduced production due to the overall depression of the water table in the vicinity of the Site. EW-1 through 5 pumped infrequently and intermittently throughout the reporting period, with EW-1 and EW-2 unable to produce water since March 2016. The pump-control settings for the pumps in EW-1, EW-2, and EW-3 are at operational limits; there is no further opportunity for optimizing groundwater extraction from these wells with current equipment and at current conditions. However, it is important to note that containment is being achieved given the current groundwater extraction operations, including the minimal and intermittent operation of these EWs. The DPE wells continue to be the primary producers of extracted groundwater, generating the majority of the hydraulic containment; DPE-9 is the primary contributor in this regard. The DPE well screen intervals are completed to depths of approximately 100 feet bgs. The DPE wells also expose the VOC-impacted capillary fringe to SVE. (Extracted vapor is sent to the OPOG full scale SVE systems; the SVE systems are described separately in quarterly Preliminary Operations Status Reports.) The DPE wells pull vapors and a limited amount of groundwater from the lower permeability materials that exist between 90 and 100 feet bgs. The analysis provided in Attachment G demonstrates that adequate hydraulic capture is being achieved by this combination of groundwater extraction and DPE wells.

The groundwater elevation memo and contour map provided in Attachment G show that water table depressions have formed due to pumping, with the primary center on DPE-9, and secondarily on DPE-3 and DPE-8. The cone of depression generated by the extraction and DPE wells extends approximately 75 feet down gradient from DPE-9. Water quality trends for VOC's continue to decline over time further demonstrating the effectiveness of the GWTS.

4.2. RECOMMENDATIONS

The GWTS is anticipated to continue normal operations into the fourth quarter 2016. GWTS sampling and data collection methods and frequencies will remain unchanged from the third quarter. The quarterly measurement of water levels will continue, and the sampling of observation wells and extraction wells for VOCs and 1,4-Dioxane will continue on a semi-annual basis, with the next semi-annual sampling schedule for February 2017.

To the extent feasible, pump depths in wells EW-4 and EW-5 will be lowered in the fourth quarter 2016 to increase water production from these wells. Increased flow rates from these wells will be helpful in assuring the capture along Putnam Street.

Pump-start depth settings in DPE wells will be assessed relative to the ongoing non-static declining potentiometric surface. An opportunity to increase the frequency of pump-operation, and thus increasing the average flow rate from the wells, may exist by more frequent downward adjustment of the pump-start depth setting. Extraction wells DPE-3 and DPE-8 will be the primary focus of this evaluation; maintaining and potentially increasing the drawdown at these locations will help retain the observed and simulated capture observed and discussed in this report.

5. REFERENCES

CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System, April 19.*

CDM. (2010). *Operations, Maintenance, and Montioring Manual, February 10.*

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TABLES

Table 1
GWTS Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Month	System Runtime Percent (%)[1]	System Runtime Hours (hrs)	Operational Flow Rate[2] (gpm)	Average Flow Rate[3] (gpm)	Total Gallons Processed (gal)	Mass Removed (lbs)
October 2015	98	730	6.7	6.6	293,360	2.3
November 2015	92	663	5.7	5.2	226,670	2.1
December 2015	100	743	5.5	5.5	247,000	2.3
January 2016	74	485	6.2	4.6	185,540	1.6
February 2016	93	634	4.6	4.3	180,000	1.5
March 2016	100	740	4.5	4.5	199,310	1.3
April 2016	100	717	3.7	3.7	160,500	1.4
May 2016	95	706	4.0	3.8	168,180	1.2
June 2016	100	719	2.9	2.9	124,890	0.9
July 2016	100	741	2.9	2.9	129,210	0.9
August 2016	100	743	2.8	2.8	125,470	0.8
September 2016	100	719	2.9	2.9	123,590	0.8
Annual	**Average = 96**	**Average = 695**	**Average = 4.4**	**Average = 4.1**	**Total = 2,163,720**	**Total = 17.1**

Notes:

1. System Runtime Percent is the percentage of total hours in the month that the system actually operated.
2. Operational flow rate calculated from total gallons processed in the month and hours the system actually operated in the month.
3. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of system uptime.

gpm = gallons per minute
hrs = hours
gal = gallons
lbs = pounds

Table 2
Extraction Well Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
EW-1	October 2015	0.20	29.0	2.42	0.0007	
	November 2015	0.50	123	4.10	0.003	
	December 2015	0.30	32.2	1.79	0.0007	
	January 2016	0.11	17.3	2.62	0.0004	
	February 2016	2.02	223	1.84	0.005	
	March 2016	0.08	3.60	0.75	0.0001	
	April 2016	0.06	5.24	1.45	0.0001	
	May 2016	0.19	25.6	2.24	0.0006	
	June 2016	0	0	0	0	
	July 2016	0.11	9.17	1.39	0.0002	
	August 2016	0.07	6.48	1.54	0.0001	
	September 2016	0.02	0.32	0.27	0.00001	
	Annual	3.66	475	1.70	0.001	0.004
EW-2	October 2015	646	102,733	2.65	2.30	
	November 2015	378	18,159	0.80	0.42	
	December 2015	124	5,968	0.80	0.13	
	January 2016	36.4	1,680	0.77	0.04	
	February 2016	83.4	4,205	0.84	0.10	
	March 2016	0[3]	0	0	0	
	April 2016	0	0	0	0	
	May 2016	0	0	0	0	
	June 2016	0	0	0	0	
	July 2016	0[3]	0	0	0	
	August 2016	0[3]	0	0	0	
	September 2016	0	0	0	0	
	Annual	1,267	132,744	0.49	0.25	1.08

Table 2
Extraction Well Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
EW-3	October 2015	3.90	1,057	4.52	0.02	
	November 2015	1.00	561	9.35	0.01	
	December 2015	0.30	46.2	2.57	0.001	
	January 2016	0.74	160	3.61	0.004	
	February 2016	5.40	754	2.33	0.02	
	March 2016	1.96	254	2.16	0.01	
	April 2016	0	0	0	0	
	May 2016	0.04	4.14	1.73	0.0001	
	June 2016	0	0	0	0	
	July 2016	0.05	2.08	0.69	0.00005	
	August 2016	0[3]	0	0	0	
	September 2016	0	0	0	0	
	Annual	13.4	2,839	2.25	0.01	0.02
EW-4	October 2015	4.00	1,195	4.98	0.03	
	November 2015	3.20	1,210	6.30	0.03	
	December 2015	2.10	1,006	7.98	0.02	
	January 2016	1.36	768	9.41	0.02	
	February 2016	1.61	629	6.51	0.02	
	March 2016	2.10	642	5.09	0.01	
	April 2016	20.4	430	0.35	0.01	
	May 2016	1.12	547	8.14	0.01	
	June 2016	1.05	384	6.10	0.01	
	July 2016	1.16	406	5.83	0.01	
	August 2016	1.51	433	4.78	0.01	
	September 2016	1.28	335	4.37	0.01	
	Annual	40.9	7,984	5.82	0.02	0.06

Table 2
Extraction Well Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
EW-5	October 2015	9.10	4,312	7.90	0.10	
	November 2015	15.0	7,880	8.76	0.18	
	December 2015	13.7	5,673	6.90	0.13	
	January 2016	7.94	3,884	8.15	0.09	
	February 2016	10.6	3,712	5.84	0.09	
	March 2016	11.2	4,044	6.03	0.09	
	April 2016	10.7	3,755	5.84	0.09	
	May 2016	10.3	4,458	7.25	0.10	
	June 2016	10.2	3,308	5.41	0.08	
	July 2016	11.0	3,582	5.44	0.08	
	August 2016	11.6	3,809	5.48	0.09	
	September 2016	11.7	3,893	5.54	0.09	
	Annual	133	52,308	6.54	0.10	0.41
DPE-3	October 2015	400	51,390	2.14	1.15	
	November 2015	270	30,563	1.89	0.71	
	December 2015	252	28,353	1.88	0.64	
	January 2016	145	19,531	2.24	0.44	
	February 2016	217	20,397	1.57	0.49	
	March 2016	348	32,903	1.57	0.74	
	April 2016	381	33,749	1.47	0.78	
	May 2016	105	11,573	1.84	0.26	
	June 2016	59.1	4,880	1.38	0.11	
	July 2016	24.2	2,065	1.42	0.05	
	August 2016	19.0	4,036	3.55	0.09	
	September 2016	16.5	3,576	3.62	0.08	
	Annual	2,238	243,017	2.05	0.46	1.98

Table 2
Extraction Well Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
DPE-4	October 2015	121	42,267	5.82	0.95	
	November 2015	28.7	9,442	5.48	0.22	
	December 2015	170	53,074	5.20	1.19	
	January 2016	72.7	22,630	5.19	0.51	
	February 2016	84.4	19,481	3.85	0.47	
	March 2016	133	32,032	4.02	0.72	
	April 2016	116	24,316	3.50	0.56	
	May 2016	189	41,625	3.66	0.93	
	June 2016	177	29,617	2.79	0.69	
	July 2016	173	30,205	2.91	0.68	
	August 2016	98.1	24,695	4.20	0.55	
	September 2016	104	26,813	4.30	0.62	
	Annual	1,467	356,197	4.24	0.67	2.74
DPE-5	October 2015	68.7	14,908	3.62	0.33	
	November 2015	148	38,917	4.37	0.90	
	December 2015	154	38,830	4.21	0.87	
	January 2016	101	28,996	4.81	0.65	
	February 2016	133	27,352	3.43	0.65	
	March 2016	143	30,686	3.59	0.69	
	April 2016	113	23,722	3.49	0.55	
	May 2016	109	28,648	4.37	0.64	
	June 2016	104	20,433	3.28	0.47	
	July 2016	107	21,274	3.32	0.48	
	August 2016	111	22,202	3.34	0.50	
	September 2016	110	22,552	3.42	0.52	
	Annual	1,400	318,520	3.77	0.60	2.51

Table 2
Extraction Well Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

		Pump Runtime (hrs)	Total Volume Extracted (gal)	Operational Flow Rate[1] (gpm)	Average Flow Rate[2] (gpm)	Mass Removed (lbs)
DPE-8	October 2015	56.0	15,175	4.52	0.34	
	November 2015	5.90	1,422	4.02	0.03	
	December 2015	19.8	4,511	3.80	0.10	
	January 2016	36.1	9,862	4.55	0.22	
	February 2016	43.4	8,408	3.23	0.20	
	March 2016	28.2	5,621	3.32	0.13	
	April 2016	13.1	2,458	3.12	0.06	
	May 2016	31.9	7,497	3.91	0.17	
	June 2016	28.5	5,061	2.96	0.12	
	July 2016	44.4	8,012	3.01	0.18	
	August 2016	64.2	11,645	3.02	0.26	
	September 2016	78.6	14,625	3.10	0.34	
	Annual	450	94,296	3.55	0.18	0.70
DPE-9	October 2015	278	60,295	3.61	1.35	
	November 2015	639	118,394	3.09	2.74	
	December 2015	569	109,507	3.21	2.45	
	January 2016	429	98,011	3.81	2.20	
	February 2016	588	94,840	2.69	2.27	
	March 2016	584	93,125	2.66	2.09	
	April 2016	468	72,064	2.57	1.67	
	May 2016	386	73,803	3.19	1.65	
	June 2016	427	61,207	2.39	1.42	
	July 2016	443	63,656	2.39	1.43	
	August 2016	351	58,644	2.79	1.31	
	September 2016	231	51,796	3.74	1.20	
	Annual	5,393	955,340	3.01	1.81	7.58

Notes:

1. Operational flow rate calculated from total gallons processed in the month and hours the pump actually operated in the month.

2. Average flow rate is calculated from total gallons processed in the month and total hours in the month, regardless of pump uptime.

3. Hour meter indicated the pump motor experienced short and intermittent periods of being energized, but the pump itself did not discharge.

All EWs and DPE wells operate on/off based on water levels measured by pressure transducers installed in each well.

hrs = hours **gal = gallons** **gpm = gallons per minute**

Table 3
Air Stripper Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Sample ID	Sample Date	PCE	TCE	MCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_102815	10/28/2015	670	47	13 U	4.7	15	84
OC_SP220B_EFF_102815	10/28/2015	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_111815	11/18/2015	740	65	20 U	5.8	22	190
OC_SP220B_EFF_111815	11/18/2015	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_121615	12/16/2015	860	52	25 U	5.4	16	91
OC_SP220B_EFF_121615	12/16/2015	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_012016	1/20/2016	800	47	10 U	5.3	17	75
OC_SP220B_EFF_012016	1/20/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_021716	2/17/2016	770	46	50 U	10 U	17	65
OC_SP220B_EFF_021716	2/17/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_031516	3/15/2016	590	36	50 U	4	8.2	94
OC_SP220B_EFF_031516	3/15/2016	1 U	1 U	5 U	1 U	1 U	5 U

Table 3
Air Stripper Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Sample ID	Sample Date	PCE	TCE	MCL	1,2-DCA	Freon 11	Freon 113
OC_SP210_INF_040516	4/5/2016	730	45	50 U	5.6	16	180
OC_SP220B_EFF_040516	4/5/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_051116	5/11/2016	620	31	10 U	4.3	12	130
OC_SP220B_EFF_051116	5/11/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_060716	6/7/2016	630	32	10 U	5.2	11	81
OC_SP220B_EFF_060716	6/7/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_070616	7/6/2016	650	32	50 U	7.5	11	74
OC_SP220B_EFF_070616	7/6/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_080316	8/3/2016	580	27	11	5.5	10	47
OC_SP220B_EFF_080316	8/3/2016	1 U	1 U	5 U	1 U	1 U	5 U
OC_SP210_INF_090716	9/8/2016	580	29	50 U	10 U	15	64
OC_SP220B_EFF_090716	9/8/2016	1 U	1 U	5 U	1 U	1 U	5 U

Notes:
INF = Air stripper influent water. Untreated water sample collected downstream of bag filters.
EFF = Air stripper effluent water. Treated water sample collected in discharge header upstream of SDLAC sample box.
SDLAC = Sanitation District of Los Angeles County
All results are in micrograms per liter (ug/L)
U = not detected above reporting limit listed
PCE = Tetrachloroethene; TCE = Trichloroethene; MCL = Methylene chloride; DCA = Dichloroethane

Table 4
Vapor Phase GAC Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

SCAQMD Limit (EFF)			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**1,1-DCA**	**1,2-DCA**	**BZ**	**MCL**	**VC**	**CFM**
OC_VGAC_INF_SP241_102815	10/28/2015	ppbv	79	8	0.52 U	1.2	0.87	5.2 U	0.52 U	3.9
OC_VGAC_INT_SP245_102815	10/28/2015	ppbv	0.56 U	0.56 U	0.93	0.56 U	0.56 U	5.6 U	0.56 U	6.5
OC_VGAC_EFF_SP242_102815	10/28/2015	ppbv	0.58 U	0.58 U	0.58 U	0.58 U	0.72	5.8 U	0.58 U	0.58 U
OC_VGAC_INF_SP241_111815	11/18/2015	ppbv	170	17	0.5 U	2.5	0.65	5 U	0.5 U	9.9
OC_VGAC_INT_SP245_111815	11/18/2015	ppbv	0.5 U	0.5 U	0.59	0.5 U	0.5 U	5 U	0.5 U	5
OC_VGAC_EFF_SP242_111815	11/18/2015	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U
OC_VGAC_INF_SP241_121615	12/16/2015	ppbv	97	9.3	0.5 U	1.3	0.5 U	5 U	0.5 U	6
OC_VGAC_INT_SP245_121615	12/16/2015	ppbv	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	5.8 U	0.58 U	4.8
OC_VGAC_EFF_SP242_121615	12/16/2015	ppbv	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	5.3 U	0.53 U	0.53 U
OC_VGAC_INF_SP241_012016	1/20/2016	ppbv	90	6.7	0.51 U	0.95	0.58	5.1 U	0.51 U	4.5
OC_VGAC_INT_SP245_012016	1/20/2016	ppbv	0.5 U	0.5 U	0.55	0.5 U	0.5 U	5 U	0.5 U	4.9
OC_VGAC_EFF_SP242_012016	1/20/2016	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.54	5 U	0.5 U	0.5 U
OC_VGAC_INF_SP241_021716	2/17/2016	ppbv	110	10	0.5 U	1.6	0.63	5 U	0.5 U	7.6
OC_VGAC_INT_SP245_021716	2/17/2016	ppbv	3.2	0.5 U	0.52	0.5 U	0.5 U	5 U	0.5 U	5.3
OC_VGAC_EFF_SP242_021716	2/17/2016	ppbv	0.51	0.5 U	0.5 U	0.5 U	0.53	5 U	0.5 U	0.5 U
OC_VGAC_INF_SP241_031516	3/15/2016	ppbv	140	9.7	0.5 U	1.5	0.58	5 U	0.5 U	6.7
OC_VGAC_INT_SP245_031516	3/15/2016	ppbv	0.5 U	0.5 U	0.5	0.5 U	0.5 U	5 U	0.5 U	5
OC_VGAC_EFF_SP242_031516	3/15/2016	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.51

Table 4
Vapor Phase GAC Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

SCAQMD Limit (EFF)			268.6	13.4	60	4.6	20	31.2	20	13
Sample ID	**Sample Date**	**Units**	**PCE**	**TCE**	**1,1-DCA**	**1,2-DCA**	**BZ**	**MCL**	**VC**	**CFM**
OC_VGAC_INF_SP241_040516	4/5/2016	ppbv	60	4.6	0.5 U	0.69	0.5 U	5 U	0.5 U	3.2
OC_VGAC_INT_SP245_040516	4/5/2016	ppbv	0.5 U	0.5 U	0.56	0.5 U	0.5 U	5 U	0.5 U	5.5
OC_VGAC_EFF_SP242_040516	4/5/2016	ppbv	0.5 U	0.5 U	0.63	0.5 U	0.5 U	5 U	0.5 U	0.78
OC_VGAC_INF_SP241_051116	5/11/2016	ppbv	82	6.2	0.5 U	1.1	0.5 U	5 U	0.5 U	3.2
OC_VGAC_INT_SP245_051116	5/11/2016	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	3.7
OC_VGAC_EFF_SP242_051116	5/11/2016	ppbv	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.97
OC_VGAC_INF_SP241_060716	6/7/2016	ppbv	59	3.7	0.53 U	0.7	0.53 U	5.3 U	0.53 U	2.9
OC_VGAC_INT_SP245_060716	6/7/2016	ppbv	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	5.9	0.58 U	4.3
OC_VGAC_EFF_SP242_060716	6/7/2016	ppbv	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	5.4 U	0.54 U	1.2
OC_VGAC_INF_SP241_070616	7/6/2016	ppbv	55	4.2	0.58 U	0.91	0.58 U	5.8 U	0.58 U	3.1
OC_VGAC_INT_SP245_070616	7/6/2016	ppbv	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	6.4 U	0.64 U	6.1
OC_VGAC_EFF_SP242_070616	7/6/2016	ppbv	1.1	0.5 U	0.56	0.5 U	0.5 U	5 U	0.5 U	1.6
OC_VGAC_INF_SP241_080316	8/3/2016	ppbv	65	5	0.52 U	1.1	0.52 U	5.2 U	0.52 U	4
OC_VGAC_INT_SP245_080316	8/3/2016	ppbv	0.54 U	0.54 U	0.54 U	0.54 U	0.54 U	10	0.54 U	6.5
OC_VGAC_EFF_SP242_080316	8/3/2016	ppbv	0.58 U	0.58 U	0.73	0.58 U	0.58 U	5.8 U	0.58 U	3.2
OC_VGAC_INF_SP241_090716	9/7/2016	ppbv	64	4.9	0.55 U	0.95	0.55 U	5.5 U	0.55 U	3.7
OC_VGAC_INT_SP245_090716	9/7/2016	ppbv	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	6.1 U	0.61 U	6.1
OC_VGAC_EFF_SP242_090716	9/7/2016	ppbv	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	6.6 U	0.66 U	2.5

All results are in parts per billion volume (ppbv)
INF = Vapor phase GAC influent. VOC-laden vapor sample collected at the influent to the lead vapor GAC unit.
INT = Vapor phase GAC intermediate. Partially treated vapor sample collected between the lead and lag vapor GAC units.
EFF = Vapor phase GAC effluent. Fully treated vapor sample collected at the effluent from lag (polishing) vapor GAC unit.
VGAC = vapor phase granular activated carbon
SCAQMD Limit = South Coast Air Quality Management District permitted concentration limit in ppbv
U = not detected above reporting limit listed
PCE = Tetrachloroethene; TCE = Trichloroethene; 1,1-DCA = 1,1-Dichloroethane; 1,2-DCA = 1,2-Dichloroethane;
BZ = Benzene; MCL = Methylene chloride; VC = Vinyl chloride; CFM = Chloroform

Table 5
Vapor Phase GAC Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)
10/7/2015	41.1	540	114.1	11.6	2.0	1.4	83	88
10/14/2015	42.1	537	115.0	11.0	4.7	2.9	57	74
10/21/2015	39.3	539	112.2	5.8	1.0	1.2	83	79
10/28/2015	35.5	627	113.7	12.3	0.0	0.0	100	100
11/4/2015	37.3	590	111.5	2.3	0.0	0.0	100	100
11/11/2015	36.8	580	107.1	3.0	0.2	0.0	93	100
11/18/2015	34.7	563	113.1	6.3	0.0	0.0	100	100
11/24/2015	37.1	571	106.0	0.9	0.0	0.0	100	100
12/3/2015	38.7	575	109.8	3.6	0.0	0.9	100	75
12/9/2015	42.8	536	109.4	1.6	0.5	0.4	69	75
12/16/2015	37.3	560	106.1	1.3	0.0	0.0	100	100
12/23/2015	50.8	538	103.2	10.8	0.3	1.1	97	90
12/30/2015	37.3	615	105.1	2.2	0.0	0.0	100	100
1/7/2016	34.0	564	102.7	1.5	0.6	0.7	60	53
1/13/2016	35.8	583	106.4	3.0	0.0	0.0	100	100
1/20/2016	45.5	585	104.1	2.3	0.2	0.1	91	96
2/3/2016	35.2	527	108.8	58.9	4.6	3.4	92	94
2/10/2016	47.0	566	104.2	2.2	0.0	0.0	100	100
2/17/2016	30.9	491	111.1	1.7	0.1	0.2	94	88
2/24/2016	38.2	650	107.1	3.4	1.8	1.8	47	47
3/2/2016	33.5	612	107.0	1.8	0.0	0.0	100	100
3/9/2016	31.6	605	109.7	3.7	1.0	1.1	73	70
3/15/2016	33.0	587	108.5	5.6	0.0	0.1	100	98
3/22/2016	33.0	619	107.6	4.0	0.2	0.3	95	93
3/29/2016	33.8	625	106.5	1.4	0.0	0.0	100	100
4/5/2016	32.0	654	110.9	4.6	0.0	0.0	100	100
4/13/2016	33.8	610	109.3	2.3	0.7	1.0	70	57
4/19/2016	32.7	615	112.0	3.5	0.6	0.6	83	83
4/27/2016	30.2	654	109.2	6.2	0.2	0.4	97	94

Table 5
Vapor Phase GAC Operational Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Date	Influent Vapor Relative Humidity (%)	Influent Vapor Flow Rate (SCFM)	Influent Vapor Temperature (°F)	Influent PID Measurement (ppmv)	Intermediate PID Measurement (ppmv)	Effluent PID Measurement (ppmv)	Lead VGAC Efficiency[1] (%)	Overall VGAC Efficiency[2] (%)
5/4/2016	31.3	613	108.1	2.5	0.0	0.0	100	100
5/11/2016	32.7	593	107.5	4.0	0.8	0.8	80	80
5/17/2016	33.9	616	108.5	7.3	0.0	0.0	100	100
5/25/2016	34.4	604	109.2	2.5	1.3	1.4	48	44
6/1/2016	33.3	614	108.4	2.5	0.0	0.0	100	100
6/7/2016	33.6	674	108.6	2.7	0.8	0.4	70	85
6/16/2016	32.0	653	109.3	1.3	0.5	0.4	62	69
6/22/2016	32.7	540	112.8	5.6	2.0	1.3	64	77
6/30/2016	32.3	594	117.4	3.9	1.3	0.9	67	77
7/6/2016	34.1	630	113.3	1.5	0.8	0.6	47	60
7/12/2016	33.7	627	113.8	2.4	0.5	0.2	79	92
7/20/2016	32.6	596	116.4	4.4	0.7	0.0	84	100
7/27/2016	31.8	572	121.8	7.3	2.6	1.4	64	81
8/3/2016[3]	31.3	611	113.6	*5.3*	*1.9*	*1.3*	64	75
8/10/2016[3]	35.1	623	111.1	*0.0*	*0.0*	*0.0*	100	100
8/17/2016[3]	34.3	619	109.0	*0.0*	*0.0*	*0.0*	100	100
8/22/2016[3]	34.1	627	113.2	*0.1*	*0.0*	*0.0*	100	100
9/7/2016[3]	34.5	572	114.5	*0.0*	*0.0*	*0.0*	100	100
9/14/2016	35.4	544	110.7	1.3	0.7	0.6	46	54
9/21/2016	31.3	409	115.8	2.5	1.2	1.0	52	60
9/29/2016	37.3	319	121.7	0.8	0.3	0.2	61	79
Annual	**35.5**	**583**	**110.3**	**4.7**	**0.7**	**0.6**	**86**	**88**

Notes:

°F = degrees Fahrenheight
SCFM = Standard Cubic Feet per Minute
PID = photoionization detector
VGAC = vapor phase granular activated carbon
ppmv = parts per million by volume
-- = Not measured

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. Influent PID measurements collected during these periods are suspect. Analytical data from the same period are used for determining compliance. New PID equipment and calibration gas has since been acquired.

Table 6
Groundwater Elevation Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well No.	Zone	Top of Casing Elevation (feet MSL)	Screen Interval (feet btoc)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
EW-1	A	199.12	72 - 87	11/30/15	85.30	113.82
				02/08/16	85.57	113.55
				05/25/16	85.55	113.57
				08/18/16	85.11	114.01
EW-2	A	198.04	72 - 87	11/30/15	83.40	114.64
				02/08/16	83.80	114.24
				05/25/16	84.35	113.69
				08/18/16	84.38	113.66
EW-3	A	196.94	70 - 85	11/30/15	81.60	115.34
				02/08/16	82.47	114.47
				05/25/16	82.58	114.36
				08/18/16	82.68	114.26
EW-4	A	195.79	71 - 86	11/30/15	79.40	116.39
				02/08/16	80.55	115.24
				05/25/16	79.99	115.80
				08/18/16	80.40	115.39
EW-5	A	194.37	70 - 85	11/30/15	60.50	133.87
				02/08/16	79.41	114.96
				05/25/16	78.76	115.61
				08/18/16	79.27	115.10
PZ-1	A	200.26	68 - 88	--	--	--
				02/11/16	86.12	114.14
				05/25/16	86.49	113.77
				08/19/16	86.60	113.66
PZ-2	A	201.51	64 - 84	--	--	--
				02/11/16	Dry	Dry
				05/25/16	Dry	Dry
				08/19/16	Dry	Dry
PZ-3	A	203.81	69.8 - 89.8	--	--	--
				02/10/16	88.46	115.35
				05/25/16	89.10	114.71
				08/18/16	Dry	Dry
PZ-4	A	196.1	70 - 90	--	--	--
				02/11/16	72.35	123.75
				05/25/16	73.21	122.89
				08/19/16	72.32	123.78
PZ-5	A	211.08	83 - 98	--	--	--
				02/10/16	89.50	121.58
				05/25/16	90.50	120.58
				08/19/16	90.23	120.85

Table 6
Groundwater Elevation Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well No.	Zone	Top of Casing Elevation (feet MSL)	Screen Interval (feet btoc)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
PZ-6	A	210.51	83 - 98	--	--	--
				02/10/16	89.02	121.49
				05/25/16	89.55	120.96
				08/19/16	89.30	121.21
PZ-7	A	211.06	86 - 101	--	--	--
				02/10/16	91.55	119.51
				05/25/16	92.09	118.97
				08/19/16	92.04	119.02
PZ-8	A	211.53	86 - 101	--	--	--
				02/10/16	91.27	120.26
				05/25/16	91.88	119.65
				08/19/16	91.80	119.73
PZ-9	A	195.75	70 - 90	--	--	--
				02/10/16	83.81	111.94
				05/25/16	84.32	111.43
				08/19/16	84.44	111.31
OW1A	A	212.52	62.5 - 77.5	--	--	--
				02/08/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW1B	B	207.2	110 - 120	--	--	--
				02/08/16	96.03	111.17
				05/25/16	95.61	111.59
				08/17/16	96.24	110.96
OW2	A	202.32	60 - 80	--	--	--
				02/09/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW3A	A	198.55	63 - 83	--	--	--
				02/09/16	Dry[1]	Dry
				05/25/16	81.60	116.95
				08/18/16	81.60	116.95
OW3B	B	197.08	112 - 122	--	--	--
				02/09/16	97.73	99.35
				05/25/16	96.48	100.60
				08/18/16	97.41	99.67
OW4A	A	184.69	49.8 - 69.8	--	--	--
				02/09/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry

Table 6
Groundwater Elevation Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well No.	Zone	Top of Casing Elevation (feet MSL)	Screen Interval (feet btoc)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
OW4B	B	184.44	112 - 122.3	--	--	--
				02/09/16	85.52	98.92
				05/25/16	84.40	100.04
				08/18/16	85.31	99.13
OW5	A	154.18	30 - 50	--	--	--
				02/09/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW6	A	172.76	38 - 58	--	--	--
				02/09/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW7	A	214.27	70.9 - 90.9	--	--	--
				02/09/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW8A	A	200.64	60.4 - 80	--	--	--
				02/10/16	Dry	Dry
				05/25/16	Dry	Dry
				08/16/16	Dry	Dry
OW8B	B	200.87	116 - 126	--	--	--
				02/10/16	100.97	99.90
				05/25/16	99.70	101.17
				08/18/16	100.67	100.20
OW9	A	197.92	70 - 90	--	--	--
				02/10/16	84.46	113.46
				05/25/16	85.27	112.65
				08/19/16	85.57	112.35
OW10	A	195.39	69.5 - 89.5	--	--	--
				02/11/16	77.00	118.39
				05/25/16	78.44	116.95
				08/19/16	78.66	116.73
OW11	A	200.06	80 - 100	--	--	--
				02/11/16	86.03	114.03
				05/25/16	86.82	113.24
				08/19/16	87.12	112.94
OW12	A	208.42	80 - 100	--	--	--
				02/09/16	89.51	118.91
				05/25/16	90.15	118.27
				08/17/16	89.96	118.46

Table 6
Groundwater Elevation Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well No.	Zone	Top of Casing Elevation (feet MSL)	Screen Interval (feet btoc)	Date	Depth To Water (feet btoc)	Groundwater Elevation (feet MSL)
DPE-3	A	206.76	40 - 100	11/30/15	88.10	118.66
				02/08/16	87.75	119.01
				05/25/16	90.73	116.03
				08/17/16	87.45	119.31
DPE-4	A	202.97	40 - 100	11/30/15	86.60	116.37
				02/08/16	87.15	115.82
				05/25/16	89.70	113.27
				08/17/16	86.67	116.30
DPE-5	A	201.77	40 - 100	11/30/15	87.50	114.27
				02/08/16	87.45	114.32
				05/25/16	86.12	115.65
				08/17/16	87.98	113.79
DPE-8	A	204.87	40 - 100	11/30/15	84.80	120.07
				02/08/16	88.08	116.79
				05/25/16	86.17	118.70
				08/17/16	89.84	115.03
DPE-9	A	199.06	40 - 100	11/30/15	88.40	110.66
				02/08/16	87.78	111.28
				05/25/16	87.30	111.76
				08/18/16	89.13	109.93

Notes:
1. Sediment accumulation in bottom of well prevented accurate measurement
Elevation data per California Coordinate System NADV88
Zone A (shallow) = screened depths ranging from approximately 30 to 100 feet btoc
Zone B (deep) = screened depths generally below 110 feet btoc
MSL = mean sea level
btoc = below top of casing
Dry = No water detected, water detected below the screen interval, or water detected at or near total depth of well
-- = not measured

Table 7
Groundwater Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well ID / Screen Interval[1]	Sample Date	Sample Type	PCE	TCE	1,4DIOX	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
EW-1 (72 - 87)	2/8/2016	ORIG	42	12 J+	0.52 UJ	0.5 U	4.5	0.5 U	3.4	1	1 U
	8/18/2016	ORIG	220	20	23 J-	1.0 U	14	2.2	20	4.6	1.0 U
EW-2 (72 - 87)	2/9/2016	ORIG	350	34	72 J-	0.5 U	22	6.1	31	10	1 U
	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
EW-3 (70 - 85)	2/8/2016	ORIG	130	23 J+	0.54 UJ	0.5 U	120	0.5 U	120	69	1 U
	8/18/2016	ORIG	160	20	0.47 J-	1.0 U	85	1.0 U	67	34	1.0 U
EW-4 (71 - 86)	2/8/2016	ORIG	29 J+	3.5 J+	0.52 UJ	0.5 U	32	0.5 U	16	10	1 U
	8/18/2016	ORIG	43	4.7	0.22 J-	1.0 U	46	1.0 U	26	13	1.0 U
EW-5 (70 - 85)	2/8/2016	ORIG	25 J+	3.4 J+	0.12 J-	0.5 U	36	0.5 U	79	58	1 U
	8/18/2016	ORIG	20	2.6	0.10 J-	1.0 U	23	1.0 U	69	41	1.0 U
PZ-1 (68 - 88)	9/15/2016	ORIG	420 J	27	--	1.0 U	60	0.96 J	27	15	1.0 UJ
PZ-2 (64 - 84)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
PZ-3 (69.8 - 89.8)	2/11/2016	ORIG	61 J+	26	--	1.0 U	28	0.50 U	5.1 J-	3.4 J	1.0 UJ
	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
PZ-4 (70 - 90)	9/14/2016	ORIG	40 J	4.8	0.53 UJ	1.0 U	48	1.0 U	26	13	1.0 UJ
PZ-5 (83 - 98)	9/15/2016	ORIG	9.9 J	1.0 U	0.49 UJ	1.0 U	1.0 U	1.0 U	1.7 J	0.96 J	1.0 UJ
	9/15/2016	DUP	7.0 J	1.0 U	0.48 UJ	1.0 U	1.0 U	1.0 U	0.78 J	0.49 J	1.0 UJ
PZ-6 (83 - 98)	9/15/2016	ORIG	15 J	1.0 U	0.49 UJ	1.0 U	1.0 U	1.0 U	5.0 U	0.37 J	1.0 UJ
PZ-7 (86 - 101)	9/14/2016	ORIG	9.3 J	0.41 J	0.53 U	1.0 U	1.0 U	1.0 U	9.8	4.2	1.0 UJ
PZ-8 (86 - 101)	9/14/2016	ORIG	8.9 J	1.0 U	0.53 UJ	1.0 U	1.0 U	1.0 U	2.6 J	2.0	1.0 UJ
PZ-9 (70 - 90)	2/10/2016	ORIG	3600 J	230	560	20 U	390	46	360	110 J	20 UJ
	8/19/2016	ORIG	3000	190	190 J	10 U	290	51	280 J-	96	10 U
OW1A (62.5 - 77.5)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW1B (110 - 120)	2/9/2016	ORIG	6.3 J+	0.31 J+	1.1 J-	0.5 U	0.5 U	0.5 U	8.8	5	1 U
	8/17/2016	ORIG	5.6	1.0 U	2.6 J-	1.0 U	1.0 U	1.0 U	16	8.3	1.0 UJ
OW2 (60 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW3A (63 - 83)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW3B (112 - 122)	2/9/2016	ORIG	7.2	0.9	0.51 UJ	0.5 U	0.5 U	0.5 U	1.5	0.5 U	1 U
	2/9/2016	DUP	6.5	1	0.53 UJ	0.5 U	0.5 U	0.5 U	1.1	0.5 U	1 U
	8/18/2016	ORIG	4.6	1.0 U	0.48 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
	8/18/2016	DUP	4.8	1.0 U	0.47 UJ	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
OW4A (49.8 - 69.8)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW4B (112 - 122.3)	2/9/2016	ORIG	6	1.9	0.51 UJ	0.5 U	3	0.55	11	0.72	1 U
	8/18/2016	ORIG	8.8	2.6	0.14 J-	1.0 U	3.8	0.53 J	9.3	0.59 J	1.0 U
OW5 (30 - 50)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW6 (38 - 58)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW7 (70.9 - 90.9)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
OW8A (60.4 - 80)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry

Table 7
Groundwater Analytical Summary
Omega Chemical Superfund Site
October 2015 - September 2016

Well ID / Screen Interval[1]	Sample Date	Sample Type	PCE	TCE	1,4DIOX	1,1,1-TCA	1,1-DCE	1,2-DCA	Freon 113	Freon 11	Freon 12
OW8B (116 - 126)	2/10/2016	ORIG	13 J	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	10 U	10 U	1.0 UJ
	2/10/2016	DUP	6.5 J	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	10 U	10 U	1.0 UJ
	8/18/2016	ORIG	22	1.0 U	0.16 J-	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U
OW9 (70 - 90)	2/11/2016	ORIG	5200 J+	280	1300	50 U	320	120	130 J-	500 U	50 UJ
	8/19/2016	ORIG	8100	340	800 J	40 U	480	150	250 J-	110	40 U
OW10 (69.5 - 89.5)	2/11/2016	ORIG	27 J+	2.6	1.0 U	1.0 U	7.8	0.50 U	4.3 J-	3.9 J	1.0 UJ
	8/19/2016	ORIG	19	1.2	0.13 J	1.0 U	10	1.0 U	3.9 J-	2.6	1.0 U
OW11 (80 - 100)	2/11/2016	ORIG	170 J+	41	1.0 U	1.0 U	46	0.50 U	60 J-	20	1.0 UJ
	8/19/2016	ORIG	150	38	0.92 J	1.0 U	30	1.0 U	57 J-	19	1.0 U
	8/19/2016	DUP	160	41	0.21 J	1.0 U	30	1.0 U	61 J-	20	1.0 U
OW12 (80 - 100)	2/9/2016	ORIG	2700	370	11 J-	100	280	50 U	3500	130	100 U
	8/17/2016	ORIG	2300	230	12 J-	44	140	5.9 J	2200	65	10 UJ
	8/17/2016	DUP	2400	240	13 J-	44	140	7.1 J	2300	65	10 UJ
DPE-3 (40 - 100)	2/8/2016	ORIG	420	35 J+	9.0 J-	5.2	21	6.2	270	18	1 U
	8/17/2016	ORIG	510	17	24 J-	1.2	8.2	4.7	130	9.0	1.0 UJ
DPE-4 (40 - 100)	2/8/2016	ORIG	750	60	52 J-	1.3	34	9.6	220	21	1 U
	8/17/2016	ORIG	1300	47	85 J-	2.5 U	15	12	150	7.9	2.5 UJ
DPE-5 (40 - 100)	2/8/2016	ORIG	300	38	2.2 J-	0.5 U	140	0.44 J	30	24	1 U
	8/17/2016	ORIG	240	21	5.5 J-	1.0 U	53	0.42 J	14	8.9	1.0 UJ
DPE-8 (40 - 100)	2/8/2016	ORIG	35	8.9 J+	3.6 J-	0.5 U	5.8	0.32 J	3.4	2.5	1 U
	8/17/2016	ORIG	47	5.2	5.8 J-	1.0 U	2.7	1.0 U	2.9 J	2.3	1.0 UJ
DPE-9 (40 - 100)	2/8/2016	ORIG	740	54	43 J-	0.2 J	65	9.2	69	21	1 U
	8/18/2016	ORIG	580	35	40 J-	1.0 U	36	6.4	33	9.9	1.0 U

Notes:

1. The screen interval units are feet below top of casing.

All results are in micrograms per liter (ug/L)

U = not detected above reporting limit listed

J = results are qualified as estimated

UJ = not detected above reporting limit listed and reporting limit is qualified as estimated

J+ = result is an estimated quantity, but may be biased high. See data validation report in Attachment F.

J- = result is an estimated quantity, but may be biased low. See data validation report in Attachment F.

PCE = Tetrachloroethene; TCE = Trichloroethene; TCA = Trichloroethane; DCE = Dichloroethene;

Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane; Freon 11 = Trichlorofluoromethane;

Freon 12 = Dichlorodifluoromethane; DCA = Dichloroethane; 1,4DIOX = 1,4-dioxane

ORIG = primary sample

DUP = duplicate sample

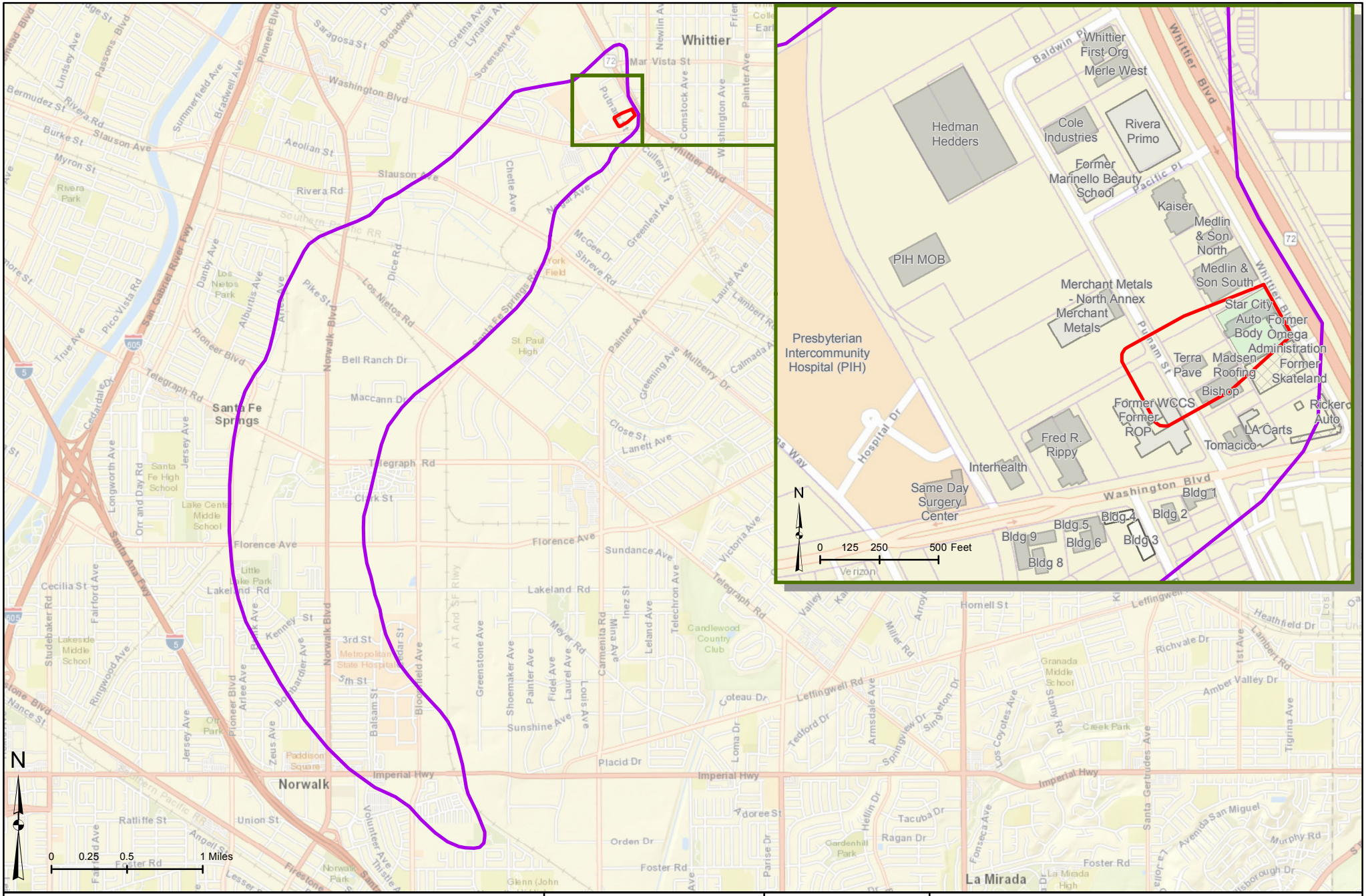
Dry = No water detected, water detected below the screen interval, or insufficient water to sample

-- = not analyzed

Table 8
Data Quality Assessment
Omega Chemical Superfund Site
Third Quarter 2016

Sampling Event	Sampling Rationale	Frequency of Analysis	Matrix	Lab WO#	Sampling Date	Field Quality Control Samples	Level 4 Validation	Review of Laboratory QC Samples	Data Usability
SDLAC Quarterly Sampling									
Q3	Quarterly sampling of the treatment plant effluent is required per Los Angeles Count Sanitation District Industrial Waste Discharge Permit Number 20039	Quarterly	Water	156057	8/17-18/2016	Equipment blanks are not needed as sampling equipment is not used. Trip blanks and field duplicates are not needed for this compliance sampling.	No	MB, LCS/LCSD, MS/MSD, surrogates	Results for pH and dissolved Sulfide are qualified as estimated (J,UJ). These parameters are 'analyze immediately' parameters. Field measurements should be used. The result for 1,4-dioxane in Grab was qualified estimated and may be biased low (J-) due to the low recovery of the surrogate.
GWTS Process Sampling									
SCAQMD Compliance									
Q3	Sampling of the influent, intermediate, and effluent sample ports of the VPGAC vessels is required monthly for the SCAQMD permit.	Monthly	Air	0258	7/6/2016	Equipment blanks are not needed as sampling equipment is not used to collect the vapor samples. Trip blanks are not typically submitted with Summa canisters. Field duplicates are not needed for this compliance sampling.	No	MB, LCS/LCSD, surrogates	The TVOC results in all three samples were qualified as estimated (J) due to the inclusion of the RL for compounds that were reported as not detected. No other qualification of sample results was warranted.
				0224	8/3/2016				The TVOC results in all three samples were qualified as estimated (J) due to the inclusion of the RL for compounds that were reported as not detected. No other qualification of sample results was warranted.
				0408	9/7/2016				The TVOC results in all three samples were qualified as estimated (J) due to the inclusion of the RL for compounds that were reported as not detected. No other qualification of sample results was warranted.
Q3	Analysis of the influent and effluent samples (before and after the air stripper) from the GWTS are needed to assess the performance of the treatment equipment.	Monthly (monthly for the first year of operation for the influent sample, frequency may change after 1st year); monthly for effluent sample	Water	151983	7/6/2016	Equipment blanks are not needed as no sampling equipment is used to collect these samples from the sample ports. Field duplicates are not needed for this treatment assessment sampling. Trip blanks were analyzed with these samples and all trip blank results were nondetect.	No	MB, LCS/LCSD, MS/MSD, surrogates	The result for 1,4-dioxane in OC_SP220B_EFF_070616 was qualified estimated and may be biased low (J-) due to the low recovery of the surrogate.
				154440	8/3/2016				The result for 1,4-dioxane in OC_SP220B_EFF_080316 was qualified estimated and may be biased low (J-) due to the low recovery of the surrogate. The result for methylene chloride in OC_SP210_INF_080316 was qualified as not detected (U) at the reported concentration due to method blank contamination.
				157652	9/7/2016				The result for 1,4-dioxane in OC_SP220B_EFF_090716 was qualified estimated and may be biased low (J-) due to the low recovery of the surrogate.

FIGURES



OU1 Boundary

OU2 Boundary

Former Omega Chemical Property Boundary

Building Occupancy

Occupied

Vacant

Demolished

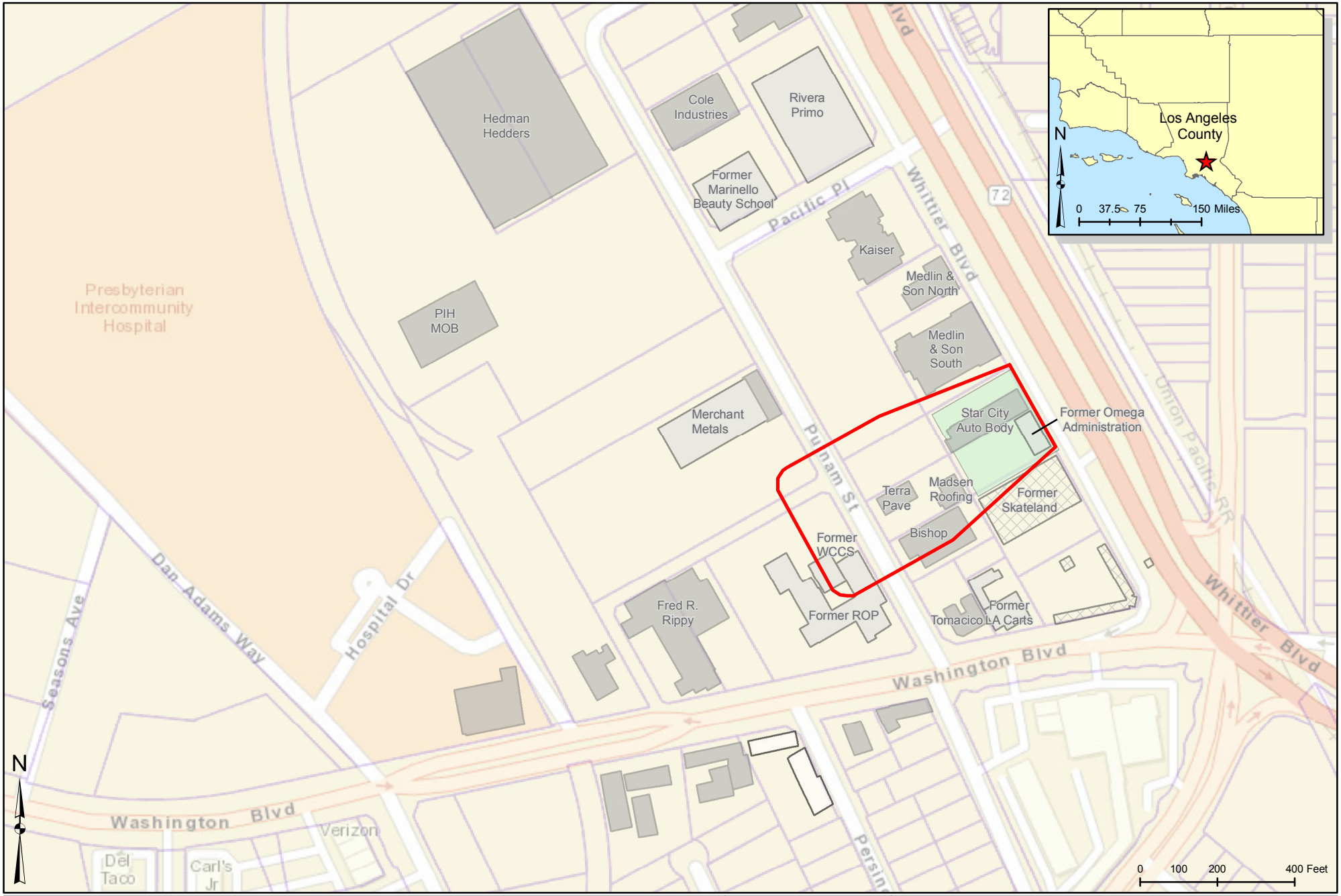
Unknown

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/6/2016

Figure 1
OU1 and OU2 Boundaries
OMEGA CHEMICAL SUPERFUND SITE
12504/12512 East Whittier Boulevard
Whittier, California



OU1 Boundary

Former Omega Chemical Property Boundary

Building Occupancy

- Occupied
- Vacant
- Demolished
- Unknown

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 7/1/2016

Figure 2
Site Location Map
OMEGA CHEMICAL SUPERFUND SITE
12504/12512 East Whittier Boulevard
Whittier, California

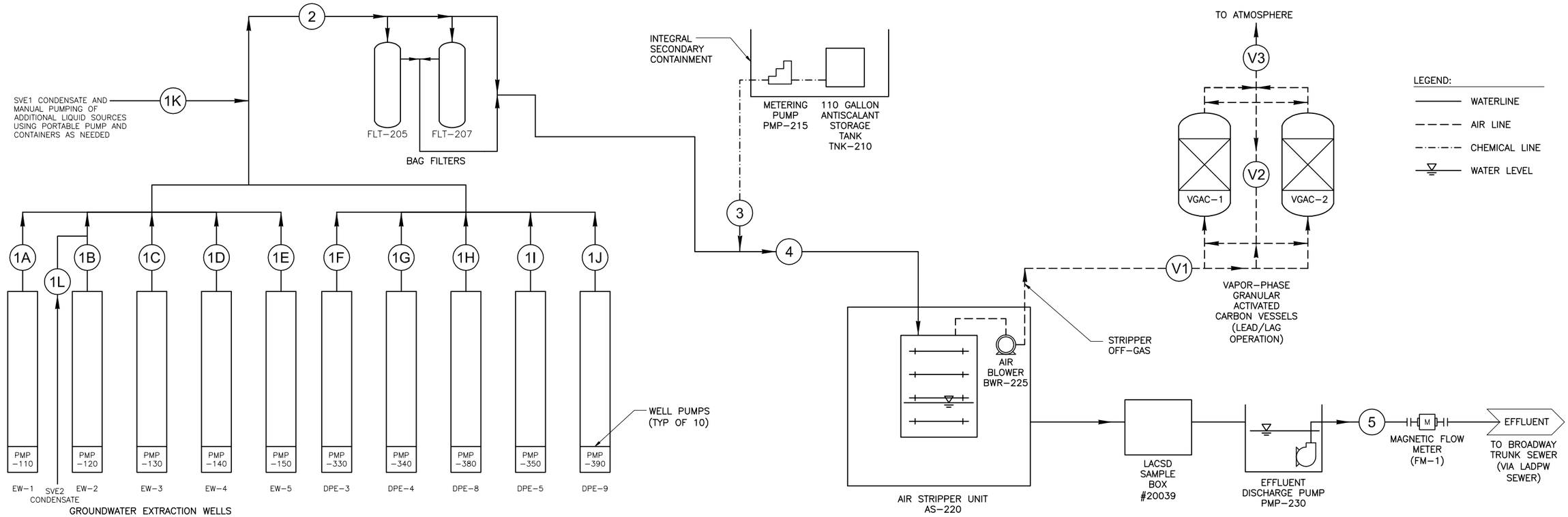
Extraction Well
Dual Phase Extraction Well
OU1 Boundary
Former Omega Chemical Property Boundary
GWTS and Conveyance Piping
Dual Phase Extraction Well Conveyance Piping
GWTS Compound Location

Not all building names shown for clarity. See Figure 2 for additional building information.

ddms
de maximis, inc.

Reviewed By: JLD
Drawn By: LEM
Date: 7/1/2016

Figure 3
Groundwater Treatment System Location
OMEGA CHEMICAL SUPERFUND SITE
12504/12512 East Whittier Boulevard
Whittier, California



LIQUID MASS BALANCE

Node		1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	2	3	4	5
Description		EW-1	EW-2	EW-3	EW-4	EW-5	DPE-3	DPE-4	DPE-8	DPE-5	DPE-9	SVE1 Condensate	SVE2 Condensate	Groundwater Influent (Raw)	Chemical Injection	Inlet to Air Stripper	Treated Effluent (Discharge)
Operating Limits and Conditions																	
Flow Rate for liquid (gpm)	Low	10	10	5	1.2	1.2	1	1	1	1	1	0	0	0	0 gpd	0	0
	High	20	20	14	7	7	3.6	3.6	3.6	3.6	3.6	<1	<1	60	3 gpd	60	60
	Setpoint	5	9	-	-	-	TBD	TBD	TBD	TBD	TBD	-	-	n/a	0.76 gpd	n/a	n/a
	Operating	16	13	8	2	2	TBD	TBD	TBD	TBD	TBD	<1	<1	41	0.76 gpd	41	41
Pressure for liquid (psig)	High	87	78	147	147	147	65	65	65	65	65	30	30	30	100	20	33
	Low	0	0	0	0	0	0	0	0	0	0	15	15	15	50	5	5
	Setpoint	30	30	30	30	30	TBD	TBD	TBD	TBD	TBD	30	30	30	-	-	-
	Operating	15	15	15	15	15	TBD	TBD	TBD	TBD	TBD	5	5	5	?	1	5
Temperature (deg F) for liquid (psig)	High	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Low	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Setpoint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Operating	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

VAPOR MASS BALANCE

Node		V1	V2	V3
Description		Vapor Inlet	Vapor Intermediate	Vapor Exhaust
Operating Limits and Conditions				
Flow Rate for vapor (scfm)	Low	0	0	0
	High	1000	1000	1000
	Setpoint	600	600	600
	Operating	585	585	585
Pressure for vapor (wc)	High	41	10	5
	Low	15	5	1
	Setpoint	-	-	-
	Operating	15	10	5
Temperature for vapor (deg F)	High	140	140	140
	Low	100	100	100
	Setpoint	n/a	n/a	140
	Operating	110	120	130

RECORD DRAWING

THIS RECORD DRAWING HAS BEEN PREPARED BASED ON A COMBINATION OF INFORMATION PROVIDED BY OTHERS AND BY CDM Smith. THE ENGINEER HAS NOT VERIFIED THE ACCURACY OF ALL THE INFORMATION. TO THE BEST OF THE ENGINEER'S BELIEF AND KNOWLEDGE, THE INCLUDED RECORD INFORMATION IS REASONABLY ACCURATE.

By MIKE GOH Date AUGUST 2015

CDM Smith

REV. NO.	DATE	DRWN	CHKD	REMARKS
5	08/16	PJR	MTG	RECORD DRAWING (MODIFIED FOR FULL-SCALE SYSTEM)
4	10/2/09	MTG	MTG	RECORD DRAWING (ORIGINAL SET)
3	1/7/08	PJR	SHA	ISSUED FOR CONSTRUCTION
2	10/12/07	PJR	SHA	ISSUED FOR CITY PLAN CHECK
1	9/07	AT	RS	SUBMITTED FOR PLAN CHECK AND BIDDING
0	8/07	AT	RS	SUBMITTED FOR PLAN CHECK AND BIDDING

DESIGNED BY: K. SCHWARZ
DRAWN BY: S. NGUYEN
SHEET CHK'D BY: D. DY
CROSS CHK'D BY: A. SHAWWA
APPROVED BY: R. SUBRAMANIAN
DATE: JULY 2015

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OMEGA CHEMICAL SUPERFUND SITE
12504 / 12512 EAST WHITTIER BOULEVARD
12471 WASHINGTON BOULEVARD
WHITTIER, CALIFORNIA

GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

PROJECT NO. 10500-97768
FILE NAME: FIGURE-3.dwg
SHEET NO.
FIGURE-4

pw:\\docpwapp1-PW_XM1\Documents\10500\97768\04 Design Services NM_305\01 General\10 CADD\01 Working\2015 RECORD DWGS (GWTS & SVE)\GWTS SYSTEM (RECORD DRAWINGS)\FIGURE-3.dwg
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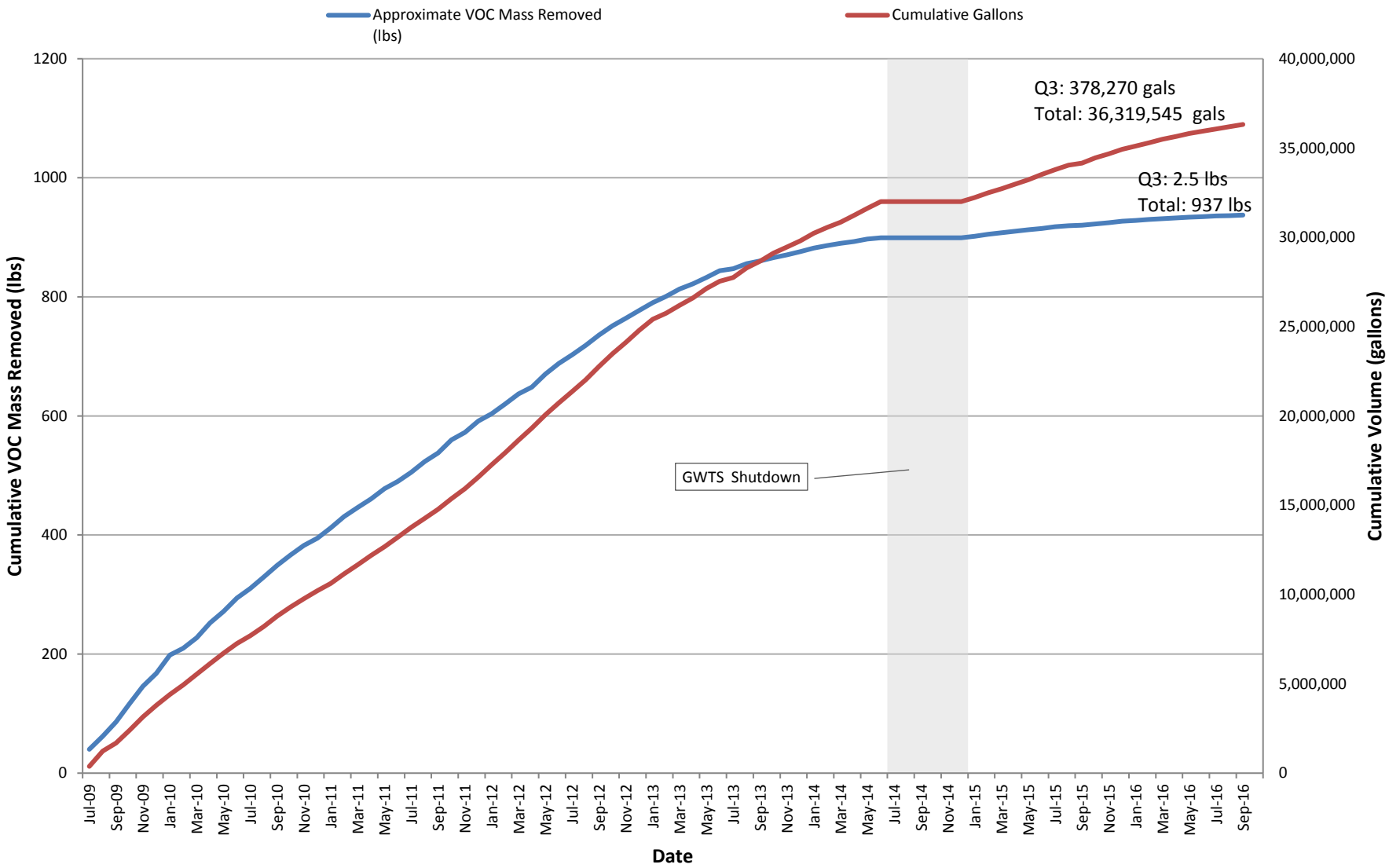
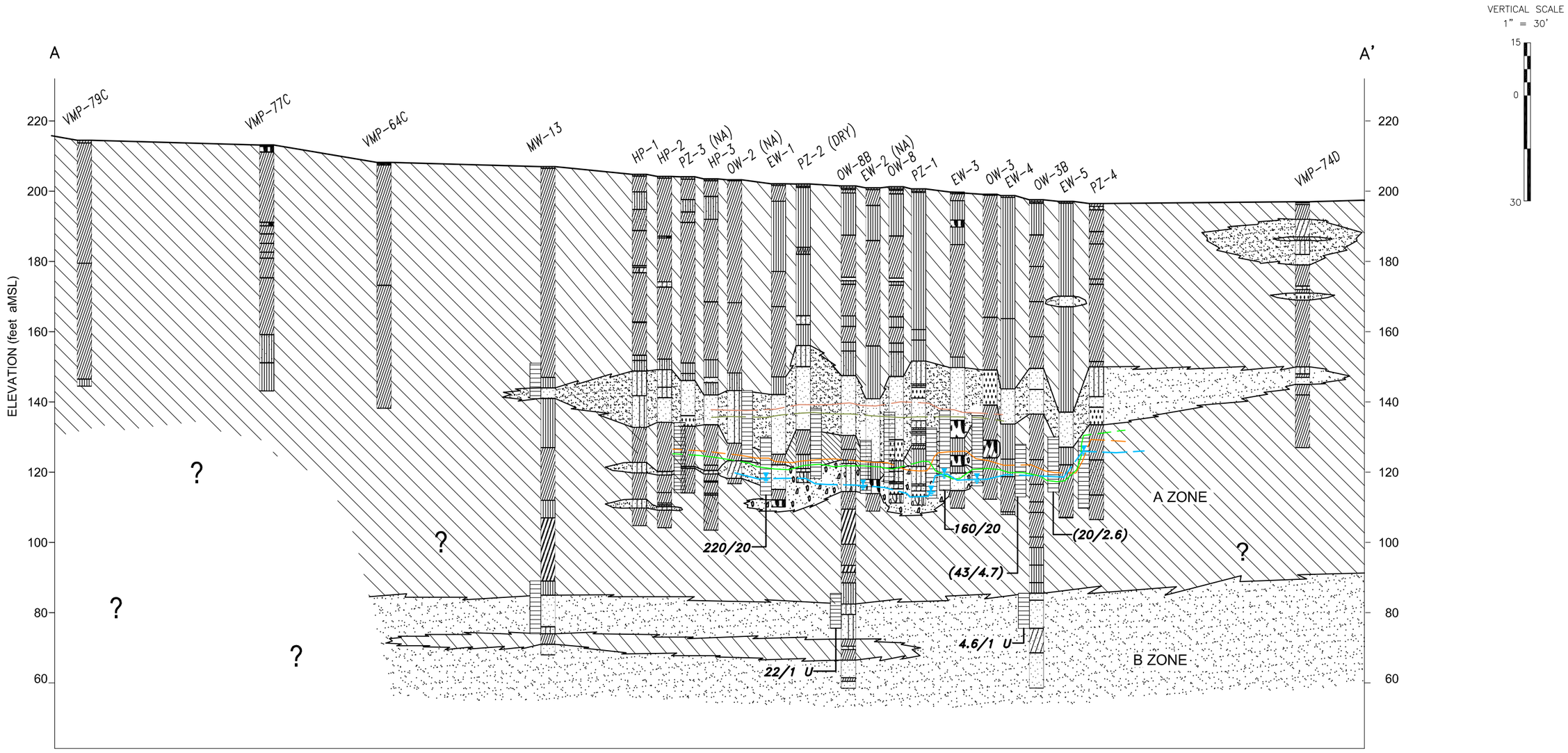
Figure 5
Cumulative VOC Mass Removed (lbs)
Omega Chemical Superfund Site





LEGEND

Gravel	Clay	Silt	Gravelly Sand	Clayey Silt or Silty Clay
Gravelly Clay	Poorly Graded Sand		Silty Sand	Well Screen
Clayey Gravel	Well Graded Sand		Clayey Sand	Water Level

U - Not detected at detection limit
aMSL - above Mean Sea Level
NA - Not analyzed
PCE / TCE Groundwater Concentration (µg/L)(Aug 2016)

Groundwater Elevation (Aug 2001)
Groundwater Elevation (Aug 2005)
Groundwater Elevation (Sep 2009)
Groundwater Elevation (Sep 2012)
Groundwater Elevation (Aug 2016)

GROUNDWATER

CDM Smith
111 Academy, Suite 150
Irvine, California 92617
Tel (949) 752-5452
Fax (949) 725-3790

OMEGA
LITHOLOGIC CROSS-SECTION
A TO A'

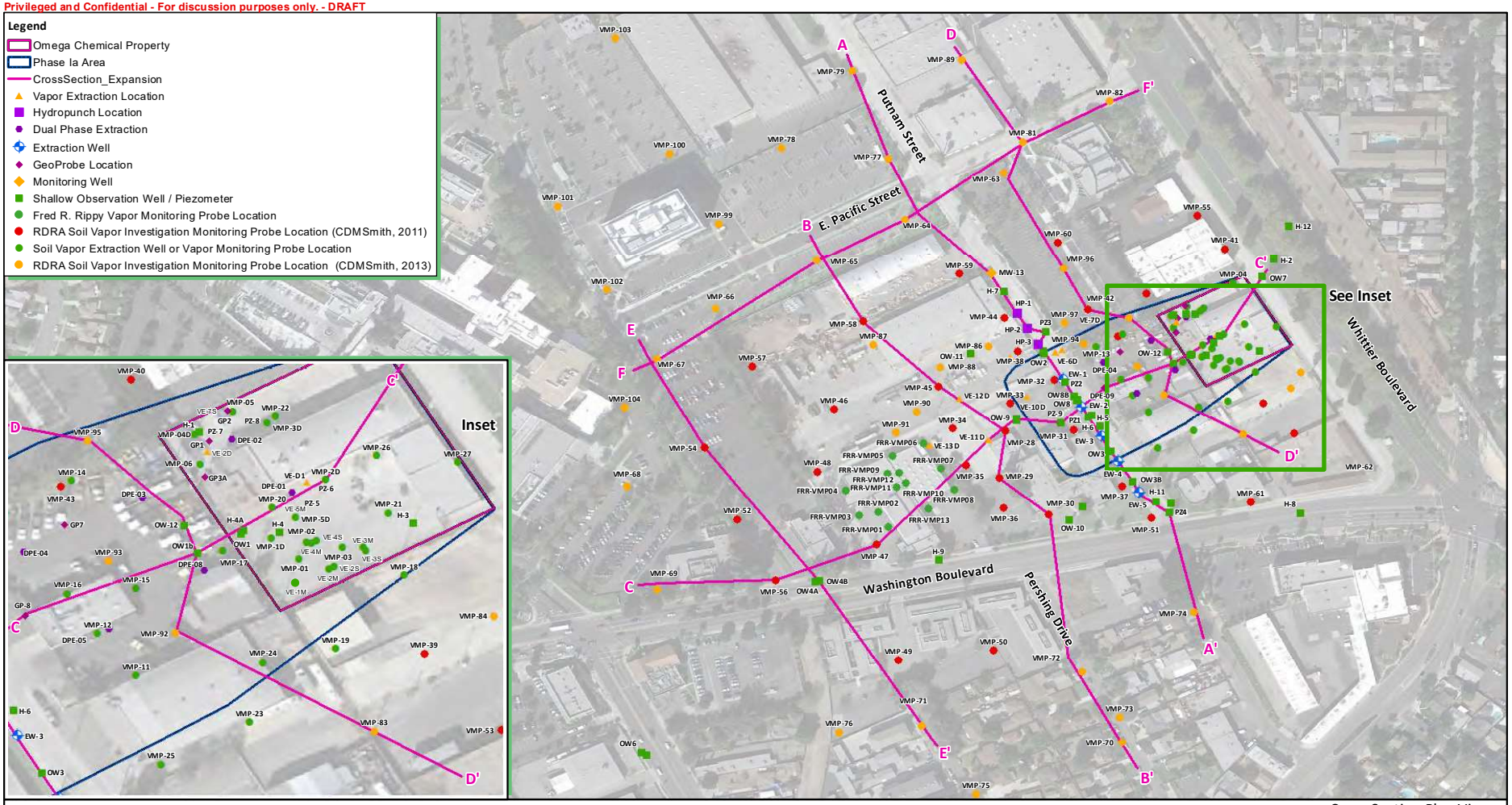
FIG 6

DATE: Nov 09, 2016 10:59pm XREFS:
DWG: C:\cdmwm\nathasom\d1750197\Section A-A' (WTR) NOV 2016.dwg USER: NathhasOM

Privileged and Confidential - For discussion purposes only. - DRAFT

Legend

- Omega Chemical Property
- Phase Ia Area
- CrossSection_Expansion
- Vapor Extraction Location
- Hydropunch Location
- Dual Phase Extraction
- Extraction Well
- GeoProbe Location
- Monitoring Well
- Shallow Observation Well / Piezometer
- Fred R. Rippy Vapor Monitoring Probe Location
- RDRA Soil Vapor Investigation Monitoring Probe Location (CDMSmith, 2011)
- Soil Vapor Extraction Well or Vapor Monitoring Probe Location
- RDRA Soil Vapor Investigation Monitoring Probe Location (CDMSmith, 2013)



N

250 0 250

Feet

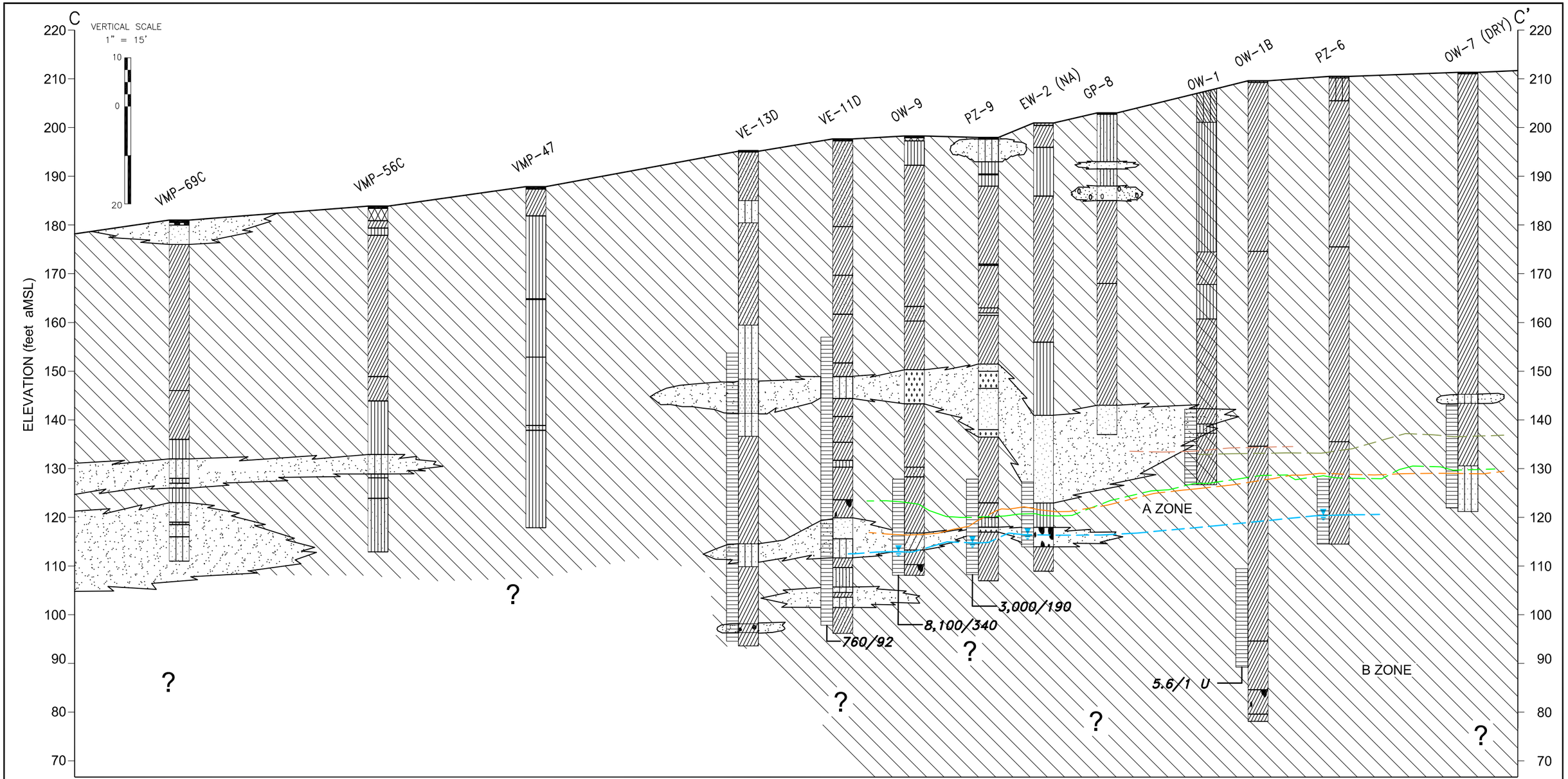
Cross-Section Plan View

Figure 1

Omega Chemical

CDM Smith

Schellerka F:\GIS\105100_Omega\2016\113031\Groundwater\Miscellaneous\Figure 1_Cross-Section Plan View.mxd 6/11/2016



LEGEND

Gravel	Clay	Silty Sand	Clayey Silt or Silty Clay
Gravelly Clay	Sand	Silt	Well Screen
Clayey Gravel	Gravelly Sand	Clayey Sand	Water Level

U - Not detected at detection limit
aMSL - above Mean Sea Level
NA - Not analyzed
350/34 PCE / TCE Groundwater Concentration (µg/L)(Aug 2016)

Groundwater Elevation (Aug 2001)
Groundwater Elevation (Aug 2005)
Groundwater Elevation (Sep 2009)
Groundwater Elevation (Sep 2012)
Groundwater Elevation (Aug 2016)

GROUNDWATER

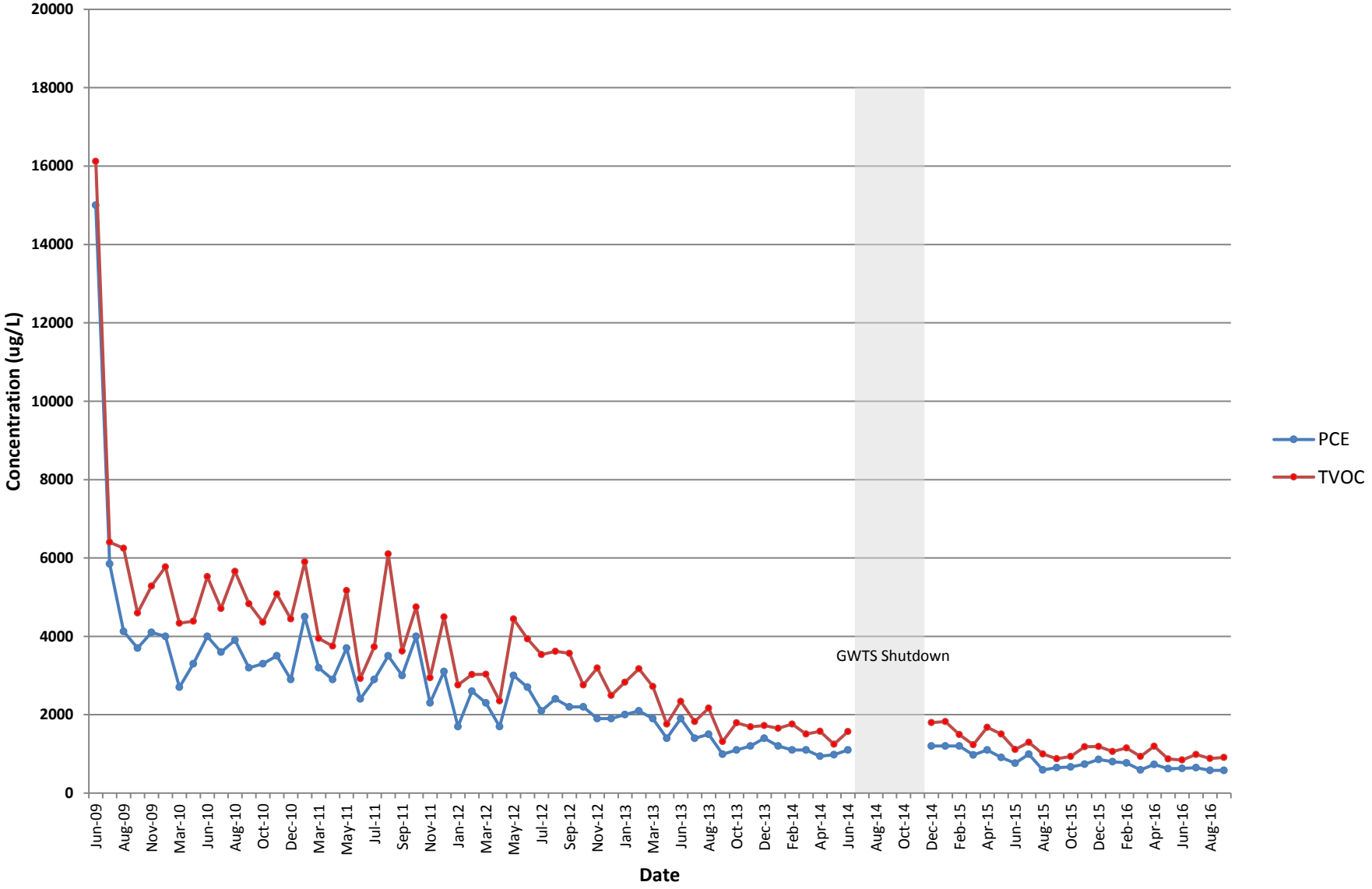
CDM Smith
111 Academy, Suite 150
Irvine, California 92617
Tel (949) 752-5452
Fax (949) 725-3790

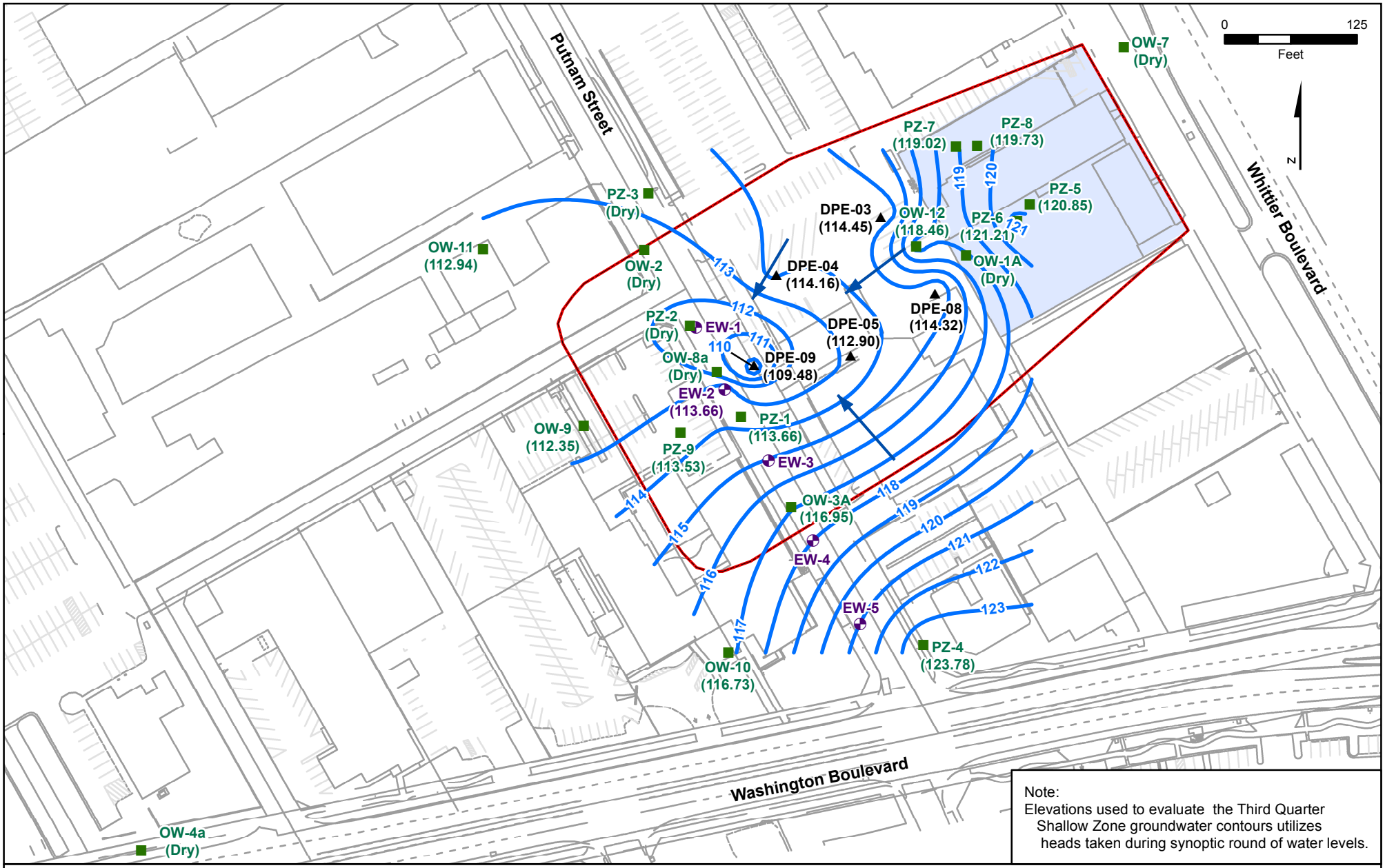
OMEGA
LITHOLOGIC CROSS-SECTION
C TO C'

FIG 7

DATE: Nov 09, 2016 11:03pm XREFS:
DWG: C:\cdmxm\nathasom\d1750197\Section c-c' (WTR) August 2016.dwg USER: NathasOM

Figure 8
System Influent Concentrations
Omega Chemical Superfund Site





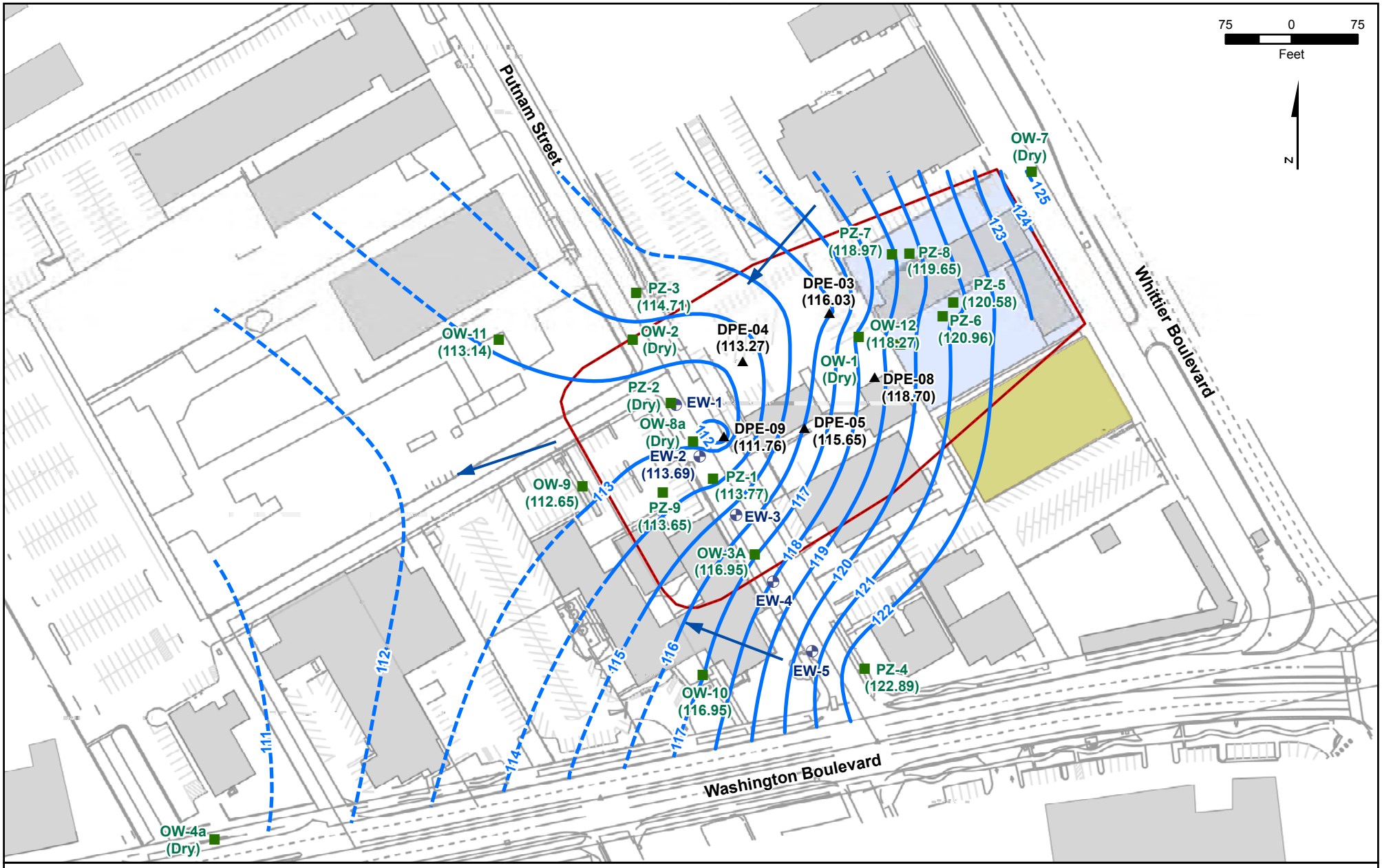
Note:
Elevations used to evaluate the Third Quarter Shallow Zone groundwater contours utilizes heads taken during synoptic round of water levels.

Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Shallow Observation Well / Piezometer

CDM Smith

Figure 9
Omega Chemical
Shallow Zone
Groundwater Contour Map
August 16, 2016

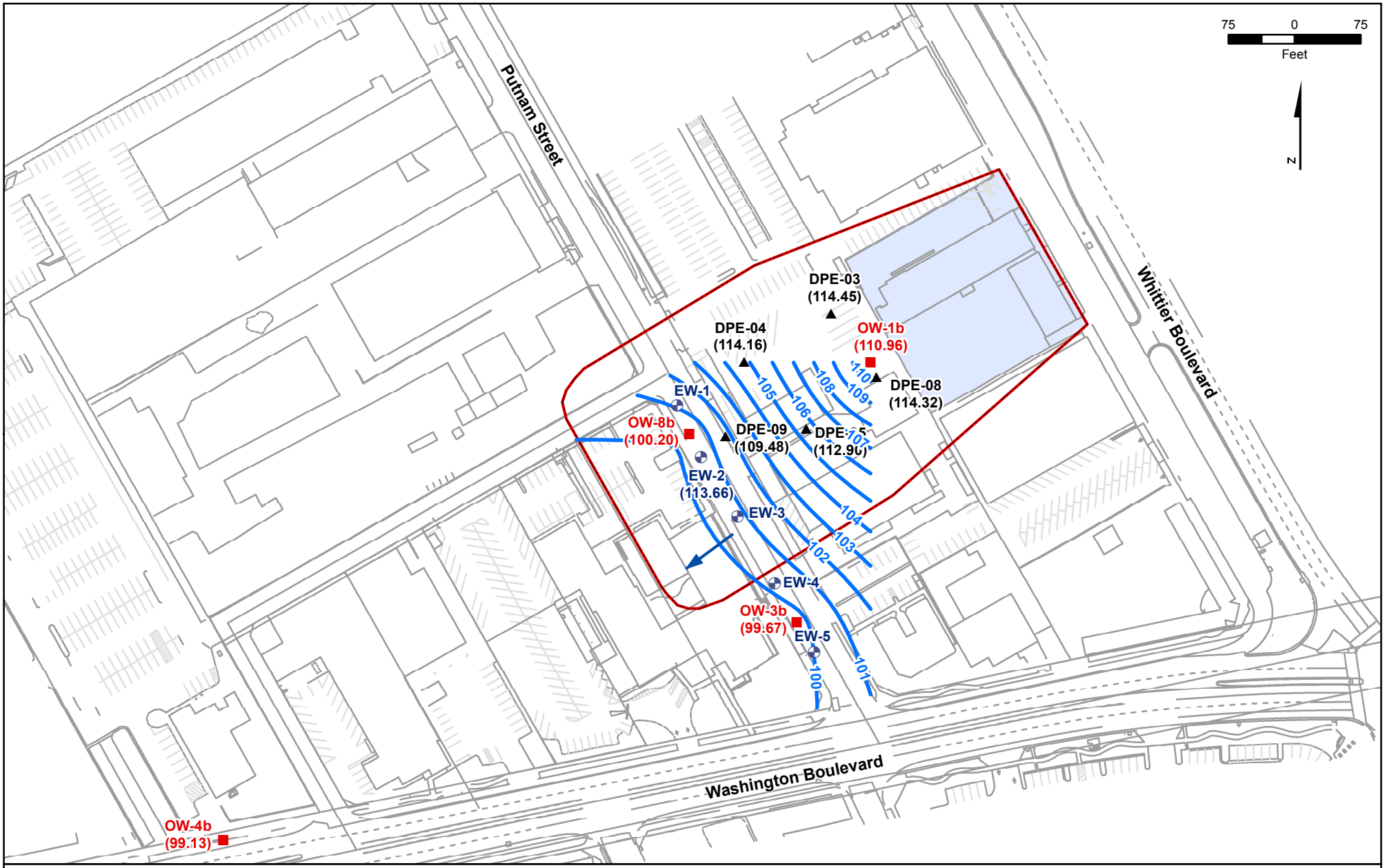


Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour - Dashed where Inferred (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Shallow Observation Well / Piezometer

CDM Smith

Figure 10
Omega Chemical
Shallow Zone
Groundwater Contour Map
May 25, 2016



Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour - Dashed where Inferred (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Deep Observation Well / Piezometer

CDM Smith

Figure 11
Omega Chemical
B Zone Groundwater Elevation Contour Map
August 16, 2016

Extraction Well

Observation Well/Piezometer

Dual Phase Extraction Well

OU1 Boundary

NS = Not Sampled, dry
J = results are qualified as estimated
Only those wells included in the semi-annual sampling program are shown.

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 12
Tetrachloroethene (PCE)
Zone A Concentration
Omega Chemical Superfund Site
Third Quarter 2016

Observation Well

OU1 Boundary

Only those wells included in the semi-annual sampling program are shown.

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 13
Tetrachloroethene (PCE)
Zone B Concentration
Omega Chemical Superfund Site
Third Quarter 2016

Extraction Well
Observation Well/Piezometer
Dual Phase Extraction Well
OU1 Boundary

NS = Not Sampled, dry
J = results are qualified as estimated
U = not detected above reporting limit listed
Only those wells included in the semi-annual sampling program are shown.

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 14
Trichloroethene (TCE)
Zone A Concentration
Omega Chemical Superfund Site
Third Quarter 2016

Observation Well

OU1 Boundary

U = not detected above reporting limit listed
Only those wells included in the semi-annual sampling program are shown.

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 15
Trichloroethene (TCE)
Zone B Concentration
Omega Chemical Superfund Site
Third Quarter 2016

Extraction Well
Dual Phase Extraction Well
Observation Well/Piezometer
OU1 Boundary

NS = Not Sampled, dry
U = not detected above reporting limit listed
UJ = not detected above reporting limit listed and reporting limit is qualified as estimated
J- = Result is estimated and is biased low (-). See data validation report in Attachment F.
Only those wells included in the semi-annual sampling program are shown.
*Well did not recharge sufficiently after purging to collect a 1,4-dioxane sample.

ddms
de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 16
1,4 - dioxane
Zone A Concentration
Omega Chemical Superfund Site
Third Quarter 2016

Observation Well

OU1 Boundary

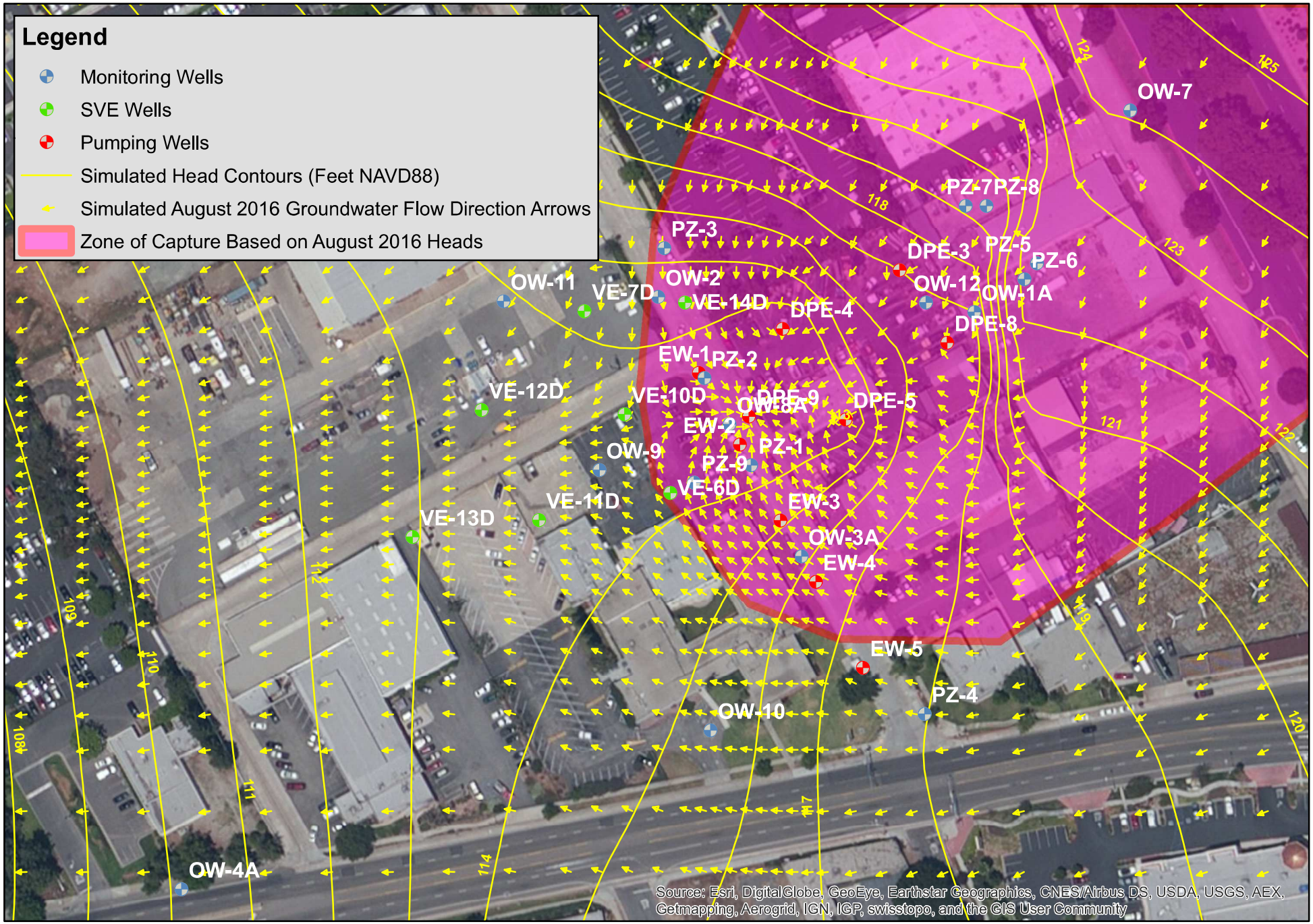
UJ = not detected above reporting limit listed and reporting limit is qualified as estimated
J- = Result is estimated and is biased low (-). See data validation report in Attachment F.
Only those wells included in the semi-annual sampling program are shown.

ddms

de maximis, inc.

Reviewed By: MH
Drawn By: LEM
Date: 10/5/2016

Figure 17
1,4 - dioxane
Zone B Concentration
Omega Chemical Superfund Site
Third Quarter 2016



CDM Smith

0 50 100 200 Feet

N

Figure 18 - Simulated Flow Direction Arrows and Head Contours
August 2016 Conditions
Omega Chemical Facility
Capture Zone Model

ATTACHMENT A

Sanitation Districts of Los Angeles County
Industrial Wastewater Self-Monitoring Report

OMEGA CHEMICAL SITE PRP ORGANIZED GROUP
1322 Scott Street
Suite 104
San Diego, Ca 92106
(619) 546-8377
(619) 546-9980 FAX
e-mail: edm@demaximis.com

January 7, 2016

Ms. Grace Robinson Hyde
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601-1400

Subject: Self-Monitoring Report -4th Quarter 2015
Permit Number 20039, Surcharge Account Number 2113183

Dear Ms. Grace Robinson Hyde,

This letter transmits the 4th Quarter 2015 Self-Monitoring Report (SMR) for the Omega Chemical Site located at 12520 East Whittier Blvd, Whittier, California. Feel free to contact me if you need any additional information.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

SANITATION DISTRICTS OF LOS ANGELES COUNTY

GRACE ROBINSON HYDE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

Permit Number: 20039
Facility ID: 2113183

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 10/01/2015 To: 12/31/2015 Report Due No Later Than : 01/15/2016

Company Name: **Omega Chemical Site PRP Group LLC**
Wastewater Discharge Address: **12520 WHITTIER Blvd Whittier, CA, 90602**
Sample Location: **20039A**
Mailing Address: **1322 Scott Street # 104 San Diego, CA, 92106**
Industrial Wastewater Contact Name and Phone Number: **Mr. Ravi Subramanian** **949-752-5452 x277 - Business**

Has Ownership or Occupancy Changed Since the Last Report? ☐ Yes ☑ No

(Print) Name of Company Collecting Wastewater Sample: TEST AmeriCA

(Print) Sample Date: 11/19/15

Daily Wastewater Discharge for Reporting Period
Average: 8346 GPD
Maximum: 11,268 GPD

Method For Determining Wastewater Flow for Sampling Day
☑ Direct Measurement
☐ Adjusted Metered Water Supply
☐ No Discharge During Reporting Period

Type of Composite Sample
☑ Time Composite
☐ Flow Proportioned Composite

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow			44		gpm	10256
Z01 Sample Day Total Flow			10,180		GPD	10256
101 pH	GRAB	Federal Daily Minimum 5.0 S.U. Local Daily Minimum 6.0 S.U.	8.75		S.U.	10256
151 Solids, Suspended	COMPOSITE		7.8		mg/L	10256
252 Sulfide, Soluble	GRAB	Local At Any Time 0.1 mg/L	ND	0.05	mg/L	10256
403 COD, Total	COMPOSITE		21	20	mg/L	10256
696 1,4-Dioxane	GRAB		45	4.9	ug/L	10256
T09 TTO, Volatile	GRAB	Local At Any Time 1000 ug/L	Our system calculates this value.		ug/L	10256
601 Methylene Chloride	GRAB	31.2 PPB	ND	5	ug/L	10256
602 Chloroform	GRAB	13 PPB	ND	1	ug/L	10256
603 1,1,1-Trichloroethane	GRAB		ND	1	ug/L	10256
604 Carbon Tetrachloride	GRAB	10 PPB	ND	0.5	ug/L	10256
605 1,1-Dichloroethene	GRAB		ND	1	ug/L	10256
606 Trichloroethylene	GRAB	13.4 PPB	ND	1	ug/L	10256
607 Tetrachloroethylene	GRAB	268.6 PPB	ND	1	ug/L	10256
608 Bromodichloromethane	GRAB		ND	1	ug/L	10256
609 Dibromochloromethane	GRAB		ND	1	ug/L	10256
610 Bromoform	GRAB		ND	1	ug/L	10256
611 Chlorobenzene	GRAB		ND	1	ug/L	10256
612 Vinyl Chloride	GRAB	20 PPB	ND	0.5	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 01/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **10/01/2015** To: **12/31/2015**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
613 o-Dichlorobenzene	GRAB		ND	1	ug/L	10256
614 m-Dichlorobenzene	GRAB		ND	1	ug/L	10256
615 p-Dichlorobenzene	GRAB	10 PPB	ND	1	ug/L	10256
616 1,1-Dichloroethane	GRAB	60 PPB	ND	1	ug/L	10256
618 1,1,2-Trichloroethane	GRAB	30 PPB	ND	1	ug/L	10256
619 1,2-Dichloroethane	GRAB	4.6 PPB	ND	1	ug/L	10256
620 Benzene	GRAB	20 PPB	ND	0.5	ug/L	10256
621 Toluene	GRAB		ND	1	ug/L	10256
624 Ethyl Benzene	GRAB		ND	1	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB		ND	1	ug/L	10256
646 Bromomethane	GRAB		ND	1	ug/L	10256
647 Chloroethane	GRAB		ND	1	ug/L	10256
648 2-Chloroethylvinylether	GRAB		ND	2	ug/L	10256
649 Chloromethane	GRAB		ND	1	ug/L	10256
650 1,2-Dichloropropane	GRAB		ND	1	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB		ND	1	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local At Any Time 1000 ug/L	Our system calculates this value.		ug/L	
800 Acenaphthene	GRAB		ND	9.8	ug/L	10256
801 Acenaphthylene	GRAB		ND	9.8	ug/L	10256
802 Anthracene	GRAB		ND	9.8	ug/L	10256
803 Benzidine	GRAB		ND	39	ug/L	10256
804 Benzo(a)anthracene	GRAB		ND	9.8	ug/L	10256
805 Benzo(a)pyrene	GRAB		ND	9.8	ug/L	10256
806 Benzo(b)fluoranthene	GRAB		ND	9.8	ug/L	10256
807 Benzo(g.h.i.)perylene	GRAB		ND	9.8	ug/L	10256
808 Benzo(k)fluoranthene	GRAB		ND	9.8	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB		ND	9.8	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB		ND	9.8	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB		ND	9.8	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB		ND	20	ug/L	10256
813 4-bromophenyl Phenylether	GRAB		ND	9.8	ug/L	10256
814 butylbenzyl Phthalate	GRAB		ND	20	ug/L	10256
815 2-Chloronaphthalene	GRAB		ND	9.8	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 01/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **10/01/2015** To: **12/31/2015**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
816 4-Chlorophenylphenylether	GRAB		ND	9.8	ug/L	10256
817 Chrysene	GRAB		ND	9.8	ug/L	10256
818 dibenzo(a,h)Anthracene	GRAB		ND	20	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB		ND	20	ug/L	10256
823 diethyl Phthalate	GRAB		ND	9.8	ug/L	10256
824 dimethyl Phthalate	GRAB		ND	9.8	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	20	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	20	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	20	ug/L	10256
830 Fluoranthene	GRAB		ND	9.8	ug/L	10256
831 Fluorene	GRAB		ND	9.8	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	9.8	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	9.8	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	20	ug/L	10256
835 Hexachloroethane	GRAB		ND	9.8	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	20	ug/L	10256
837 Isophorone	GRAB		ND	9.8	ug/L	10256
838 Naphthalene	GRAB	10 PPB	ND	9.8	ug/L	10256
839 Nitrobenzene	GRAB		ND	20	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	9.8	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	9.8	ug/L	10256
842 Phenanthrene	GRAB		ND	9.8	ug/L	10256
843 Pyrene	GRAB		ND	9.8	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	9.8	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	29	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	20	ug/L	10256
851 2-Nitrophenol	GRAB		ND	9.8	ug/L	10256
852 4-Nitrophenol	GRAB		ND	20	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 01/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **10/01/2015** To: **12/31/2015**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
855 Phenol	GRAB		ND	9.8	ug/L	10256
856 2,4,6-Trichlorophenol	GRAB		ND	20	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	9.8	ug/L	10256

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the selfmonitoring report form.
(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.
(3) Daily and/or At Any Time permit limits are included on this form for convenience. For a full list of all applicable permit limits, including monthly and 4-day averages, refer to your Permit Data Sheet.
(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.
(5) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.
(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.
(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: Edward Medina on behalf of OPG Date: 01/07/16

Print name of official: Edward Medina Title: Project Coordinator

LACSD USE ONLY

Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____ Monitoring ID: 483487

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: 440-128425-1
Client Project/Site: Omega Chemical - SDLAC/24 hour Composite

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Andrew Miller

Authorized for release by:
12/2/2015 2:15:12 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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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QC Sample Results 11
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Chain of Custody 31
Receipt Checklists 32

Sample Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-128425-1	Composite	Water	11/19/15 13:54	11/19/15 15:48
440-128425-2	Grab	Water	11/19/15 13:58	11/19/15 15:48

Job ID: 440-128425-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-128425-1

Comments
No additional comments.

Receipt
The samples were received on 11/19/2015 3:48 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA
Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 440-296047 recovered outside control limits for the following analytes: Acrolein. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

GC/MS Semi VOA
Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-295861 and analytical batch 440-296468. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The percent recoveries in the laboratory control sample duplicate (LCSD) of preparation batch 440-295861 failed below acceptance limits for 4-chloroaniline and 3,3'-dichlorobenzidine.
These analytes are known as poor performers as they historically do not yield the same consistency in recoveries as other analytes from the preparation method.
The affected samples could not be reextracted within hold times.

Method(s) 8270C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 440-295861 recovered outside control limits for 4-chloroaniline and 3,3'-dichlorobenzidine.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: Grab (440-128425-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

General Chemistry
Method(s) SM 2540D: Samples are out of historical range .However ,there is not enough sample to re-analyze and confirm the result. Composite (440-128425-1)

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Client Sample ID: Composite

Lab Sample ID: 440-128425-1
Date Collected: 11/19/15 13:54
Matrix: Water
Date Received: 11/19/15 15:48

5

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	7.8		1.0	mg/L			11/24/15 16:46	1
Chemical Oxygen Demand	21		20	mg/L			11/23/15 20:55	1

Client Sample ID: Grab

Lab Sample ID: 440-128425-2
Date Collected: 11/19/15 13:58
Matrix: Water
Date Received: 11/19/15 15:48

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			11/25/15 05:29	1
Acrolein	ND	*	5.0	ug/L			11/24/15 15:41	1
Acrylonitrile	ND		2.0	ug/L			11/24/15 15:41	1
Benzene	ND		0.50	ug/L			11/25/15 05:29	1
Bromobenzene	ND		1.0	ug/L			11/25/15 05:29	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			11/24/15 15:41	1
Bromochloromethane	ND		1.0	ug/L			11/25/15 05:29	1
Bromodichloromethane	ND		1.0	ug/L			11/25/15 05:29	1
Bromoform	ND		1.0	ug/L			11/25/15 05:29	1
Total Volatile Organic Compounds	ND		150	ug/L			11/24/15 15:41	1
Bromomethane	ND		1.0	ug/L			11/25/15 05:29	1
Carbon tetrachloride	ND		0.50	ug/L			11/25/15 05:29	1
Chlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
Chloroethane	ND		1.0	ug/L			11/25/15 05:29	1
Chloroform	ND		1.0	ug/L			11/25/15 05:29	1
Chloromethane	ND		1.0	ug/L			11/25/15 05:29	1
2-Chlorotoluene	ND		1.0	ug/L			11/25/15 05:29	1
4-Chlorotoluene	ND		1.0	ug/L			11/25/15 05:29	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			11/25/15 05:29	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/25/15 05:29	1
Dibromochloromethane	ND		1.0	ug/L			11/25/15 05:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/25/15 05:29	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			11/25/15 05:29	1
Dibromomethane	ND		1.0	ug/L			11/25/15 05:29	1
1,2-Dichlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,3-Dichlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,4-Dichlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/25/15 05:29	1
1,1-Dichloroethane	ND		1.0	ug/L			11/25/15 05:29	1
1,2-Dichloroethane	ND		1.0	ug/L			11/25/15 05:29	1
1,1-Dichloroethene	ND		1.0	ug/L			11/25/15 05:29	1
1,2-Dichloropropane	ND		1.0	ug/L			11/25/15 05:29	1
1,3-Dichloropropane	ND		1.0	ug/L			11/25/15 05:29	1
2,2-Dichloropropane	ND		1.0	ug/L			11/25/15 05:29	1
1,1-Dichloropropene	ND		1.0	ug/L			11/25/15 05:29	1
Ethylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
Hexachlorobutadiene	ND		1.0	ug/L			11/25/15 05:29	1
Isopropylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
Methylene Chloride	ND		5.0	ug/L			11/25/15 05:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			11/25/15 05:29	1

Client Sample ID: Grab

Date Collected: 11/19/15 13:58
Date Received: 11/19/15 15:48

Lab Sample ID: 440-128425-2

Matrix: Water

5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			11/25/15 05:29	1
Naphthalene	ND		1.0	ug/L			11/25/15 05:29	1
n-Butylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
N-Propylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
o-Xylene	ND		1.0	ug/L			11/25/15 05:29	1
p-Isopropyltoluene	ND		1.0	ug/L			11/25/15 05:29	1
sec-Butylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
Styrene	ND		1.0	ug/L			11/25/15 05:29	1
tert-Butylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			11/25/15 05:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			11/25/15 05:29	1
Tetrachloroethene	ND		1.0	ug/L			11/25/15 05:29	1
Toluene	ND		1.0	ug/L			11/25/15 05:29	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			11/25/15 05:29	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/25/15 05:29	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,1,1-Trjchloroethane	ND		1.0	ug/L			11/25/15 05:29	1
1,1,2-Trichloroethane	ND		1.0	ug/L			11/25/15 05:29	1
Trichloroethene	ND		1.0	ug/L			11/25/15 05:29	1
Trichlorofluoromethane	ND		1.0	ug/L			11/25/15 05:29	1
1,2,3-Trichloropropane	ND		1.0	ug/L			11/25/15 05:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			11/25/15 05:29	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			11/25/15 05:29	1
Vinyl chloride	ND		0.50	ug/L			11/25/15 05:29	1
Total Volatile Organic Compounds	ND		150	ug/L			11/25/15 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/24/15 15:41*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*11/24/15 15:41*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/25/15 05:29*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*11/24/15 15:41*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*11/25/15 05:29*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*11/25/15 05:29*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	45		4.9	ug/L		11/23/15 14:15	11/24/15 22:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*79*		*36 - 90*	*11/23/15 14:15*	*11/24/15 22:43*	*10*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
1,2-Dichlorobenzene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
1,3-Dichlorobenzene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
1,4-Dichlorobenzene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1

Client Sample ID: Grab

Date Collected: 11/19/15 13:58
Date Received: 11/19/15 15:48

Lab Sample ID: 440-128425-2

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,4,6-Trichlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,4-Dichlorophenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,4-Dimethylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,4-Dinitrophenol	ND		39	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,4-Dinitrotoluene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2,6-Dinitrotoluene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Chloronaphthalene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Chlorophenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Methylnaphthalene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Methylphenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
2-Nitrophenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
3,3'-Dichlorobenzidine	ND	*	20	ug/L		11/23/15 13:07	11/25/15 15:53	1
3-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Bromophenyl phenyl ether	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Chloro-3-methylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Chloroaniline	ND	*	9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Chlorophenyl phenyl ether	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
3-Methylphenol + 4-Methylphenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
4-Nitrophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Acenaphthene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Acenaphthylene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Aniline	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Anthracene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzidine	ND		39	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzo[a]anthracene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzo[a]pyrene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzo[b]fluoranthene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzo[g,h,i]perylene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzo[k]fluoranthene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzoic acid	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Benzyl alcohol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Bis(2-chloroethoxy)methane	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Bis(2-chloroethyl)ether	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Butyl benzyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Chrysene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Dibenz(a,h)anthracene	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Dibenzofuran	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Diethyl phthalate	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Dimethyl phthalate	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Di-n-butyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Di-n-octyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Fluoranthene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Fluorene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Hexachlorobenzene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Client Sample ID: Grab

Date Collected: 11/19/15 13:58
Date Received: 11/19/15 15:48

Lab Sample ID: 440-128425-2

Matrix: Water

5

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Hexachlorocyclopentadiene	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Hexachloroethane	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Isophorone	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Naphthalene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Nitrobenzene	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
N-Nitrosodi-n-propylamine	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
N-Nitrosodiphenylamine	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Pentachlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 15:53	1
Phenanthrene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Phenol	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
Pyrene	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1
bis (2-chloroisopropyl) ether	ND		9.8	ug/L		11/23/15 13:07	11/25/15 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*50 - 120*	*11/23/15 13:07*	*11/25/15 15:53*	*1*
2-Fluorophenol (Surr)	*63*		*30 - 120*	*11/23/15 13:07*	*11/25/15 15:53*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*40 - 120*	*11/23/15 13:07*	*11/25/15 15:53*	*1*
Nitrobenzene-d5 (Surr)	*55*		*45 - 120*	*11/23/15 13:07*	*11/25/15 15:53*	*1*
Terphenyl-d14 (Surr)	*77*		*10 - 150*	*11/23/15 13:07*	*11/25/15 15:53*	*1*
Phenol-d6 (Surr)	*57*		*35 - 120*	*11/23/15 13:07*	*11/25/15 15:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.75	HF	0.100	SU			11/23/15 14:42	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050	mg/L		11/22/15 17:10	11/22/15 19:50	1

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV

Protocol References:

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

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Client Sample ID: Composite

Lab Sample ID: 440-128425-1
Matrix: Water

Date Collected: 11/19/15 13:54
Date Received: 11/19/15 15:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	296255	11/24/15 16:46	MMH	TAL IRV
Total/NA	Analysis	SM 5220D		1	0.625 mL	2.5 mL	296013	11/23/15 20:55	MSM	TAL IRV

Client Sample ID: Grab

Lab Sample ID: 440-128425-2
Matrix: Water

Date Collected: 11/19/15 13:58
Date Received: 11/19/15 15:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	296269	11/25/15 05:29	AA	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	296047	11/24/15 15:41	HR	TAL IRV
Total/NA	Prep	3520C			1020 mL	2 mL	295861	11/23/15 13:07	AK	TAL IRV
Total/NA	Analysis	8270C		1	1020 mL	2 mL	296468	11/25/15 15:53	DF	TAL IRV
Total/NA	Prep	3520C			1020 mL	1 mL	295886	11/23/15 14:15	AK	TAL IRV
Total/NA	Analysis	8270C SIM		10	1020 mL	1 mL	296261	11/24/15 22:43	AI	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1		50 mL	295833	11/23/15 14:42	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			40 mL	40 mL	295719	11/22/15 17:10	MSM	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	40 mL	40 mL	295727	11/22/15 19:50	MSM	TAL IRV

Laboratory References:
TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-296047/4
Matrix: Water
Analysis Batch: 296047

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			11/24/15 08:19	1
Acrylonitrile	ND		2.0	ug/L			11/24/15 08:19	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			11/24/15 08:19	1
Total Volatile Organic Compounds	ND		150	ug/L			11/24/15 08:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/24/15 08:19*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*11/24/15 08:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*11/24/15 08:19*	*1*

Lab Sample ID: LCS 440-296047/5
Matrix: Water
Analysis Batch: 296047

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	25.0	30.5		ug/L		122	37 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Lab Sample ID: LCSD 440-296047/6
Matrix: Water
Analysis Batch: 296047

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
2-Chloroethyl vinyl ether	25.0	30.5		ug/L		122	37 - 150	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Lab Sample ID: 440-128428-F-1 MS
Matrix: Water
Analysis Batch: 296047

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	ND		25.0	31.0		ug/L		124	10 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*
Toluene-d8 (Surr)	*96*		*80 - 128*

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

Lab Sample ID: 440-128428-F-1 MSD
Matrix: Water
Analysis Batch: 296047

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND		25.0	27.7		ug/L		111	10 - 140	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*76 - 132*
Toluene-d8 (Surr)	*96*		*80 - 128*

Lab Sample ID: MB 440-296269/3
Matrix: Water
Analysis Batch: 296269

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			11/24/15 19:08	1
Benzene	ND		0.50	ug/L			11/24/15 19:08	1
Bromobenzene	ND		1.0	ug/L			11/24/15 19:08	1
Bromochloromethane	ND		1.0	ug/L			11/24/15 19:08	1
Bromodichloromethane	ND		1.0	ug/L			11/24/15 19:08	1
Bromoform	ND		1.0	ug/L			11/24/15 19:08	1
Bromomethane	ND		1.0	ug/L			11/24/15 19:08	1
Carbon tetrachloride	ND		0.50	ug/L			11/24/15 19:08	1
Chlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
Chloroethane	ND		1.0	ug/L			11/24/15 19:08	1
Chloroform	ND		1.0	ug/L			11/24/15 19:08	1
Chloromethane	ND		1.0	ug/L			11/24/15 19:08	1
2-Chlorotoluene	ND		1.0	ug/L			11/24/15 19:08	1
4-Chlorotoluene	ND		1.0	ug/L			11/24/15 19:08	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			11/24/15 19:08	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			11/24/15 19:08	1
Dibromochloromethane	ND		1.0	ug/L			11/24/15 19:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			11/24/15 19:08	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			11/24/15 19:08	1
Dibromomethane	ND		1.0	ug/L			11/24/15 19:08	1
1,2-Dichlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,3-Dichlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,4-Dichlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
Dichlorodifluoromethane	ND		1.0	ug/L			11/24/15 19:08	1
1,1-Dichloroethane	ND		1.0	ug/L			11/24/15 19:08	1
1,2-Dichloroethane	ND		1.0	ug/L			11/24/15 19:08	1
1,1-Dichloroethene	ND		1.0	ug/L			11/24/15 19:08	1
1,2-Dichloropropane	ND		1.0	ug/L			11/24/15 19:08	1
1,3-Dichloropropane	ND		1.0	ug/L			11/24/15 19:08	1
2,2-Dichloropropane	ND		1.0	ug/L			11/24/15 19:08	1
1,1-Dichloropropene	ND		1.0	ug/L			11/24/15 19:08	1
Ethylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
Hexachlorobutadiene	ND		1.0	ug/L			11/24/15 19:08	1
Isopropylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
Methylene Chloride	ND		5.0	ug/L			11/24/15 19:08	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			11/24/15 19:08	1

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

Lab Sample ID: MB 440-296269/3
Matrix: Water
Analysis Batch: 296269

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			11/24/15 19:08	1
Naphthalene	ND		1.0	ug/L			11/24/15 19:08	1
n-Butylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
N-Propylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
o-Xylene	ND		1.0	ug/L			11/24/15 19:08	1
p-Isopropyltoluene	ND		1.0	ug/L			11/24/15 19:08	1
sec-Butylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
Styrene	ND		1.0	ug/L			11/24/15 19:08	1
tert-Butylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			11/24/15 19:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			11/24/15 19:08	1
Tetrachloroethene	ND		1.0	ug/L			11/24/15 19:08	1
Toluene	ND		1.0	ug/L			11/24/15 19:08	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			11/24/15 19:08	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			11/24/15 19:08	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,1,1-Trichloroethane	ND		1.0	ug/L			11/24/15 19:08	1
1,1,2-Trichloroethane	ND		1.0	ug/L			11/24/15 19:08	1
Trichloroethene	ND		1.0	ug/L			11/24/15 19:08	1
Trichlorofluoromethane	ND		1.0	ug/L			11/24/15 19:08	1
1,2,3-Trichloropropane	ND		1.0	ug/L			11/24/15 19:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			11/24/15 19:08	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			11/24/15 19:08	1
Vinyl chloride	ND		0.50	ug/L			11/24/15 19:08	1
Total Volatile Organic Compounds	ND		150	ug/L			11/24/15 19:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/24/15 19:08*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*11/24/15 19:08*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*11/24/15 19:08*	*1*

Lab Sample ID: LCS 440-296269/4
Matrix: Water
Analysis Batch: 296269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	23.0		ug/L		92	10 - 150
Benzene	25.0	23.7		ug/L		95	68 - 130
Bromobenzene	25.0	23.5		ug/L		94	70 - 130
Bromochloromethane	25.0	24.0		ug/L		96	70 - 130
Bromodichloromethane	25.0	25.3		ug/L		101	70 - 132
Bromoform	25.0	26.1		ug/L		105	60 - 148
Bromomethane	25.0	24.8		ug/L		99	64 - 139
Carbon tetrachloride	25.0	27.1		ug/L		108	60 - 150
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130
Chloroethane	25.0	24.2		ug/L		97	64 - 135

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

Lab Sample ID: LCS 440-296269/4
Matrix: Water
Analysis Batch: 296269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	25.0	24.4		ug/L		98	70 - 130
Chloromethane	25.0	24.8		ug/L		99	47 - 140
2-Chlorotoluene	25.0	23.5		ug/L		94	70 - 130
4-Chlorotoluene	25.0	23.2		ug/L		93	70 - 130
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	70 - 133
cis-1,3-Dichloropropene	25.0	24.4		ug/L		97	70 - 133
Dibromochloromethane	25.0	24.8		ug/L		99	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	19.9		ug/L		80	52 - 140
1,2-Dibromoethane (EDB)	25.0	24.1		ug/L		96	70 - 130
Dibromomethane	25.0	24.1		ug/L		97	70 - 130
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	70 - 130
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	26.7		ug/L		107	29 - 150
1,1-Dichloroethane	25.0	24.2		ug/L		97	64 - 130
1,2-Dichloroethane	25.0	25.2		ug/L		101	57 - 138
1,1-Dichloroethene	25.0	24.5		ug/L		98	70 - 130
1,2-Dichloropropane	25.0	24.7		ug/L		99	67 - 130
1,3-Dichloropropane	25.0	23.9		ug/L		95	70 - 130
2,2-Dichloropropane	25.0	28.5		ug/L		114	68 - 141
1,1-Dichloropropene	25.0	23.8		ug/L		95	70 - 130
Ethylbenzene	25.0	25.2		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	25.8		ug/L		103	10 - 150
Isopropylbenzene	25.0	26.4		ug/L		106	70 - 136
Methylene Chloride	25.0	23.7		ug/L		95	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	22.0		ug/L		88	63 - 131
m,p-Xylene	25.0	25.9		ug/L		104	70 - 130
Naphthalene	25.0	21.9		ug/L		87	60 - 140
n-Butylbenzene	25.0	25.2		ug/L		101	65 - 150
N-Propylbenzene	25.0	23.6		ug/L		94	67 - 139
o-Xylene	25.0	26.4		ug/L		106	70 - 130
p-Isopropyltoluene	25.0	24.3		ug/L		97	70 - 132
sec-Butylbenzene	25.0	24.0		ug/L		96	70 - 138
Styrene	25.0	25.9		ug/L		103	70 - 134
tert-Butylbenzene	25.0	22.8		ug/L		91	70 - 130
1,1,1,2-Tetrachloroethane	25.0	26.4		ug/L		106	60 - 141
1,1,2,2-Tetrachloroethane	25.0	20.6		ug/L		82	63 - 130
Tetrachloroethene	25.0	27.7		ug/L		111	70 - 130
Toluene	25.0	26.2		ug/L		105	70 - 130
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	22.3		ug/L		89	70 - 132
1,2,3-Trichlorobenzene	25.0	23.6		ug/L		94	60 - 140
1,2,4-Trichlorobenzene	25.0	24.5		ug/L		98	60 - 140
1,1,1-Trichloroethane	25.0	26.6		ug/L		106	70 - 130
1,1,2-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
Trichloroethene	25.0	26.7		ug/L		107	70 - 130
Trichlorofluoromethane	25.0	27.7		ug/L		111	60 - 150
1,2,3-Trichloropropane	25.0	18.6		ug/L		75	63 - 130

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

Lab Sample ID: LCS 440-296269/4
Matrix: Water
Analysis Batch: 296269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		97	70 - 135
1,3,5-Trimethylbenzene	25.0	23.1		ug/L		92	70 - 136
Vinyl chloride	25.0	25.6		ug/L		103	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 720-68769-J-1 MS
Matrix: Water
Analysis Batch: 296269

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	380	E	25.0	396	E 4	ug/L		72	10 - 150
Benzene	ND		25.0	24.8		ug/L		99	66 - 130
Bromobenzene	ND		25.0	24.0		ug/L		96	70 - 130
Bromochloromethane	ND		25.0	24.1		ug/L		97	70 - 130
Bromodichloromethane	ND		25.0	24.9		ug/L		100	70 - 138
Bromoform	ND		25.0	27.2		ug/L		109	59 - 150
Bromomethane	ND		25.0	26.1		ug/L		104	62 - 131
Carbon tetrachloride	ND		25.0	27.7		ug/L		111	60 - 150
Chlorobenzene	1.0		25.0	27.5		ug/L		106	70 - 130
Chloroethane	ND		25.0	24.2		ug/L		97	68 - 130
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130
Chloromethane	ND		25.0	25.5		ug/L		102	39 - 144
2-Chlorotoluene	ND		25.0	24.4		ug/L		97	70 - 130
4-Chlorotoluene	ND		25.0	23.9		ug/L		95	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 133
Dibromochloromethane	ND		25.0	25.1		ug/L		100	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	24.3		ug/L		97	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	25.7		ug/L		103	70 - 131
Dibromomethane	ND		25.0	24.2		ug/L		97	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.4		ug/L		101	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,4-Dichlorobenzene	2.3		25.0	28.0		ug/L		103	70 - 130
Dichlorodifluoromethane	ND		25.0	27.1		ug/L		109	25 - 142
1,1-Dichloroethane	ND		25.0	23.3		ug/L		93	65 - 130
1,2-Dichloroethane	ND		25.0	24.9		ug/L		100	56 - 146
1,1-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130
1,2-Dichloropropane	ND		25.0	24.8		ug/L		99	69 - 130
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130
2,2-Dichloropropane	ND		25.0	29.0		ug/L		116	69 - 138
1,1-Dichloropropene	ND		25.0	25.8		ug/L		103	64 - 130
Ethylbenzene	1.3		25.0	27.8		ug/L		106	70 - 130
Hexachlorobutadiene	ND		25.0	27.9		ug/L		112	10 - 150
Isopropylbenzene	ND		25.0	27.9		ug/L		112	70 - 132

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

Lab Sample ID: 720-68769-J-1 MS
Matrix: Water
Analysis Batch: 296269

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	ND		25.0	26.5		ug/L		102	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	22.4		ug/L		90	70 - 130
m,p-Xylene	2.3		25.0	29.5		ug/L		109	70 - 133
Naphthalene	2.5		25.0	29.8		ug/L		109	60 - 140
n-Butylbenzene	ND		25.0	26.9		ug/L		108	61 - 149
N-Propylbenzene	ND		25.0	25.0		ug/L		100	66 - 135
o-Xylene	1.2		25.0	28.1		ug/L		108	70 - 133
p-Isopropyltoluene	1.0		25.0	26.0		ug/L		100	70 - 130
sec-Butylbenzene	ND		25.0	25.7		ug/L		103	67 - 134
Styrene	ND		25.0	26.7		ug/L		107	29 - 150
tert-Butylbenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	26.3		ug/L		105	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	24.1		ug/L		96	63 - 130
Tetrachloroethene	ND		25.0	28.7		ug/L		115	70 - 137
Toluene	2.9		25.0	29.8		ug/L		107	70 - 130
trans-1,2-Dichloroethene	ND		25.0	26.0		ug/L		104	70 - 130
trans-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	26.4		ug/L		106	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	27.4		ug/L		110	60 - 140
1,1,1-Trichloroethane	ND		25.0	27.0		ug/L		108	70 - 130
1,1,2-Trichloroethane	ND		25.0	25.9		ug/L		104	70 - 130
Trichloroethene	ND		25.0	27.4		ug/L		110	70 - 130
Trichlorofluoromethane	ND		25.0	27.8		ug/L		111	60 - 150
1,2,3-Trichloropropane	ND		25.0	21.6		ug/L		86	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	24.4		ug/L		98	70 - 130
Vinyl chloride	ND		25.0	27.4		ug/L		109	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Lab Sample ID: 720-68769-J-1 MSD
Matrix: Water
Analysis Batch: 296269

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	380	E	25.0	417	E 4	ug/L		155	10 - 150	5	35
Benzene	ND		25.0	24.1		ug/L		96	66 - 130	3	20
Bromobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Bromochloromethane	ND		25.0	24.3		ug/L		97	70 - 130	1	25
Bromodichloromethane	ND		25.0	24.2		ug/L		97	70 - 138	3	20
Bromoform	ND		25.0	27.4		ug/L		110	59 - 150	1	25
Bromomethane	ND		25.0	25.3		ug/L		101	62 - 131	3	25
Carbon tetrachloride	ND		25.0	26.2		ug/L		105	60 - 150	5	25
Chlorobenzene	1.0		25.0	27.8		ug/L		107	70 - 130	1	20
Chloroethane	ND		25.0	24.9		ug/L		100	68 - 130	3	25

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

Lab Sample ID: 720-68769-J-1 MSD
Matrix: Water
Analysis Batch: 296269

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	ND		25.0	24.4		ug/L		98	70 - 130	1	20
Chloromethane	ND		25.0	28.6		ug/L		114	39 - 144	11	25
2-Chlorotoluene	ND		25.0	24.8		ug/L		99	70 - 130	2	20
4-Chlorotoluene	ND		25.0	24.2		ug/L		97	70 - 130	1	20
cis-1,2-Dichloroethene	ND		25.0	24.9		ug/L		100	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	24.9		ug/L		100	70 - 133	0	20
Dibromochloromethane	ND		25.0	25.6		ug/L		102	70 - 148	2	25
1,2-Dibromo-3-Chloropropane	ND		25.0	25.7		ug/L		103	48 - 140	5	30
1,2-Dibromoethane (EDB)	ND		25.0	27.1		ug/L		108	70 - 131	5	25
Dibromomethane	ND		25.0	25.8		ug/L		103	70 - 130	6	25
1,2-Dichlorobenzene	ND		25.0	26.4		ug/L		106	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130	2	20
1,4-Dichlorobenzene	2.3		25.0	28.1		ug/L		103	70 - 130	0	20
Dichlorodifluoromethane	ND		25.0	28.2		ug/L		113	25 - 142	4	30
1,1-Dichloroethane	ND		25.0	23.5		ug/L		94	65 - 130	1	20
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146	2	20
1,1-Dichloroethene	ND		25.0	25.1		ug/L		100	70 - 130	3	20
1,2-Dichloropropane	ND		25.0	24.4		ug/L		98	69 - 130	2	20
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130	0	25
2,2-Dichloropropane	ND		25.0	27.3		ug/L		109	69 - 138	6	25
1,1-Dichloropropene	ND		25.0	25.6		ug/L		102	64 - 130	1	20
Ethylbenzene	1.3		25.0	27.8		ug/L		106	70 - 130	0	20
Hexachlorobutadiene	ND		25.0	27.5		ug/L		110	10 - 150	1	20
Isopropylbenzene	ND		25.0	27.5		ug/L		110	70 - 132	2	20
Methylene Chloride	ND		25.0	25.6		ug/L		98	52 - 130	3	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.4		ug/L		94	70 - 130	4	25
m,p-Xylene	2.3		25.0	29.1		ug/L		107	70 - 133	1	25
Naphthalene	2.5		25.0	31.9		ug/L		117	60 - 140	7	30
n-Butylbenzene	ND		25.0	27.5		ug/L		110	61 - 149	2	20
N-Propylbenzene	ND		25.0	25.0		ug/L		100	66 - 135	0	20
o-Xylene	1.2		25.0	28.1		ug/L		108	70 - 133	0	20
p-Isopropyltoluene	1.0		25.0	26.5		ug/L		102	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.8		ug/L		103	67 - 134	0	20
Styrene	ND		25.0	26.8		ug/L		107	29 - 150	0	35
tert-Butylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	2	20
1,1,1,2-Tetrachloroethane	ND		25.0	26.6		ug/L		107	60 - 149	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.1		ug/L		100	63 - 130	4	30
Tetrachloroethene	ND		25.0	30.1		ug/L		121	70 - 137	5	20
Toluene	2.9		25.0	29.7		ug/L		107	70 - 130	0	20
trans-1,2-Dichloroethene	ND		25.0	26.8		ug/L		107	70 - 130	3	20
trans-1,3-Dichloropropene	ND		25.0	24.5		ug/L		98	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.0		ug/L		108	60 - 140	2	20
1,2,4-Trichlorobenzene	ND		25.0	27.9		ug/L		112	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	26.6		ug/L		106	70 - 130	3	25
Trichloroethene	ND		25.0	25.9		ug/L		104	70 - 130	5	20
Trichlorofluoromethane	ND		25.0	27.2		ug/L		109	60 - 150	2	25
1,2,3-Trichloropropane	ND		25.0	23.0		ug/L		92	60 - 130	6	30

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

Lab Sample ID: 720-68769-J-1 MSD
Matrix: Water
Analysis Batch: 296269

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	ND		25.0	25.6		ug/L		100	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Vinyl chloride	ND		25.0	28.0		ug/L		112	50 - 137	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

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Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-295861/1-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295861

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
1,2-Dichlorobenzene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
1,3-Dichlorobenzene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
1,4-Dichlorobenzene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4,5-Trichlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4,6-Trichlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4-Dichlorophenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4-Dimethylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4-Dinitrophenol	ND		40	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,4-Dinitrotoluene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2,6-Dinitrotoluene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Chloronaphthalene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Chlorophenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Methylnaphthalene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Methylphenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
2-Nitrophenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
3,3'-Dichlorobenzidine	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
3-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Bromophenyl phenyl ether	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Chloro-3-methylphenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Chloroaniline	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Nitroaniline	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
4-Nitrophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Acenaphthene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Acenaphthylene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Aniline	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-295861/1-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295861

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzidine	ND		40	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzo[a]anthracene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzo[a]pyrene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzo[b]fluoranthene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzo[g,h,i]perylene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzo[k]fluoranthene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzoic acid	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Benzyl alcohol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Bis(2-chloroethyl)ether	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Butyl benzyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Chrysene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Dibenz(a,h)anthracene	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Dibenzofuran	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Diethyl phthalate	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Dimethyl phthalate	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Di-n-butyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Di-n-octyl phthalate	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Fluoranthene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Fluorene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Hexachlorobenzene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Hexachlorobutadiene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Hexachlorocyclopentadiene	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Hexachloroethane	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Isophorone	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Naphthalene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Nitrobenzene	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
N-Nitrosodiphenylamine	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Pentachlorophenol	ND		20	ug/L		11/23/15 13:07	11/25/15 13:06	1
Phenanthrene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Phenol	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
Pyrene	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		11/23/15 13:07	11/25/15 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*50 - 120*	*11/23/15 13:07*	*11/25/15 13:06*	*1*
2-Fluorophenol (Surr)	*62*		*30 - 120*	*11/23/15 13:07*	*11/25/15 13:06*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*40 - 120*	*11/23/15 13:07*	*11/25/15 13:06*	*1*
Nitrobenzene-d5 (Surr)	*58*		*45 - 120*	*11/23/15 13:07*	*11/25/15 13:06*	*1*
Terphenyl-d14 (Surr)	*78*		*10 - 150*	*11/23/15 13:07*	*11/25/15 13:06*	*1*
Phenol-d6 (Surr)	*57*		*35 - 120*	*11/23/15 13:07*	*11/25/15 13:06*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-295861/2-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	61.4		ug/L		61	25 - 84
1,2-Dichlorobenzene	100	59.0		ug/L		59	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	71.0		ug/L		70	44 - 113
1,3-Dichlorobenzene	100	57.0		ug/L		57	20 - 80
1,4-Dichlorobenzene	100	63.3		ug/L		63	22 - 81
2,4,5-Trichlorophenol	100	79.1		ug/L		79	24 - 121
2,4,6-Trichlorophenol	100	80.5		ug/L		80	20 - 121
2,4-Dichlorophenol	100	72.8		ug/L		73	23 - 113
2,4-Dimethylphenol	100	68.6		ug/L		69	39 - 94
2,4-Dinitrophenol	200	174		ug/L		87	23 - 134
2,4-Dinitrotoluene	100	92.5		ug/L		92	54 - 115
2,6-Dinitrotoluene	100	84.6		ug/L		85	50 - 115
2-Chloronaphthalene	100	75.7		ug/L		76	34 - 102
2-Chlorophenol	100	63.8		ug/L		64	20 - 106
2-Methylnaphthalene	100	71.5		ug/L		71	34 - 98
2-Methylphenol	100	66.0		ug/L		66	36 - 103
2-Nitroaniline	100	69.4		ug/L		69	48 - 111
2-Nitrophenol	100	69.5		ug/L		70	20 - 117
3,3'-Dichlorobenzidine	100	69.7		ug/L		70	22 - 97
3-Nitroaniline	100	92.4		ug/L		92	51 - 116
4,6-Dinitro-2-methylphenol	200	173		ug/L		87	28 - 139
4-Bromophenyl phenyl ether	100	89.2		ug/L		89	42 - 113
4-Chloro-3-methylphenol	100	72.6		ug/L		73	44 - 110
4-Chloroaniline	100	68.5		ug/L		69	42 - 109
4-Chlorophenyl phenyl ether	100	85.1		ug/L		85	38 - 115
3-Methylphenol + 4-Methylphenol	100	68.4		ug/L		68	35 - 106
4-Nitroaniline	100	82.0		ug/L		82	50 - 116
4-Nitrophenol	200	150		ug/L		75	26 - 132
Acenaphthene	100	78.4		ug/L		78	37 - 107
Acenaphthylene	100	75.7		ug/L		76	39 - 107
Aniline	100	55.7		ug/L		56	27 - 115
Anthracene	100	85.5		ug/L		85	42 - 120
Benzidine	100	46.0		ug/L		46	5 - 150
Benzo[a]anthracene	100	89.3		ug/L		89	42 - 115
Benzo[a]pyrene	100	97.6		ug/L		98	41 - 117
Benzo[b]fluoranthene	100	91.0		ug/L		91	36 - 113
Benzo[g,h,i]perylene	100	115		ug/L		115	37 - 115
Benzo[k]fluoranthene	100	98.5		ug/L		98	42 - 122
Benzoic acid	100	61.2		ug/L		61	15 - 121
Benzyl alcohol	100	60.4		ug/L		60	39 - 106
Bis(2-chloroethoxy)methane	100	62.8		ug/L		63	47 - 104
Bis(2-chloroethyl)ether	100	60.8		ug/L		61	42 - 99
Bis(2-ethylhexyl) phthalate	100	84.9		ug/L		85	43 - 124
Butyl benzyl phthalate	100	85.1		ug/L		85	44 - 122
Chrysene	100	91.2		ug/L		91	42 - 118
Dibenz(a,h)anthracene	100	106		ug/L		106	40 - 114
Dibenzofuran	100	81.7		ug/L		82	37 - 113

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-295861/2-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	100	89.9		ug/L		90	51 - 120
Dimethyl phthalate	100	85.5		ug/L		86	49 - 113
Di-n-butyl phthalate	100	86.6		ug/L		87	47 - 125
Di-n-octyl phthalate	100	85.2		ug/L		85	42 - 125
Fluoranthene	100	90.4		ug/L		90	44 - 119
Fluorene	100	87.2		ug/L		87	39 - 116
Hexachlorobenzene	100	86.7		ug/L		87	43 - 112
Hexachlorobutadiene	100	57.6		ug/L		58	14 - 77
Hexachlorocyclopentadiene	100	39.6		ug/L		40	10 - 77
Hexachloroethane	100	53.9		ug/L		54	13 - 75
Indeno[1,2,3-cd]pyrene	100	98.7		ug/L		99	35 - 116
Isophorone	100	64.5		ug/L		65	48 - 107
Naphthalene	100	66.1		ug/L		66	33 - 95
Nitrobenzene	100	57.0		ug/L		57	42 - 99
N-Nitrosodi-n-propylamine	100	66.8		ug/L		67	44 - 111
N-Nitrosodiphenylamine	200	170		ug/L		85	46 - 116
Pentachlorophenol	200	179		ug/L		90	26 - 136
Phenanthrene	100	84.3		ug/L		84	43 - 120
Phenol	100	62.5		ug/L		63	25 - 99
Pyrene	100	85.8		ug/L		86	43 - 119
bis (2-chloroisopropyl) ether	100	58.6		ug/L		59	38 - 104

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*50 - 120*
2-Fluorophenol (Surr)	*54*		*30 - 120*
2,4,6-Tribromophenol (Surr)	*88*		*40 - 120*
Nitrobenzene-d5 (Surr)	*57*		*45 - 120*
Terphenyl-d14 (Surr)	*88*		*10 - 150*
Phenol-d6 (Surr)	*57*		*35 - 120*

Lab Sample ID: LCSD 440-295861/3-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295861

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	61.7		ug/L		62	25 - 84	0	35
1,2-Dichlorobenzene	100	58.6		ug/L		59	24 - 85	1	35
1,2-Diphenylhydrazine(as Azobenzene)	101	68.5		ug/L		68	44 - 113	4	35
1,3-Dichlorobenzene	100	56.2		ug/L		56	20 - 80	2	35
1,4-Dichlorobenzene	100	59.7		ug/L		60	22 - 81	6	35
2,4,5-Trichlorophenol	100	80.1		ug/L		80	24 - 121	1	35
2,4,6-Trichlorophenol	100	81.1		ug/L		81	20 - 121	1	35
2,4-Dichlorophenol	100	75.2		ug/L		75	23 - 113	3	35
2,4-Dimethylphenol	100	73.8		ug/L		74	39 - 94	7	35
2,4-Dinitrophenol	200	162		ug/L		81	23 - 134	7	35
2,4-Dinitrotoluene	100	88.1		ug/L		88	54 - 115	5	35
2,6-Dinitrotoluene	100	83.1		ug/L		83	50 - 115	2	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-295861/3-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295861

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	100	76.6		ug/L		77	34 - 102	1	35
2-Chlorophenol	100	67.0		ug/L		67	20 - 106	5	35
2-Methylnaphthalene	100	71.3		ug/L		71	34 - 98	0	35
2-Methylphenol	100	73.1		ug/L		73	36 - 103	10	35
2-Nitroaniline	100	68.1		ug/L		68	48 - 111	2	35
2-Nitrophenol	100	71.1		ug/L		71	20 - 117	2	35
3,3'-Dichlorobenzidine	100	19.2	J *	ug/L		19	22 - 97	113	35
3-Nitroaniline	100	74.1		ug/L		74	51 - 116	22	35
4,6-Dinitro-2-methylphenol	200	169		ug/L		84	28 - 139	3	35
4-Bromophenyl phenyl ether	100	86.5		ug/L		87	42 - 113	3	35
4-Chloro-3-methylphenol	100	75.5		ug/L		76	44 - 110	4	35
4-Chloroaniline	100	37.8	*	ug/L		38	42 - 109	58	35
4-Chlorophenyl phenyl ether	100	83.5		ug/L		84	38 - 115	2	35
3-Methylphenol + 4-Methylphenol	100	72.0		ug/L		72	35 - 106	5	35
4-Nitroaniline	100	80.3		ug/L		80	50 - 116	2	35
4-Nitrophenol	200	152		ug/L		76	26 - 132	1	35
Acenaphthene	100	77.5		ug/L		78	37 - 107	1	35
Acenaphthylene	100	75.4		ug/L		75	39 - 107	0	35
Aniline	100	40.1		ug/L		40	27 - 115	33	35
Anthracene	100	82.9		ug/L		83	42 - 120	3	35
Benzidine	100	34.1	J	ug/L		34	5 - 150	30	35
Benzo[a]anthracene	100	86.5		ug/L		86	42 - 115	3	35
Benzo[a]pyrene	100	92.5		ug/L		93	41 - 117	5	35
Benzo[b]fluoranthene	100	89.1		ug/L		89	36 - 113	2	35
Benzo[g,h,i]perylene	100	115		ug/L		115	37 - 115	1	35
Benzo[k]fluoranthene	100	92.5		ug/L		93	42 - 122	6	35
Benzoic acid	100	61.4		ug/L		61	15 - 121	0	35
Benzyl alcohol	100	67.5		ug/L		68	39 - 106	11	35
Bis(2-chloroethoxy)methane	100	63.4		ug/L		63	47 - 104	1	35
Bis(2-chloroethyl)ether	100	61.6		ug/L		62	42 - 99	1	35
Bis(2-ethylhexyl) phthalate	100	80.5		ug/L		80	43 - 124	5	35
Butyl benzyl phthalate	100	80.6		ug/L		81	44 - 122	5	35
Chrysene	100	86.5		ug/L		86	42 - 118	5	35
Dibenz(a,h)anthracene	100	102		ug/L		102	40 - 114	4	35
Dibenzofuran	100	83.1		ug/L		83	37 - 113	2	35
Diethyl phthalate	100	87.8		ug/L		88	51 - 120	2	35
Dimethyl phthalate	100	84.8		ug/L		85	49 - 113	1	35
Di-n-butyl phthalate	100	83.3		ug/L		83	47 - 125	4	35
Di-n-octyl phthalate	100	79.8		ug/L		80	42 - 125	7	35
Fluoranthene	100	88.7		ug/L		89	44 - 119	2	35
Fluorene	100	85.9		ug/L		86	39 - 116	1	35
Hexachlorobenzene	100	86.4		ug/L		86	43 - 112	0	35
Hexachlorobutadiene	100	56.7		ug/L		57	14 - 77	2	35
Hexachlorocyclopentadiene	100	36.6		ug/L		37	10 - 77	8	35
Hexachloroethane	100	49.7		ug/L		50	13 - 75	8	35
Indeno[1,2,3-cd]pyrene	100	108		ug/L		108	35 - 116	9	35
Isophorone	100	67.2		ug/L		67	48 - 107	4	35
Naphthalene	100	65.4		ug/L		65	33 - 95	1	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-295861/3-A
Matrix: Water
Analysis Batch: 296468

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 295861

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrobenzene	100	58.6		ug/L		59	42 - 99	3	35
N-Nitrosodi-n-propylamine	100	66.1		ug/L		66	44 - 111	1	35
N-Nitrosodiphenylamine	200	165		ug/L		83	46 - 116	3	35
Pentachlorophenol	200	159		ug/L		79	26 - 136	12	35
Phenanthrene	100	82.8		ug/L		83	43 - 120	2	35
Phenol	100	64.5		ug/L		64	25 - 99	3	35
Pyrene	100	81.9		ug/L		82	43 - 119	5	35
bis (2-chloroisopropyl) ether	100	58.6		ug/L		59	38 - 104	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*50 - 120*
2-Fluorophenol (Surr)	*56*		*30 - 120*
2,4,6-Tribromophenol (Surr)	*84*		*40 - 120*
Nitrobenzene-d5 (Surr)	*56*		*45 - 120*
Terphenyl-d14 (Surr)	*84*		*10 - 150*
Phenol-d6 (Surr)	*59*		*35 - 120*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-295886/1-A
Matrix: Water
Analysis Batch: 296261

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 295886

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	ug/L		11/23/15 14:15	11/24/15 19:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*69*		*36 - 90*	*11/23/15 14:15*	*11/24/15 19:09*	*1*

Lab Sample ID: LCS 440-295886/3-A
Matrix: Water
Analysis Batch: 296261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 295886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	1.41		ug/L		71	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*73*		*36 - 90*

Lab Sample ID: 440-128410-F-5-A MS
Matrix: Water
Analysis Batch: 296261

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 295886

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	1.3		1.99	2.49		ug/L		60	12 - 100

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: 440-128410-F-5-A MS
Matrix: Water
Analysis Batch: 296261

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 295886

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*69*		*36 - 90*

Lab Sample ID: 440-128410-F-5-B MSD
Matrix: Water
Analysis Batch: 296261

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 295886

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Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.3		1.96	2.20		ug/L		46	12 - 100	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*62*		*36 - 90*

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-296255/1
Matrix: Water
Analysis Batch: 296255

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	mg/L			11/24/15 16:46	1

Lab Sample ID: LCS 440-296255/2
Matrix: Water
Analysis Batch: 296255

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	990		mg/L		99	85 - 115

Lab Sample ID: 440-128346-A-1 DU
Matrix: Water
Analysis Batch: 296255

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	280		282		mg/L		0.7	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-128415-A-6 DU
Matrix: Water
Analysis Batch: 295833

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.98		8.010		SU		0.4	2

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-295719/1-A
Matrix: Water
Analysis Batch: 295727

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 295719

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050	mg/L		11/22/15 17:10	11/22/15 19:50	1

Lab Sample ID: LCS 440-295719/2-A
Matrix: Water
Analysis Batch: 295727

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 295719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	0.500	0.550		mg/L		110	80 - 120

Lab Sample ID: 440-128425-2 MS
Matrix: Water
Analysis Batch: 295727

Client Sample ID: Grab
Prep Type: Dissolved
Prep Batch: 295719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	ND	HF	0.500	0.418		mg/L		84	70 - 130

Lab Sample ID: 440-128425-2 MSD
Matrix: Water
Analysis Batch: 295727

Client Sample ID: Grab
Prep Type: Dissolved
Prep Batch: 295719

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.500	0.441		mg/L		88	70 - 130	5	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-296013/9
Matrix: Water
Analysis Batch: 296013

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	mg/L			11/23/15 20:55	1

Lab Sample ID: LCS 440-296013/10
Matrix: Water
Analysis Batch: 296013

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	200	205		mg/L		103	90 - 110

Lab Sample ID: 440-128336-A-1 MS
Matrix: Water
Analysis Batch: 296013

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	23		200	218		mg/L		98	70 - 120

Method: SM 5220D - COD (Continued)

Lab Sample ID: 440-128336-A-1 MSD
Matrix: Water
Analysis Batch: 296013

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	23		200	215		mg/L		96	70 - 120	1	15

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QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

GC/MS VOA

Analysis Batch: 296047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Total/NA	Water	8260B	
440-128428-F-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-128428-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-296047/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 440-296047/6	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 440-296047/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 296269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Total/NA	Water	8260B	
720-68769-J-1 MS	Matrix Spike	Total/NA	Water	8260B	
720-68769-J-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-296269/4	Lab Control Sample	Total/NA	Water	8260B	
MB 440-296269/3	Method Blank	Total/NA	Water	8260B	

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GC/MS Semi VOA

Prep Batch: 295861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Total/NA	Water	3520C	
LCS 440-295861/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-295861/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-295861/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 295886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128410-F-5-A MS	Matrix Spike	Total/NA	Water	3520C	
440-128410-F-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	
440-128425-2	Grab	Total/NA	Water	3520C	
LCS 440-295886/3-A	Lab Control Sample	Total/NA	Water	3520C	
MB 440-295886/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 296261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128410-F-5-A MS	Matrix Spike	Total/NA	Water	8270C SIM	295886
440-128410-F-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	295886
440-128425-2	Grab	Total/NA	Water	8270C SIM	295886
LCS 440-295886/3-A	Lab Control Sample	Total/NA	Water	8270C SIM	295886
MB 440-295886/1-A	Method Blank	Total/NA	Water	8270C SIM	295886

Analysis Batch: 296468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Total/NA	Water	8270C	295861
LCS 440-295861/2-A	Lab Control Sample	Total/NA	Water	8270C	295861
LCSD 440-295861/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	295861
MB 440-295861/1-A	Method Blank	Total/NA	Water	8270C	295861

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

General Chemistry

Prep Batch: 295719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Dissolved	Water	SM 4500 S2 B	
440-128425-2 MS	Grab	Dissolved	Water	SM 4500 S2 B	
440-128425-2 MSD	Grab	Dissolved	Water	SM 4500 S2 B	
LCS 440-295719/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
MB 440-295719/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 295727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128425-2	Grab	Dissolved	Water	SM 4500 S2 D	295719
440-128425-2 MS	Grab	Dissolved	Water	SM 4500 S2 D	295719
440-128425-2 MSD	Grab	Dissolved	Water	SM 4500 S2 D	295719
LCS 440-295719/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	295719
MB 440-295719/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	295719

Analysis Batch: 295833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128415-A-6 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
440-128425-2	Grab	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 296013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128336-A-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-128336-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
440-128425-1	Composite	Total/NA	Water	SM 5220D	
LCS 440-296013/10	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 440-296013/9	Method Blank	Total/NA	Water	SM 5220D	

Analysis Batch: 296255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-128346-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
440-128425-1	Composite	Total/NA	Water	SM 2540D	
LCS 440-296255/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-296255/1	Method Blank	Total/NA	Water	SM 2540D	

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC/24 hour Composite

TestAmerica Job ID: 440-128425-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312007A	07-31-16 *
New Mexico	State Program	6	N/A	01-29-16
Northern Mariana Islands	State Program	9	MP0002	01-29-16
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	07-08-18

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine CA 92614-5817 (949) 261-1022 / FAX (949) 260-3297

CHAIN OF CUSTODY FORM

Client Name/Address: Andrew Miller
Jacob and Hefner Associates P.C.
15375 Barranca Parkway J-101
Irvine, CA 92618

Project Number:44003641

PO#:

Project Manager:Urvashi Patel

Phone Number: 949-453-1045

Email: Amiller@jacobandhefner.com

Omega Chemical- SDLAC

Sampler: **Efrain Figueroa**

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservation	5220D-COD	2540D-TSS	SM4500_S2-B-Dissolved Sulfide	8260-LL-VOCs+oxy+Ks+F113	8270_Sim-1,4-DXN	8270-Default	SM4500_H+ -pH	8260_LL-A+A+2CVE			Special Instructions
Composite		500ml Plastic	1	11/18-19/15 13:54	H2SO4	X										Isco Start:
Composite		1L Plastic	1	11/18-19/15 13:54	Unpreserved		X									Nov. 18th 2015 @1230
Grab		500ml Plastic	1	11-19-15 13:58	NaOH			X								Isco End:
Grab		40ml VOA	3	11-19-15 13:58	HCl				X							Nov. 19th 2015 @1230
Grab		1L Amber Gl	2	11-19-15 13:58	Unpreserved					X						
Grab		1L Amber Gl	2	11-19-15 13:58	Unpreserved						X					field pH 8.5
Grab		500ml Plastic	1	11-19-15 13:58	Unpreserved							X				
Grab		40ml VOA	3	11-19-15 13:58	Unpreserved								X			

TA Sampler Hours: 3 Hrs

440-128425 Chain of Custody

Relinquished By:	Date/Time:	Received by:	Date/Time:
Efrain Figueroa	11-19-15 15:48		
		Received in Lab by: [signature]	11/19/15 15:48

Turnaround Time: (Check)
Same Day ____ 72 Hours ____
24 Hours ____ 5 Days ____
48 Hours ____ Normal X

Sample Integrity: (Check)
Intact ✓ On Ice ✓

Note: By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

ATH

3.9/3.0 IR 74

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-128425-1

Login Number: 128425
List Number: 1
Creator: Skinner, Alma

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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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.	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	

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OMEGA CHEMICAL SITE PRP ORGANIZED GROUP
1322 Scott Street
Suite 104
San Diego, Ca 92106
(619) 546-8377
(619) 546-9980 FAX
e-mail: edm@demaximis.com

April 11, 2016

Ms. Grace Robinson Hyde
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601-1400

Subject: Self-Monitoring Report -1st Quarter 2016
Permit Number 20039, Surcharge Account Number 2113183

Dear Ms. Grace Robinson Hyde,

This letter transmits the 1st Quarter 2016 Self-Monitoring Report (SMR) for the Omega Chemical Site located at 12520 East Whittier Blvd, Whittier, California. Feel free to contact me if you need any additional information.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

SANITATION DISTRICTS OF LOS ANGELES COUNTY

GRACE ROBINSON HYDE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

Permit Number: 20039
Facility ID: 2113183

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 01/01/2016 To: 03/31/2016 Report Due No Later Than : 04/15/2016

Company Name: **Omega Chemical Site PRP Group LLC**
Wastewater Discharge Address: **12520 WHITTIER Blvd Whittier, CA, 90602**
Sample Location: **20039A**
Mailing Address: **1322 Scott Street # 104 San Diego, CA, 92106**
Industrial Wastewater Contact Name and Phone Number: **Mr. Ravi Subramanian** **949-752-5452 x277 - Business**

Has Ownership or Occupancy Changed Since the Last Report? ☐ Yes ☑ No

(Print) Name of Company Collecting Wastewater Sample: Test America

(Print) Sample Date: 2/18/16

Daily Wastewater Discharge for Reporting Period
Average: 6,431 GPD
Maximum: 11,788 GPD

Method For Determining Wastewater Flow for Sampling Day
☑ Direct Measurement
☐ Adjusted Metered Water Supply
☐ No Discharge During Reporting Period

Type of Composite Sample
☑ Time Composite
☐ Flow Proportioned Composite

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow			11		gpm	10256
Z01 Sample Day Total Flow			5490		GPD	10256
101 pH	GRAB	Federal Daily Minimum 5.0 S.U. Local Daily Minimum 6.0 S.U.	8.61		S.U.	10256
151 Solids, Suspended	COMPOSITE		3.7		mg/L	10256
252 Sulfide, Soluble	GRAB	Local At Any Time 0.1 mg/L	ND	0.05	mg/L	10256
403 COD, Total	COMPOSITE		79		mg/L	10256
696 1,4-Dioxane	GRAB		23		ug/L	10256
T09 TTO, Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
601 Methylene Chloride	GRAB	31.2 PPB	ND	5	ug/L	10256
602 Chloroform	GRAB	13 PPB	ND	1	ug/L	10256
603 1,1,1-Trichloroethane	GRAB		ND	1	ug/L	10256
604 Carbon Tetrachloride	GRAB	10 PPB	ND	0.5	ug/L	10256
605 1,1-Dichloroethene	GRAB		ND	1	ug/L	10256
606 Trichloroethylene	GRAB	13.4 PPB	ND	1	ug/L	10256
607 Tetrachloroethylene	GRAB	268.6 PPB	ND	1	ug/L	10256
608 Bromodichloromethane	GRAB		ND	1	ug/L	10256
609 Dibromochloromethane	GRAB		ND	1	ug/L	10256
610 Bromoform	GRAB		ND	1	ug/L	10256
611 Chlorobenzene	GRAB		ND	1	ug/L	10256
612 Vinyl Chloride	GRAB	20 PPB	ND	0.5	ug/L	10256
613 o-Dichlorobenzene	GRAB		ND	1	ug/L	10256
614 m-Dichlorobenzene	GRAB			1	ug/L	10256

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 04/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **01/01/2016** To: **03/31/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
615 p-Dichlorobenzene	GRAB	10 PPB	ND	1	ug/L	10256
616 1,1-Dichloroethane	GRAB	60 PPB	ND	1	ug/L	10256
618 1,1,2-Trichloroethane	GRAB	30 PPB	ND	1	ug/L	10256
619 1,2-Dichloroethane	GRAB	4.6 PPB	ND	1	ug/L	10256
620 Benzene	GRAB	20 PPB	ND	0.5	ug/L	10256
621 Toluene	GRAB		ND	1	ug/L	10256
624 Ethyl Benzene	GRAB		ND	1	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB		ND	1	ug/L	10256
646 Bromomethane	GRAB		ND	1	ug/L	10256
647 Chloroethane	GRAB		ND	1	ug/L	10256
648 2-Chloroethylvinylether	GRAB		ND	2	ug/L	10256
649 Chloromethane	GRAB		ND	1	ug/L	10256
650 1,2-Dichloropropane	GRAB		ND	1	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB		ND	1	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
800 Acenaphthene	GRAB		ND	9.8	ug/L	10256
801 Acenaphthylene	GRAB		ND	9.8	ug/L	10256
802 Anthracene	GRAB		ND	9.8	ug/L	10256
803 Benzidine	GRAB		ND	39	ug/L	10256
804 Benzo(a)anthracene	GRAB		ND	9.8	ug/L	10256
805 Benzo(a)pyrene	GRAB		ND	9.8	ug/L	10256
806 Benzo(b)fluoranthene	GRAB		ND	9.8	ug/L	10256
807 Benzo(g.h.i.)perylene	GRAB		ND	9.8	ug/L	10256
808 Benzo(k)fluoranthene	GRAB		ND	9.8	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB		ND	9.8	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB		ND	9.8	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB		ND	9.8	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB		ND	20	ug/L	10256
813 4-bromophenyl Phenylether	GRAB		ND	9.8	ug/L	10256
814 butylbenzyl Phthalate	GRAB		ND	20	ug/L	10256
815 2-Chloronaphthalene	GRAB		ND	9.8	ug/L	10256
816 4-Chlorophenylphenylether	GRAB		ND	9.8	ug/L	10256
817 Chrysene	GRAB		ND	9.8	ug/L	10256
818 dibenzo(a,h)Anthracene	GRAB		ND	20	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB		ND	20	ug/L	10256
823 diethyl Phthalate	GRAB		ND	9.8	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 04/15/2016

Permit Number: 20039

Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **01/01/2016** To: **03/31/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
824 dimethyl Phthalate	GRAB		ND	9.8	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	20	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	20	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	20	ug/L	10256
830 Fluoranthene	GRAB		ND	9.8	ug/L	10256
831 Fluorene	GRAB		ND	9.8	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	9.8	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	9.8	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	20	ug/L	10256
835 Hexachloroethane	GRAB		ND	9.8	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	20	ug/L	10256
837 Isophorone	GRAB		ND	9.8	ug/L	10256
838 Naphthalene	GRAB	10 PPB	ND	9.8	ug/L	10256
839 Nitrobenzene	GRAB		ND	20	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	9.8	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	9.8	ug/L	10256
842 Phenanthrene	GRAB		ND	9.8	ug/L	10256
843 Pyrene	GRAB		ND	9.8	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	9.8	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	39	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	20	ug/L	10256
851 2-Nitrophenol	GRAB		ND	9.8	ug/L	10256
852 4-Nitrophenol	GRAB		ND	20	ug/L	10256
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
855 Phenol	GRAB		ND	9.8	ug/L	10256
856 2,4,6-Trichlorophenol	GRAB		ND	20	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	9.8	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 04/15/2016

Permit Number: 20039

Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **01/01/2016** To: **03/31/2016**

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the self-monitoring report form.

(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.

(3) Daily and/or At Any Time permit limits are included on this form for convenience. For a full list of all applicable permit limits, including monthly and 4-day averages, refer to your Permit Data Sheet.

(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.

(5) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.

(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.

(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: Ed Modiano - OPOG Project Coordinator Date: 4/11/16

Print name of official: Ed Modiano Title: Project Coordinator

LACSD USE ONLY Monitoring ID: 483488

Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

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: 440-138545-1
Client Project/Site: Omega Chemical - SDLAC

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
3/16/2016 3:47:36 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC

TestAmerica Job ID: 440-138545-1

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-138545-1	Composite	Water	02/18/16 14:15	02/18/16 17:20
440-138545-2	Grab	Water	02/18/16 14:25	02/18/16 17:20

Job ID: 440-138545-1

Laboratory: TestAmerica Irvine

4

Narrative

Job Narrative
440-138545-1

Comments
No additional comments.

Receipt
The samples were received on 2/18/2016 5:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.0° C.

GC/MS VOA
Method(s) 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples was received preserved with hydrochloric acid: (440-138107-E-17 MS) and (440-138107-E-17 MSD). The requested target analyte list includes 2-chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

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

GC/MS Semi VOA
Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-313061 and analytical batch 440-314504. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The percent recoveries of 3,3'-dichlorobenzidine and 4-chloroaniline in the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) of preparation batch 313061 failed below lower acceptance limits. These analytes are known historically as poor performers. There is possible low bias for these analytes in the affected samples.

Method(s) 8270C: The percent recoveries in the laboratory control sample duplicate (LCSD) of preparation batch 313061 failed below lower acceptance limits for the following analytes: 1,2-diphenylhydrazine; 4-chloroaniline; 4-nitroaniline; acenaphthylene; N-nitrosodiphenylamine; and bis(2-chloroethoxy)methane. Many of these analytes are known historically as poor performers. The affected samples could not be reextracted within hold times, thus the data is reported with a possible low bias for these analytes.

Method(s) 8270C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 440-313061 recovered outside control limits for the following analytes: 1,2-diphenylhydrazine; 3-nitroaniline; 4-chloroaniline; 4-nitroaniline; 3,3'-dichlorobenzidine; benzidine; acenaphthylene; N-nitrosodiphenylamine; bis(2-chloroethoxy)methane; benzo(a)pyrene; and benzyl alcohol.

Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-315417 and analytical batch 440-316348. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-312990 and analytical batch 440-313405. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: Grab (440-138545-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Job ID: 440-138545-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

4

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

Organic Prep
Method(s) 3520C: The following sample was prepared outside of preparation holding time due to re-extraction : Grab (440-138545-2).

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.

Client Sample ID: Composite

Lab Sample ID: 440-138545-1

Date Collected: 02/18/16 14:15
Date Received: 02/18/16 17:20

Matrix: Water

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General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	3.7		1.4	mg/L			02/20/16 10:43	1
Chemical Oxygen Demand	79		20	mg/L			02/22/16 16:42	1

Client Sample ID: Grab

Lab Sample ID: 440-138545-2

Date Collected: 02/18/16 14:25
Date Received: 02/18/16 17:20

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			02/23/16 21:14	1
Acrolein	ND		5.0	ug/L			02/23/16 03:30	1
Acrylonitrile	ND		2.0	ug/L			02/23/16 03:30	1
Benzene	ND		0.50	ug/L			02/23/16 21:14	1
Bromobenzene	ND		1.0	ug/L			02/23/16 21:14	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			02/23/16 03:30	1
Bromochloromethane	ND		1.0	ug/L			02/23/16 21:14	1
Bromodichloromethane	ND		1.0	ug/L			02/23/16 21:14	1
Bromoform	ND		1.0	ug/L			02/23/16 21:14	1
Total Volatile Organic Compounds	ND		150	ug/L			02/23/16 03:30	1
Bromomethane	ND		1.0	ug/L			02/23/16 21:14	1
Carbon tetrachloride	ND		0.50	ug/L			02/23/16 21:14	1
Chlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
Chloroethane	ND		1.0	ug/L			02/23/16 21:14	1
Chloroform	ND		1.0	ug/L			02/23/16 21:14	1
Chloromethane	ND		1.0	ug/L			02/23/16 21:14	1
2-Chlorotoluene	ND		1.0	ug/L			02/23/16 21:14	1
4-Chlorotoluene	ND		1.0	ug/L			02/23/16 21:14	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			02/23/16 21:14	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			02/23/16 21:14	1
Dibromochloromethane	ND		1.0	ug/L			02/23/16 21:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			02/23/16 21:14	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			02/23/16 21:14	1
Dibromomethane	ND		1.0	ug/L			02/23/16 21:14	1
1,2-Dichlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,3-Dichlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,4-Dichlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
Dichlorodifluoromethane	ND		1.0	ug/L			02/23/16 21:14	1
1,1-Dichloroethane	ND		1.0	ug/L			02/23/16 21:14	1
1,2-Dichloroethane	ND		1.0	ug/L			02/23/16 21:14	1
1,1-Dichloroethene	ND		1.0	ug/L			02/23/16 21:14	1
1,2-Dichloropropane	ND		1.0	ug/L			02/23/16 21:14	1
1,3-Dichloropropane	ND		1.0	ug/L			02/23/16 21:14	1
2,2-Dichloropropane	ND		1.0	ug/L			02/23/16 21:14	1
1,1-Dichloropropene	ND		1.0	ug/L			02/23/16 21:14	1
Ethylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
Hexachlorobutadiene	ND		1.0	ug/L			02/23/16 21:14	1
Isopropylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
Methylene Chloride	ND		5.0	ug/L			02/23/16 21:14	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			02/23/16 21:14	1

Client Sample ID: Grab

Lab Sample ID: 440-138545-2

Date Collected: 02/18/16 14:25
Date Received: 02/18/16 17:20

Matrix: Water

5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			02/23/16 21:14	1
Naphthalene	ND		1.0	ug/L			02/23/16 21:14	1
n-Butylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
N-Propylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
o-Xylene	ND		1.0	ug/L			02/23/16 21:14	1
p-Isopropyltoluene	ND		1.0	ug/L			02/23/16 21:14	1
sec-Butylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
Styrene	ND		1.0	ug/L			02/23/16 21:14	1
tert-Butylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			02/23/16 21:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			02/23/16 21:14	1
Tetrachloroethene	ND		1.0	ug/L			02/23/16 21:14	1
Toluene	ND		1.0	ug/L			02/23/16 21:14	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			02/23/16 21:14	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			02/23/16 21:14	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,1,1-Trichloroethane	ND		1.0	ug/L			02/23/16 21:14	1
1,1,2-Trichloroethane	ND		1.0	ug/L			02/23/16 21:14	1
Trichloroethene	ND		1.0	ug/L			02/23/16 21:14	1
Trichlorofluoromethane	ND		1.0	ug/L			02/23/16 21:14	1
1,2,3-Trichloropropane	ND		1.0	ug/L			02/23/16 21:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			02/23/16 21:14	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			02/23/16 21:14	1
Vinyl chloride	ND		0.50	ug/L			02/23/16 21:14	1
Total Volatile Organic Compounds	ND		150	ug/L			02/23/16 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*02/23/16 03:30*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*02/23/16 03:30*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*02/23/16 21:14*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*02/23/16 03:30*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*02/23/16 21:14*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*02/23/16 21:14*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**23**		2.4	ug/L		02/23/16 10:07	02/24/16 21:37	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*45*		*36 - 90*	*02/23/16 10:07*	*02/24/16 21:37*	*5*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
1,2-Dichlorobenzene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
1,2-Diphenylhydrazine(as Azobenzene)	ND	*	20	ug/L		02/23/16 12:43	03/01/16 16:17	1
1,3-Dichlorobenzene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
1,4-Dichlorobenzene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1

Client Sample ID: Grab

Date Collected: 02/18/16 14:25
Date Received: 02/18/16 17:20

Lab Sample ID: 440-138545-2

Matrix: Water

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,4,6-Trichlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,4-Dichlorophenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,4-Dimethylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,4-Dinitrophenol	ND		39	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,4-Dinitrotoluene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2,6-Dinitrotoluene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Chloronaphthalene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Chlorophenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Methylnaphthalene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Methylphenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Nitroaniline	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
2-Nitrophenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
3,3'-Dichlorobenzidine	ND	*	20	ug/L		02/23/16 12:43	03/01/16 16:17	1
3-Methylphenol + 4-Methylphenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
3-Nitroaniline	ND	*	20	ug/L		02/23/16 12:43	03/01/16 16:17	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Bromophenyl phenyl ether	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Chloro-3-methylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Chloroaniline	ND	*	9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Chlorophenyl phenyl ether	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Nitroaniline	ND	*	20	ug/L		02/23/16 12:43	03/01/16 16:17	1
4-Nitrophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Acenaphthene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Acenaphthylene	ND	*	9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Aniline	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Anthracene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzidine	ND	*	39	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzo[a]anthracene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzo[a]pyrene	ND	*	9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzo[b]fluoranthene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzo[g,h,i]perylene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzo[k]fluoranthene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzoic acid	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Benzyl alcohol	ND	*	20	ug/L		02/23/16 12:43	03/01/16 16:17	1
bis (2-chloroisopropyl) ether	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Bis(2-chloroethoxy)methane	ND	*	9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Bis(2-chloroethyl)ether	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Butyl benzyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Chrysene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Dibenz(a,h)anthracene	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Dibenzofuran	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Diethyl phthalate	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Dimethyl phthalate	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Di-n-butyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Di-n-octyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Fluoranthene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Fluorene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1

Client Sample ID: Grab

Date Collected: 02/18/16 14:25
Date Received: 02/18/16 17:20

Lab Sample ID: 440-138545-2

Matrix: Water

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Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Hexachlorobutadiene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Hexachlorocyclopentadiene	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Hexachloroethane	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Isophorone	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Naphthalene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Nitrobenzene	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
N-Nitrosodimethylamine	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
N-Nitrosodi-n-propylamine	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
N-Nitrosodiphenylamine	ND	*	9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Pentachlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 16:17	1
Phenanthrene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Phenol	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1
Pyrene	ND		9.8	ug/L		02/23/16 12:43	03/01/16 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*70*		*40 - 120*	*02/23/16 12:43*	*03/01/16 16:17*	*1*
2-Fluorobiphenyl	*68*		*50 - 120*	*02/23/16 12:43*	*03/01/16 16:17*	*1*
2-Fluorophenol (Surr)	*55*		*30 - 120*	*02/23/16 12:43*	*03/01/16 16:17*	*1*
Nitrobenzene-d5 (Surr)	*69*		*45 - 120*	*02/23/16 12:43*	*03/01/16 16:17*	*1*
Phenol-d6 (Surr)	*37*		*35 - 120*	*02/23/16 12:43*	*03/01/16 16:17*	*1*
Terphenyl-d14 (Surr)	*78*		*10 - 150*	*02/23/16 12:43*	*03/01/16 16:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.61	HF	0.100	SU			02/19/16 12:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050	mg/L		02/22/16 14:23	02/22/16 16:10	1

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC

TestAmerica Job ID: 440-138545-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV

Protocol References:

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

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC

TestAmerica Job ID: 440-138545-1

Client Sample ID: Composite

Lab Sample ID: 440-138545-1
Matrix: Water

Date Collected: 02/18/16 14:15
Date Received: 02/18/16 17:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	700 mL	1000 mL	312534	02/20/16 10:43	MMH	TAL IRV
Total/NA	Analysis	SM 5220D		1	0.625 mL	2.5 mL	312873	02/22/16 16:42	MSM	TAL IRV

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Client Sample ID: Grab

Lab Sample ID: 440-138545-2
Matrix: Water

Date Collected: 02/18/16 14:25
Date Received: 02/18/16 17:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	312804	02/23/16 03:30	RM	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	313173	02/23/16 21:14	AA	TAL IRV
Total/NA	Prep	3520C			1020 mL	2.0 mL	313061	02/23/16 12:43	GCY	TAL IRV
Total/NA	Analysis	8270C		1	1020 mL	2.0 mL	314504	03/01/16 16:17	DF	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	312990	02/23/16 10:07	GCY	TAL IRV
Total/NA	Analysis	8270C SIM		5	1040 mL	1 mL	313405	02/24/16 21:37	AI	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1		50 mL	312370	02/19/16 12:41	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			40 mL	40 mL	312795	02/22/16 14:23	MSM	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	40 mL	40 mL	312871	02/22/16 16:10	MSM	TAL IRV

Laboratory References:
TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-312804/4
Matrix: Water
Analysis Batch: 312804

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			02/22/16 19:09	1
Acrylonitrile	ND		2.0	ug/L			02/22/16 19:09	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			02/22/16 19:09	1
Total Volatile Organic Compounds	ND		150	ug/L			02/22/16 19:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/22/16 19:09*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*02/22/16 19:09*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*02/22/16 19:09*	*1*

Lab Sample ID: LCS 440-312804/5
Matrix: Water
Analysis Batch: 312804

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	25.0	26.3		ug/L		105	37 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: 440-138107-E-17 MS
Matrix: Water
Analysis Batch: 312804

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: 440-138107-E-17 MSD
Matrix: Water
Analysis Batch: 312804

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 140	NC	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

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

Lab Sample ID: MB 440-313173/4
Matrix: Water
Analysis Batch: 313173

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			02/23/16 18:27	1
Benzene	ND		0.50	ug/L			02/23/16 18:27	1
Bromobenzene	ND		1.0	ug/L			02/23/16 18:27	1
Bromochloromethane	ND		1.0	ug/L			02/23/16 18:27	1
Bromodichloromethane	ND		1.0	ug/L			02/23/16 18:27	1
Bromoform	ND		1.0	ug/L			02/23/16 18:27	1
Bromomethane	ND		1.0	ug/L			02/23/16 18:27	1
Carbon tetrachloride	ND		0.50	ug/L			02/23/16 18:27	1
Chlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
Chloroethane	ND		1.0	ug/L			02/23/16 18:27	1
Chloroform	ND		1.0	ug/L			02/23/16 18:27	1
Chloromethane	ND		1.0	ug/L			02/23/16 18:27	1
2-Chlorotoluene	ND		1.0	ug/L			02/23/16 18:27	1
4-Chlorotoluene	ND		1.0	ug/L			02/23/16 18:27	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			02/23/16 18:27	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			02/23/16 18:27	1
Dibromochloromethane	ND		1.0	ug/L			02/23/16 18:27	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			02/23/16 18:27	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			02/23/16 18:27	1
Dibromomethane	ND		1.0	ug/L			02/23/16 18:27	1
1,2-Dichlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,3-Dichlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,4-Dichlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
Dichlorodifluoromethane	ND		1.0	ug/L			02/23/16 18:27	1
1,1-Dichloroethane	ND		1.0	ug/L			02/23/16 18:27	1
1,2-Dichloroethane	ND		1.0	ug/L			02/23/16 18:27	1
1,1-Dichloroethene	ND		1.0	ug/L			02/23/16 18:27	1
1,2-Dichloropropane	ND		1.0	ug/L			02/23/16 18:27	1
1,3-Dichloropropane	ND		1.0	ug/L			02/23/16 18:27	1
2,2-Dichloropropane	ND		1.0	ug/L			02/23/16 18:27	1
1,1-Dichloropropene	ND		1.0	ug/L			02/23/16 18:27	1
Ethylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
Hexachlorobutadiene	ND		1.0	ug/L			02/23/16 18:27	1
Isopropylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
Methylene Chloride	ND		5.0	ug/L			02/23/16 18:27	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			02/23/16 18:27	1
m,p-Xylene	ND		1.0	ug/L			02/23/16 18:27	1
Naphthalene	ND		1.0	ug/L			02/23/16 18:27	1
n-Butylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
N-Propylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
o-Xylene	ND		1.0	ug/L			02/23/16 18:27	1
p-Isopropyltoluene	ND		1.0	ug/L			02/23/16 18:27	1
sec-Butylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
Styrene	ND		1.0	ug/L			02/23/16 18:27	1
tert-Butylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			02/23/16 18:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			02/23/16 18:27	1
Tetrachloroethene	ND		1.0	ug/L			02/23/16 18:27	1

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

Lab Sample ID: MB 440-313173/4
Matrix: Water
Analysis Batch: 313173

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	ug/L			02/23/16 18:27	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			02/23/16 18:27	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			02/23/16 18:27	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,1,1-Trichloroethane	ND		1.0	ug/L			02/23/16 18:27	1
1,1,2-Trichloroethane	ND		1.0	ug/L			02/23/16 18:27	1
Trichloroethene	ND		1.0	ug/L			02/23/16 18:27	1
Trichlorofluoromethane	ND		1.0	ug/L			02/23/16 18:27	1
1,2,3-Trichloropropane	ND		1.0	ug/L			02/23/16 18:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			02/23/16 18:27	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			02/23/16 18:27	1
Vinyl chloride	ND		0.50	ug/L			02/23/16 18:27	1
Total Volatile Organic Compounds	ND		150	ug/L			02/23/16 18:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/23/16 18:27*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*02/23/16 18:27*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*02/23/16 18:27*	*1*

Lab Sample ID: LCS 440-313173/5
Matrix: Water
Analysis Batch: 313173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	31.3	30.2		ug/L		97	10 - 150
Benzene	25.0	25.1		ug/L		101	68 - 130
Bromobenzene	25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	25.0	25.1		ug/L		101	70 - 130
Bromodichloromethane	25.0	26.4		ug/L		106	70 - 132
Bromoform	25.0	27.9		ug/L		112	60 - 148
Bromomethane	25.0	25.8		ug/L		103	64 - 139
Carbon tetrachloride	25.0	27.2		ug/L		109	60 - 150
Chlorobenzene	25.0	23.4		ug/L		94	70 - 130
Chloroethane	25.0	25.0		ug/L		100	64 - 135
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	25.3		ug/L		101	47 - 140
2-Chlorotoluene	25.0	24.8		ug/L		99	70 - 130
4-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 133
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	70 - 133
Dibromochloromethane	25.0	26.3		ug/L		105	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	25.2		ug/L		101	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.7		ug/L		103	70 - 130
Dibromomethane	25.0	25.6		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	24.6		ug/L		99	70 - 130

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

Lab Sample ID: LCS 440-313173/5
Matrix: Water
Analysis Batch: 313173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	25.0	24.8		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	25.9		ug/L		104	29 - 150
1,1-Dichloroethane	25.0	24.5		ug/L		98	64 - 130
1,2-Dichloroethane	25.0	26.7		ug/L		107	57 - 138
1,1-Dichloroethene	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloropropane	25.0	25.3		ug/L		101	67 - 130
1,3-Dichloropropane	25.0	24.8		ug/L		99	70 - 130
2,2-Dichloropropane	25.0	27.4		ug/L		109	68 - 141
1,1-Dichloropropene	25.0	26.2		ug/L		105	70 - 130
Ethylbenzene	25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	26.6		ug/L		106	10 - 150
Isopropylbenzene	25.0	26.3		ug/L		105	70 - 136
Methylene Chloride	25.0	24.5		ug/L		98	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	26.4		ug/L		106	63 - 131
m,p-Xylene	25.0	26.4		ug/L		106	70 - 130
Naphthalene	25.0	25.9		ug/L		104	60 - 140
n-Butylbenzene	25.0	27.5		ug/L		110	65 - 150
N-Propylbenzene	25.0	26.5		ug/L		106	67 - 139
o-Xylene	25.0	26.2		ug/L		105	70 - 130
p-Isopropyltoluene	25.0	26.2		ug/L		105	70 - 132
sec-Butylbenzene	25.0	26.0		ug/L		104	70 - 138
Styrene	25.0	26.7		ug/L		107	70 - 134
tert-Butylbenzene	25.0	26.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.3		ug/L		101	60 - 141
1,1,2,2-Tetrachloroethane	25.0	24.1		ug/L		97	63 - 130
Tetrachloroethene	25.0	25.2		ug/L		101	70 - 130
Toluene	25.0	25.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	26.4		ug/L		106	70 - 130
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	70 - 132
1,2,3-Trichlorobenzene	25.0	26.1		ug/L		105	60 - 140
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		108	60 - 140
1,1,1-Trichloroethane	25.0	26.7		ug/L		107	70 - 130
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	26.9		ug/L		107	60 - 150
1,2,3-Trichloropropane	25.0	24.3		ug/L		97	63 - 130
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 135
1,3,5-Trimethylbenzene	25.0	26.4		ug/L		106	70 - 136
Vinyl chloride	25.0	25.1		ug/L		100	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

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

Lab Sample ID: 440-137866-B-11 MS
Matrix: Water
Analysis Batch: 313173

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		31.3	31.6		ug/L		101	10 - 150
Benzene	0.81		25.0	25.6		ug/L		99	66 - 130
Bromobenzene	ND		25.0	24.1		ug/L		97	70 - 130
Bromochloromethane	ND		25.0	24.4		ug/L		98	70 - 130
Bromodichloromethane	ND		25.0	25.8		ug/L		103	70 - 138
Bromoform	ND		25.0	27.3		ug/L		109	59 - 150
Bromomethane	ND		25.0	25.5		ug/L		102	62 - 131
Carbon tetrachloride	ND		25.0	27.8		ug/L		111	60 - 150
Chlorobenzene	ND		25.0	23.2		ug/L		93	70 - 130
Chloroethane	ND		25.0	24.6		ug/L		98	68 - 130
Chloroform	ND		25.0	25.4		ug/L		101	70 - 130
Chloromethane	ND		25.0	25.5		ug/L		102	39 - 144
2-Chlorotoluene	ND		25.0	24.6		ug/L		99	70 - 130
4-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	25.7		ug/L		103	70 - 133
Dibromochloromethane	ND		25.0	25.0		ug/L		100	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	24.0		ug/L		96	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	25.1		ug/L		100	70 - 131
Dibromomethane	ND		25.0	24.9		ug/L		100	70 - 130
1,2-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.0		ug/L		96	70 - 130
Dichlorodifluoromethane	ND		25.0	26.0		ug/L		104	25 - 142
1,1-Dichloroethane	ND		25.0	24.3		ug/L		97	65 - 130
1,2-Dichloroethane	16		25.0	39.5		ug/L		93	56 - 146
1,1-Dichloroethene	ND		25.0	26.1		ug/L		104	70 - 130
1,2-Dichloropropane	ND		25.0	24.8		ug/L		99	69 - 130
1,3-Dichloropropane	ND		25.0	24.4		ug/L		97	70 - 130
2,2-Dichloropropane	ND		25.0	28.7		ug/L		115	69 - 138
1,1-Dichloropropene	ND		25.0	26.6		ug/L		107	64 - 130
Ethylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	ND		25.0	26.3		ug/L		105	10 - 150
Isopropylbenzene	ND		25.0	26.5		ug/L		106	70 - 132
Methylene Chloride	ND		25.0	23.8		ug/L		95	52 - 130
Methyl-t-Butyl Ether (MTBE)	9.3		25.0	34.0		ug/L		99	70 - 130
m,p-Xylene	ND		25.0	26.1		ug/L		104	70 - 133
Naphthalene	ND		25.0	25.6		ug/L		102	60 - 140
n-Butylbenzene	ND		25.0	27.5		ug/L		110	61 - 149
N-Propylbenzene	ND		25.0	26.2		ug/L		105	66 - 135
o-Xylene	ND		25.0	25.7		ug/L		103	70 - 133
p-Isopropyltoluene	ND		25.0	26.3		ug/L		105	70 - 130
sec-Butylbenzene	ND		25.0	25.7		ug/L		103	67 - 134
Styrene	ND		25.0	26.2		ug/L		105	29 - 150
tert-Butylbenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	24.1		ug/L		96	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	24.3		ug/L		97	63 - 130
Tetrachloroethene	ND		25.0	25.6		ug/L		102	70 - 137

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

Lab Sample ID: 440-137866-B-11 MS
Matrix: Water
Analysis Batch: 313173

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	ND		25.0	24.9		ug/L		100	70 - 130
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	ND		25.0	25.7		ug/L		103	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	25.5		ug/L		102	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	27.0		ug/L		108	60 - 140
1,1,1-Trichloroethane	ND		25.0	26.6		ug/L		106	70 - 130
1,1,2-Trichloroethane	ND		25.0	23.8		ug/L		95	70 - 130
Trichloroethene	ND		25.0	25.7		ug/L		103	70 - 130
Trichlorofluoromethane	ND		25.0	27.2		ug/L		109	60 - 150
1,2,3-Trichloropropane	ND		25.0	24.4		ug/L		97	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
Vinyl chloride	ND		25.0	25.3		ug/L		101	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

Lab Sample ID: 440-137866-B-11 MSD
Matrix: Water
Analysis Batch: 313173

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		31.3	40.1		ug/L		128	10 - 150	24	35
Benzene	0.81		25.0	26.1		ug/L		101	66 - 130	2	20
Bromobenzene	ND		25.0	24.9		ug/L		99	70 - 130	3	20
Bromochloromethane	ND		25.0	24.9		ug/L		100	70 - 130	2	25
Bromodichloromethane	ND		25.0	26.5		ug/L		106	70 - 138	3	20
Bromoform	ND		25.0	29.7		ug/L		119	59 - 150	9	25
Bromomethane	ND		25.0	25.6		ug/L		103	62 - 131	1	25
Carbon tetrachloride	ND		25.0	27.3		ug/L		109	60 - 150	2	25
Chlorobenzene	ND		25.0	23.5		ug/L		94	70 - 130	2	20
Chloroethane	ND		25.0	25.3		ug/L		101	68 - 130	3	25
Chloroform	ND		25.0	25.5		ug/L		102	70 - 130	1	20
Chloromethane	ND		25.0	25.3		ug/L		101	39 - 144	1	25
2-Chlorotoluene	ND		25.0	25.0		ug/L		100	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.6		ug/L		102	70 - 130	2	20
cis-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	70 - 133	4	20
Dibromochloromethane	ND		25.0	26.5		ug/L		106	70 - 148	6	25
1,2-Dibromo-3-Chloropropane	ND		25.0	29.7		ug/L		119	48 - 140	21	30
1,2-Dibromoethane (EDB)	ND		25.0	27.5		ug/L		110	70 - 131	9	25
Dibromomethane	ND		25.0	26.7		ug/L		107	70 - 130	7	25
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	24.9		ug/L		99	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130	3	20
Dichlorodifluoromethane	ND		25.0	25.3		ug/L		101	25 - 142	3	30

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

Lab Sample ID: 440-137866-B-11 MSD
Matrix: Water
Analysis Batch: 313173

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	ND		25.0	24.7		ug/L		99	65 - 130	2	20
1,2-Dichloroethane	16		25.0	40.4		ug/L		97	56 - 146	2	20
1,1-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	1	20
1,2-Dichloropropane	ND		25.0	25.6		ug/L		102	69 - 130	3	20
1,3-Dichloropropane	ND		25.0	25.9		ug/L		103	70 - 130	6	25
2,2-Dichloropropane	ND		25.0	28.7		ug/L		115	69 - 138	0	25
1,1-Dichloropropene	ND		25.0	27.1		ug/L		108	64 - 130	2	20
Ethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130	1	20
Hexachlorobutadiene	ND		25.0	25.9		ug/L		104	10 - 150	1	20
Isopropylbenzene	ND		25.0	26.8		ug/L		107	70 - 132	1	20
Methylene Chloride	ND		25.0	24.0		ug/L		96	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	9.3		25.0	36.4		ug/L		108	70 - 130	7	25
m,p-Xylene	ND		25.0	26.6		ug/L		107	70 - 133	2	25
Naphthalene	ND		25.0	28.8		ug/L		115	60 - 140	12	30
n-Butylbenzene	ND		25.0	27.9		ug/L		112	61 - 149	2	20
N-Propylbenzene	ND		25.0	26.9		ug/L		108	66 - 135	2	20
o-Xylene	ND		25.0	26.5		ug/L		106	70 - 133	3	20
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130	2	20
sec-Butylbenzene	ND		25.0	26.4		ug/L		105	67 - 134	2	20
Styrene	ND		25.0	26.8		ug/L		107	29 - 150	2	35
tert-Butylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
1,1,1,2-Tetrachloroethane	ND		25.0	24.7		ug/L		99	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	27.3		ug/L		109	63 - 130	12	30
Tetrachloroethene	ND		25.0	25.6		ug/L		102	70 - 137	0	20
Toluene	ND		25.0	25.1		ug/L		100	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	27.0		ug/L		108	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.0		ug/L		108	70 - 138	5	25
1,2,3-Trichlorobenzene	ND		25.0	26.9		ug/L		108	60 - 140	6	20
1,2,4-Trichlorobenzene	ND		25.0	27.8		ug/L		111	60 - 140	3	20
1,1,1-Trichloroethane	ND		25.0	27.1		ug/L		108	70 - 130	2	20
1,1,2-Trichloroethane	ND		25.0	25.1		ug/L		100	70 - 130	5	25
Trichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	27.0		ug/L		108	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	28.2		ug/L		113	60 - 130	15	30
1,2,4-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
Vinyl chloride	ND		25.0	24.8		ug/L		99	50 - 137	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

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Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-313061/1-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
1,2-Dichlorobenzene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
1,3-Dichlorobenzene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
1,4-Dichlorobenzene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4,5-Trichlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4,6-Trichlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4-Dichlorophenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4-Dimethylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4-Dinitrophenol	ND		40	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,4-Dinitrotoluene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2,6-Dinitrotoluene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Chloronaphthalene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Chlorophenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Methylnaphthalene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Methylphenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Nitroaniline	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
2-Nitrophenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
3,3'-Dichlorobenzidine	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
3-Nitroaniline	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Bromophenyl phenyl ether	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Chloro-3-methylphenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Chloroaniline	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Nitroaniline	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
4-Nitrophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Acenaphthene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Acenaphthylene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Aniline	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Anthracene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzidine	ND		40	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzo[a]anthracene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzo[a]pyrene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzo[b]fluoranthene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzo[g,h,i]perylene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzo[k]fluoranthene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzoic acid	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Benzyl alcohol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Bis(2-chloroethyl)ether	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Butyl benzyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Chrysene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Dibenz(a,h)anthracene	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-313061/1-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313061

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Diethyl phthalate	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Dimethyl phthalate	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Di-n-butyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Di-n-octyl phthalate	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Fluoranthene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Fluorene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Hexachlorobenzene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Hexachlorobutadiene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Hexachlorocyclopentadiene	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Hexachloroethane	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Isophorone	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Naphthalene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Nitrobenzene	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
N-Nitrosodimethylamine	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
N-Nitrosodiphenylamine	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Pentachlorophenol	ND		20	ug/L		02/23/16 12:43	03/01/16 12:50	1
Phenanthrene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Phenol	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1
Pyrene	ND		10	ug/L		02/23/16 12:43	03/01/16 12:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*40 - 120*	*02/23/16 12:43*	*03/01/16 12:50*	*1*
2-Fluorobiphenyl	*78*		*50 - 120*	*02/23/16 12:43*	*03/01/16 12:50*	*1*
2-Fluorophenol (Surr)	*66*		*30 - 120*	*02/23/16 12:43*	*03/01/16 12:50*	*1*
Nitrobenzene-d5 (Surr)	*75*		*45 - 120*	*02/23/16 12:43*	*03/01/16 12:50*	*1*
Phenol-d6 (Surr)	*67*		*35 - 120*	*02/23/16 12:43*	*03/01/16 12:50*	*1*
Terphenyl-d14 (Surr)	*85*		*10 - 150*	*02/23/16 12:43*	*03/01/16 12:50*	*1*

Lab Sample ID: LCS 440-313061/2-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	65.7		ug/L		66	25 - 84
1,2-Dichlorobenzene	100	65.3		ug/L		65	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	85.1		ug/L		84	44 - 113
1,3-Dichlorobenzene	100	65.7		ug/L		66	20 - 80
1,4-Dichlorobenzene	100	66.1		ug/L		66	22 - 81
2,4,5-Trichlorophenol	100	70.1		ug/L		70	24 - 121
2,4,6-Trichlorophenol	100	70.4		ug/L		70	20 - 121
2,4-Dichlorophenol	100	70.5		ug/L		70	23 - 113
2,4-Dimethylphenol	100	71.0		ug/L		71	39 - 94
2,4-Dinitrophenol	200	176		ug/L		88	23 - 134
2,4-Dinitrotoluene	100	84.4		ug/L		84	54 - 115

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-313061/2-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,6-Dinitrotoluene	100	82.8		ug/L		83	50 - 115
2-Chloronaphthalene	100	70.5		ug/L		70	34 - 102
2-Chlorophenol	100	67.1		ug/L		67	20 - 106
2-Methylnaphthalene	100	71.1		ug/L		71	34 - 98
2-Methylphenol	100	68.0		ug/L		68	36 - 103
2-Nitroaniline	100	74.6		ug/L		75	48 - 111
2-Nitrophenol	100	69.9		ug/L		70	20 - 117
3,3'-Dichlorobenzidine	100	ND	*	ug/L		3	22 - 97
3-Methylphenol + 4-Methylphenol	100	69.3		ug/L		69	35 - 106
3-Nitroaniline	100	71.4		ug/L		71	51 - 116
4,6-Dinitro-2-methylphenol	200	180		ug/L		90	28 - 139
4-Bromophenyl phenyl ether	100	77.7		ug/L		78	42 - 113
4-Chloro-3-methylphenol	100	79.1		ug/L		79	44 - 110
4-Chloroaniline	100	24.8	*	ug/L		25	42 - 109
4-Chlorophenyl phenyl ether	100	77.8		ug/L		78	38 - 115
4-Nitroaniline	100	75.4		ug/L		75	50 - 116
4-Nitrophenol	200	174		ug/L		87	26 - 132
Acenaphthene	100	76.5		ug/L		77	37 - 107
Acenaphthylene	100	77.4		ug/L		77	39 - 107
Aniline	100	45.7		ug/L		46	27 - 115
Anthracene	100	84.2		ug/L		84	42 - 120
Benzidine	100	26.1	J	ug/L		26	5 - 150
Benzo[a]anthracene	100	81.4		ug/L		81	42 - 115
Benzo[a]pyrene	100	91.9		ug/L		92	41 - 117
Benzo[b]fluoranthene	100	90.0		ug/L		90	36 - 113
Benzo[g,h,i]perylene	100	93.8		ug/L		94	37 - 115
Benzo[k]fluoranthene	100	101		ug/L		101	42 - 122
Benzoic acid	100	76.5		ug/L		77	15 - 121
Benzyl alcohol	100	78.9		ug/L		79	39 - 106
bis (2-chloroisopropyl) ether	100	72.8		ug/L		73	38 - 104
Bis(2-chloroethoxy)methane	100	73.8		ug/L		74	47 - 104
Bis(2-chloroethyl)ether	100	66.6		ug/L		67	42 - 99
Bis(2-ethylhexyl) phthalate	100	76.7		ug/L		77	43 - 124
Butyl benzyl phthalate	100	76.1		ug/L		76	44 - 122
Chrysene	100	82.8		ug/L		83	42 - 118
Dibenz(a,h)anthracene	100	96.5		ug/L		96	40 - 114
Dibenzofuran	100	79.5		ug/L		80	37 - 113
Diethyl phthalate	100	82.0		ug/L		82	51 - 120
Dimethyl phthalate	100	79.8		ug/L		80	49 - 113
Di-n-butyl phthalate	100	89.5		ug/L		90	47 - 125
Di-n-octyl phthalate	100	85.8		ug/L		86	42 - 125
Fluoranthene	100	86.0		ug/L		86	44 - 119
Fluorene	100	80.7		ug/L		81	39 - 116
Hexachlorobenzene	100	75.8		ug/L		76	43 - 112
Hexachlorobutadiene	100	57.4		ug/L		57	14 - 77
Hexachlorocyclopentadiene	100	31.4		ug/L		31	10 - 77
Hexachloroethane	100	60.6		ug/L		61	13 - 75
Indeno[1,2,3-cd]pyrene	100	96.2		ug/L		96	35 - 116

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-313061/2-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313061

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isophorone	100	77.9		ug/L		78	48 - 107
Naphthalene	100	72.1		ug/L		72	33 - 95
Nitrobenzene	100	74.0		ug/L		74	42 - 99
N-Nitrosodimethylamine	100	64.6		ug/L		65	35 - 96
N-Nitrosodi-n-propylamine	100	72.6		ug/L		73	44 - 111
N-Nitrosodiphenylamine	100	77.1		ug/L		77	46 - 116
Pentachlorophenol	200	162		ug/L		81	26 - 136
Phenanthrene	100	81.3		ug/L		81	43 - 120
Phenol	100	67.4		ug/L		67	25 - 99
Pyrene	100	77.3		ug/L		77	43 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*82*		*40 - 120*
2-Fluorobiphenyl	*69*		*50 - 120*
2-Fluorophenol (Surr)	*58*		*30 - 120*
Nitrobenzene-d5 (Surr)	*72*		*45 - 120*
Phenol-d6 (Surr)	*64*		*35 - 120*
Terphenyl-d14 (Surr)	*80*		*10 - 150*

Lab Sample ID: LCSD 440-313061/3-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 313061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	67.1		ug/L		67	25 - 84	2	35
1,2-Dichlorobenzene	100	63.8		ug/L		64	24 - 85	2	35
1,2-Diphenylhydrazine(as Azobenzene)	101	14.8	J *	ug/L		15	44 - 113	141	35
1,3-Dichlorobenzene	100	63.3		ug/L		63	20 - 80	4	35
1,4-Dichlorobenzene	100	64.1		ug/L		64	22 - 81	3	35
2,4,5-Trichlorophenol	100	73.7		ug/L		74	24 - 121	5	35
2,4,6-Trichlorophenol	100	73.7		ug/L		74	20 - 121	5	35
2,4-Dichlorophenol	100	71.7		ug/L		72	23 - 113	2	35
2,4-Dimethylphenol	100	71.9		ug/L		72	39 - 94	1	35
2,4-Dinitrophenol	200	164		ug/L		82	23 - 134	7	35
2,4-Dinitrotoluene	100	81.7		ug/L		82	54 - 115	3	35
2,6-Dinitrotoluene	100	79.4		ug/L		79	50 - 115	4	35
2-Chloronaphthalene	100	72.7		ug/L		73	34 - 102	3	35
2-Chlorophenol	100	66.6		ug/L		67	20 - 106	1	35
2-Methylnaphthalene	100	71.1		ug/L		71	34 - 98	0	35
2-Methylphenol	100	66.7		ug/L		67	36 - 103	2	35
2-Nitroaniline	100	70.4		ug/L		70	48 - 111	6	35
2-Nitrophenol	100	70.5		ug/L		70	20 - 117	1	35
3,3'-Dichlorobenzidine	100	ND	*	ug/L		2	22 - 97	41	35
3-Methylphenol + 4-Methylphenol	100	67.3		ug/L		67	35 - 106	3	35
3-Nitroaniline	100	10.0	J *	ug/L		10	51 - 116	151	35
4,6-Dinitro-2-methylphenol	200	170		ug/L		85	28 - 139	6	35
4-Bromophenyl phenyl ether	100	78.8		ug/L		79	42 - 113	1	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-313061/3-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 313061

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chloro-3-methylphenol	100	76.0		ug/L		76	44 - 110	4	35
4-Chloroaniline	100	8.61	J *	ug/L		9	42 - 109	97	35
4-Chlorophenyl phenyl ether	100	77.8		ug/L		78	38 - 115	0	35
4-Nitroaniline	100	17.5	J *	ug/L		17	50 - 116	125	35
4-Nitrophenol	200	164		ug/L		82	26 - 132	6	35
Acenaphthene	100	73.6		ug/L		74	37 - 107	4	35
Acenaphthylene	100	26.3	*	ug/L		26	39 - 107	99	35
Aniline	100	49.4		ug/L		49	27 - 115	8	35
Anthracene	100	76.2		ug/L		76	42 - 120	10	35
Benzidine	100	49.4	*	ug/L		49	5 - 150	62	35
Benzo[a]anthracene	100	75.3		ug/L		75	42 - 115	8	35
Benzo[a]pyrene	100	52.0	*	ug/L		52	41 - 117	55	35
Benzo[b]fluoranthene	100	82.0		ug/L		82	36 - 113	9	35
Benzo[g,h,i]perylene	100	80.5		ug/L		80	37 - 115	15	35
Benzo[k]fluoranthene	100	91.4		ug/L		91	42 - 122	10	35
Benzoic acid	100	75.1		ug/L		75	15 - 121	2	35
Benzyl alcohol	100	48.2	*	ug/L		48	39 - 106	48	35
bis (2-chloroisopropyl) ether	100	68.7		ug/L		69	38 - 104	6	35
Bis(2-chloroethoxy)methane	100	11.8	*	ug/L		12	47 - 104	145	35
Bis(2-chloroethyl)ether	100	66.6		ug/L		67	42 - 99	0	35
Bis(2-ethylhexyl) phthalate	100	75.4		ug/L		75	43 - 124	2	35
Butyl benzyl phthalate	100	68.6		ug/L		69	44 - 122	10	35
Chrysene	100	76.1		ug/L		76	42 - 118	8	35
Dibenz(a,h)anthracene	100	85.8		ug/L		86	40 - 114	12	35
Dibenzofuran	100	78.0		ug/L		78	37 - 113	2	35
Diethyl phthalate	100	76.3		ug/L		76	51 - 120	7	35
Dimethyl phthalate	100	78.9		ug/L		79	49 - 113	1	35
Di-n-butyl phthalate	100	87.8		ug/L		88	47 - 125	2	35
Di-n-octyl phthalate	100	80.8		ug/L		81	42 - 125	6	35
Fluoranthene	100	83.0		ug/L		83	44 - 119	4	35
Fluorene	100	78.8		ug/L		79	39 - 116	2	35
Hexachlorobenzene	100	76.2		ug/L		76	43 - 112	1	35
Hexachlorobutadiene	100	60.2		ug/L		60	14 - 77	5	35
Hexachlorocyclopentadiene	100	40.5		ug/L		40	10 - 77	25	35
Hexachloroethane	100	59.5		ug/L		59	13 - 75	2	35
Indeno[1,2,3-cd]pyrene	100	81.4		ug/L		81	35 - 116	17	35
Isophorone	100	72.7		ug/L		73	48 - 107	7	35
Naphthalene	100	71.5		ug/L		72	33 - 95	1	35
Nitrobenzene	100	73.7		ug/L		74	42 - 99	0	35
N-Nitrosodimethylamine	100	67.3		ug/L		67	35 - 96	4	35
N-Nitrosodi-n-propylamine	100	69.3		ug/L		69	44 - 111	5	35
N-Nitrosodiphenylamine	100	38.5	*	ug/L		39	46 - 116	67	35
Pentachlorophenol	200	163		ug/L		82	26 - 136	1	35
Phenanthrene	100	80.4		ug/L		80	43 - 120	1	35
Phenol	100	66.8		ug/L		67	25 - 99	1	35
Pyrene	100	66.9		ug/L		67	43 - 119	14	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-313061/3-A
Matrix: Water
Analysis Batch: 314504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 313061

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	81		40 - 120
2-Fluorobiphenyl	72		50 - 120
2-Fluorophenol (Surr)	57		30 - 120
Nitrobenzene-d5 (Surr)	70		45 - 120
Phenol-d6 (Surr)	62		35 - 120
Terphenyl-d14 (Surr)	82		10 - 150

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Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-312990/1-A
Matrix: Water
Analysis Batch: 313405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50		ug/L		02/23/16 10:07	02/24/16 16:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	63		36 - 90	02/23/16 10:07	02/24/16 16:21	1

Lab Sample ID: LCS 440-312990/2-A
Matrix: Water
Analysis Batch: 313405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.09		ug/L		55	36 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Dioxane-d8 (Surr)	58		36 - 90

Lab Sample ID: LCSD 440-312990/3-A
Matrix: Water
Analysis Batch: 313405

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 312990

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.07		ug/L		54	36 - 120	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Dioxane-d8 (Surr)	57		36 - 90

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-312534/1
Matrix: Water
Analysis Batch: 312534

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0		mg/L			02/20/16 10:43	1

Lab Sample ID: LCS 440-312534/2
Matrix: Water
Analysis Batch: 312534

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	977		mg/L		98	85 - 115

Lab Sample ID: 440-138478-A-1 DU
Matrix: Water
Analysis Batch: 312534

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	320		326		mg/L		2	10

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Method: SM 4500 H+ B - pH

Lab Sample ID: 440-138556-A-1 DU
Matrix: Water
Analysis Batch: 312370

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	6.98		7.060		SU		1	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-312795/1-A
Matrix: Water
Analysis Batch: 312871

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 312795

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050	mg/L		02/22/16 14:23	02/22/16 16:10	1

Lab Sample ID: LCS 440-312795/2-A
Matrix: Water
Analysis Batch: 312871

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 312795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	0.520	0.531		mg/L		102	80 - 120

Lab Sample ID: 440-138555-I-2-B MS
Matrix: Water
Analysis Batch: 312871

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 312795

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	ND	HF	0.520	0.515		mg/L		99	70 - 130

Lab Sample ID: 440-138555-I-2-C MSD
Matrix: Water
Analysis Batch: 312871

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 312795

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.520	0.509		mg/L		98	70 - 130	1	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-312873/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 312873

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	mg/L			02/22/16 16:42	1

Lab Sample ID: LCS 440-312873/10 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 312873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	200	189		mg/L		95	90 - 110

Lab Sample ID: 440-138504-E-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 312873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		200	217		mg/L		100	70 - 120

Lab Sample ID: 440-138504-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 312873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		200	220		mg/L		101	70 - 120	1	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC

TestAmerica Job ID: 440-138545-1

GC/MS VOA

Analysis Batch: 312804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138107-E-17 MS	Matrix Spike	Total/NA	Water	8260B	
440-138107-E-17 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-138545-2	Grab	Total/NA	Water	8260B	
LCS 440-312804/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-312804/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 313173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-137866-B-11 MS	Matrix Spike	Total/NA	Water	8260B	
440-137866-B-11 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-138545-2	Grab	Total/NA	Water	8260B	
LCS 440-313173/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-313173/4	Method Blank	Total/NA	Water	8260B	

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GC/MS Semi VOA

Prep Batch: 312990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Total/NA	Water	3520C	
LCS 440-312990/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-312990/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-312990/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 313061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Total/NA	Water	3520C	
LCS 440-313061/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-313061/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-313061/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 313405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Total/NA	Water	8270C SIM	312990
LCS 440-312990/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	312990
LCSD 440-312990/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	312990
MB 440-312990/1-A	Method Blank	Total/NA	Water	8270C SIM	312990

Analysis Batch: 314504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Total/NA	Water	8270C	313061
LCS 440-313061/2-A	Lab Control Sample	Total/NA	Water	8270C	313061
LCSD 440-313061/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	313061
MB 440-313061/1-A	Method Blank	Total/NA	Water	8270C	313061

General Chemistry

Analysis Batch: 312370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Total/NA	Water	SM 4500 H+ B	
440-138556-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 312534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138478-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
440-138545-1	Composite	Total/NA	Water	SM 2540D	
LCS 440-312534/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-312534/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 312795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Dissolved	Water	SM 4500 S2 B	
440-138555-I-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-138555-I-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	
LCS 440-312795/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
MB 440-312795/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 312871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138545-2	Grab	Dissolved	Water	SM 4500 S2 D	312795
440-138555-I-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	312795
440-138555-I-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	312795
LCS 440-312795/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	312795
MB 440-312795/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	312795

Analysis Batch: 312873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-138504-E-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-138504-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
440-138545-1	Composite	Total/NA	Water	SM 5220D	
LCS 440-312873/10	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 440-312873/9	Method Blank	Total/NA	Water	SM 5220D	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - SDLAC

TestAmerica Job ID: 440-138545-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312007A	07-31-16
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-16 *
Oregon	NELAP	10	4005	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue, Suite 100, Irvine CA 92614-5817 (949) 261-1022 / FAX (949) 260-3297

CHAIN OF CUSTODY FORM

Page 1 of 2

Client Name/Address: Andrew Miller
Jacob and Hefner Associates P.C.
15375 Barranca Parkway J-101
Irvine, CA 92618

Project Number:44003641

PO#:

Project Manager:Urvashi Patel

Phone Number: 949-453-1045

Email: Amiller@jacobandhefner.com

Omega Chemical- SDLAC

Sampler: Felipe Reyes

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservation	5220D-COD	2540D-TSS	SM4500_S2-B-Dissolved Sulfide	8260-LL-VOCs+oxy+Ks+F113	8270_Sim-1,4-DXN	8270-Default	SM4500_H+ -pH	8260_LL-A+A+2CVE			Special Instructions
Composite	H_2O	500ml Plastic	1	2-17-18-16 14:15	H2SO4	X										start = 2-17-16 12:30
Composite	H_2O	1L Plastic	1	↓ ↓ 14:15	Unpreserved		X									= 2041384
Grab	H_2O	500ml Plastic	1	2-18-16 14:25	NaOH			X								End = 2-18-16 12:30
Grab	H_2O	40ml VOA	3	2-18-16 14:25	HCl				X							= 2047307
Grab	H_2O	1L Amber Gl	2	2-18-16 14:25	Unpreserved					X						Field IPH = 8.6
Grab	H_2O	1L Amber Gl	2	2-18-16 14:25	Unpreserved						X					
Grab	H_2O	500ml Plastic	1	2-18-16 14:25	Unpreserved							X				Temp = 16.9°C
Grab	H_2O	40ml VOA	3	2-18-16 14:25	Unpreserved								X			

OC 2/18/16 18:40

TA Sampler Hours:

440-138545 Chain of Custody

Relinquished By:	Date/Time:	Received by:	Date/Time:
[signature] 2/18/16	17:20		
Relinquished By:	Date/Time:	Received by:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab by: [signature]	Date/Time: 02/18/16 17:20

Turnaround Time: (Check)
Same Day ____ 72 Hours ____
24 Hours ____ 5 Days ____
48 Hours ____ Normal X

Sample Integrity: (Check)
Intact ✓ On Ice ✓

Note: By relinquishing samples to Test America, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

ATH

Temp 3.7/4.0°C 12-78

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-138545-1

Login Number: 138545
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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OMEGA CHEMICAL SITE PRP ORGANIZED GROUP
1322 Scott Street
Suite 104
San Diego, Ca 92106
(619) 546-8377
(619) 546-9980 FAX
e-mail: edm@demaximis.com

July 11, 2016

Ms. Grace Robinson Hyde
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601-1400

Subject: Self-Monitoring Report -2nd Quarter 2016
Permit Number 20039, Surcharge Account Number 2113183

Dear Ms. Grace Robinson Hyde,

This letter transmits the 2nd Quarter 2016 Self-Monitoring Report (SMR) for the Omega Chemical Site located at 12520 East Whittier Blvd, Whittier, California. Feel free to contact me if you need any additional information.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

SANITATION DISTRICTS OF LOS ANGELES COUNTY

GRACE ROBINSON HYDE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

Permit Number: 20039
Facility ID: 2113183

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 04/01/2016 To: 06/30/2016 Report Due No Later Than : 07/15/2016

Company Name: **Omega Chemical Site PRP Group LLC**
Wastewater Discharge Address: **12520 WHITTIER Blvd Whittier, CA, 90602**
Sample Location: **20039A**
Mailing Address: **1322 Scott Street # 104 San Diego, CA, 92106**
Industrial Wastewater Contact Name and Phone Number: **Mr. Ravi Subramanian** **949-752-5452 x277 - Business**

Has Ownership or Occupancy Changed Since the Last Report? ☐ Yes ☑ No

(Print) Name of Company Collecting Wastewater Sample: Test America

(Print) Sample Date: 5/19/16

Daily Wastewater Discharge for Reporting Period
Average: 4,997 GPD
Maximum: 7,250 GPD

Method For Determining Wastewater Flow for Sampling Day
☑ Direct Measurement
☐ Adjusted Metered Water Supply
☐ No Discharge During Reporting Period

Type of Composite Sample
☑ Time Composite
☐ Flow Proportioned Composite

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow			10.5		gpm	10256
Z01 Sample Day Total Flow			6290		GPD	10256
101 pH	GRAB	Federal Daily Minimum 5.0 S.U. Local Daily Minimum 6.0 S.U.	8.64	0.1	S.U.	10256
151 Solids, Suspended	COMPOSITE		6.6	1	mg/L	10256
252 Sulfide, Soluble	GRAB	Local At Any Time 0.1 mg/L	ND	0.1	mg/L	10256
403 COD, Total	COMPOSITE		59	20	mg/L	10256
696 1,4-Dioxane	GRAB		34	4.9	ug/L	10256
T09 TTO, Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
601 Methylene Chloride	GRAB		ND	5	ug/L	10256
602 Chloroform	GRAB		ND	1	ug/L	10256
603 1,1,1-Trichloroethane	GRAB		ND	1	ug/L	10256
604 Carbon Tetrachloride	GRAB		ND	0.5	ug/L	10256
605 1,1-Dichloroethene	GRAB		ND	1	ug/L	10256
606 Trichloroethylene	GRAB		ND	1	ug/L	10256
607 Tetrachloroethylene	GRAB		ND	1	ug/L	10256
608 Bromodichloromethane	GRAB		ND	1	ug/L	10256
609 Dibromochloromethane	GRAB		ND	1	ug/L	10256
610 Bromoform	GRAB		ND	1	ug/L	10256
611 Chlorobenzene	GRAB		ND	1	ug/L	10256
612 Vinyl Chloride	GRAB		ND	0.5	ug/L	10256
613 o-Dichlorobenzene	GRAB		ND	1	ug/L	10256
614 m-Dichlorobenzene	GRAB		ND	1	ug/L	10256

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 07/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **04/01/2016** To: **06/30/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
615 p-Dichlorobenzene	GRAB		ND	1	ug/L	10256
616 1,1-Dichloroethane	GRAB		ND	1	ug/L	10256
618 1,1,2-Trichloroethane	GRAB		ND	1	ug/L	10256
619 1,2-Dichloroethane	GRAB		ND	1	ug/L	10256
620 Benzene	GRAB		ND	0.5	ug/L	10256
621 Toluene	GRAB		ND	1	ug/L	10256
624 Ethyl Benzene	GRAB		ND	1	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB		ND	1	ug/L	10256
646 Bromomethane	GRAB		ND	1	ug/L	10256
647 Chloroethane	GRAB		ND	1	ug/L	10256
648 2-Chloroethylvinylether	GRAB		ND	2	ug/L	10256
649 Chloromethane	GRAB		ND	1	ug/L	10256
650 1,2-Dichloropropane	GRAB		ND	1	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB		ND	1	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
800 Acenaphthene	GRAB		ND	9.5	ug/L	10256
801 Acenaphthylene	GRAB		ND	9.5	ug/L	10256
802 Anthracene	GRAB		ND	9.5	ug/L	10256
803 Benzidine	GRAB		ND	38	ug/L	10256
804 Benzo(a)anthracene	GRAB		ND	9.5	ug/L	10256
805 Benzo(a)pyrene	GRAB		ND	9.5	ug/L	10256
806 Benzo(b)fluoranthene	GRAB		ND	9.5	ug/L	10256
807 Benzo(g.h.i.)perylene	GRAB		ND	9.5	ug/L	10256
808 Benzo(k)fluoranthene	GRAB		ND	9.5	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB		ND	9.5	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB		ND	9.5	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB		ND	9.5	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB		ND	19	ug/L	10256
813 4-bromophenyl Phenylether	GRAB		ND	9.5	ug/L	10256
814 butylbenzyl Phthalate	GRAB		ND	19	ug/L	10256
815 2-Chloronaphthalene	GRAB		ND	9.5	ug/L	10256
816 4-Chlorophenylphenylether	GRAB		ND	9.5	ug/L	10256
817 Chrysene	GRAB		ND	9.5	ug/L	10256
818 dibenzo(a,h)Anthracene	GRAB		ND	19	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB		ND	19	ug/L	10256
823 diethyl Phthalate	GRAB		ND	9.5	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 07/15/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **04/01/2016** To: **06/30/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
824 dimethyl Phthalate	GRAB		ND	9.5	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	19	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	9.5	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	9.5	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	19	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	19	ug/L	10256
830 Fluoranthene	GRAB		ND	9.5	ug/L	10256
831 Fluorene	GRAB		ND	9.5	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	9.5	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	9.5	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	19	ug/L	10256
835 Hexachloroethane	GRAB		ND	9.5	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	19	ug/L	10256
837 Isophorone	GRAB		ND	9.5	ug/L	10256
838 Naphthalene	GRAB		ND	9.5	ug/L	10256
839 Nitrobenzene	GRAB		ND	19	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	19	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	9.5	ug/L	10256
842 Phenanthrene	GRAB		ND	9.5	ug/L	10256
843 Pyrene	GRAB		ND	9.5	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	9.5	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	9.5	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	9.5	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	19	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	38	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	19	ug/L	10256
851 2-Nitrophenol	GRAB		ND	9.5	ug/L	10256
852 4-Nitrophenol	GRAB		ND	19	ug/L	10256
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	19	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	19	ug/L	10256
855 Phenol	GRAB		ND	9.5	ug/L	10256
856 2,4,6-Trichlorophenol	GRAB		ND	19	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	9.5	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 07/15/2016

Permit Number: 20039

Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **04/01/2016** To: **06/30/2016**

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the selfmonitoring report form.
(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.
(3) Daily and/or At Any Time permit limits are included on this form for convenience. For a full list of all applicable permit limits, including monthly and 4-day averages, refer to your Permit Data Sheet.
(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.
(5) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.
(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.
(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: Edward Machione → OPOG Date: 7/11/16

Print name of official: Edward Machione Title: Project Coordinator

LACSD USE ONLY Monitoring ID: 483489

Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

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: 440-147913-1
Client Project/Site: Omega Chemical Wastewater

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Pamela Henriksen

Authorized for release by:
5/27/2016 12:35:00 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-147913-1	Composite	Water	05/19/16 09:10	05/19/16 13:04
440-147913-2	Grab	Water	05/19/16 09:14	05/19/16 13:04

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Job ID: 440-147913-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-147913-1

Comments
No additional comments.

Receipt
The samples were received on 5/19/2016 1:04 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

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

GC/MS Semi VOA
Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-331724 and analytical batch 440-332224. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 440-331724 and analytical batch 440-332224 recovered outside control limits for benzo(g,h,i)perylene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: Grab (440-147913-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Client Sample ID: Composite

Lab Sample ID: 440-147913-1
Date Collected: 05/19/16 09:10
Matrix: Water
Date Received: 05/19/16 13:04

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	6.6		1.0	mg/L			05/19/16 20:54	1
Chemical Oxygen Demand	59		20	mg/L			05/26/16 11:20	1

Client Sample ID: Grab

Lab Sample ID: 440-147913-2
Date Collected: 05/19/16 09:14
Matrix: Water
Date Received: 05/19/16 13:04

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			05/25/16 01:14	1
Acrolein	ND		5.0	ug/L			05/20/16 14:57	1
Acrylonitrile	ND		2.0	ug/L			05/20/16 14:57	1
Benzene	ND		0.50	ug/L			05/25/16 01:14	1
Bromobenzene	ND		1.0	ug/L			05/25/16 01:14	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			05/20/16 14:57	1
Bromochloromethane	ND		1.0	ug/L			05/25/16 01:14	1
Bromodichloromethane	ND		1.0	ug/L			05/25/16 01:14	1
Bromoform	ND		1.0	ug/L			05/25/16 01:14	1
Total Volatile Organic Compounds	ND		150	ug/L			05/20/16 14:57	1
Bromomethane	ND		1.0	ug/L			05/25/16 01:14	1
Carbon tetrachloride	ND		0.50	ug/L			05/25/16 01:14	1
Chlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
Chloroethane	ND		1.0	ug/L			05/25/16 01:14	1
Chloroform	ND		1.0	ug/L			05/25/16 01:14	1
Chloromethane	ND		1.0	ug/L			05/25/16 01:14	1
2-Chlorotoluene	ND		1.0	ug/L			05/25/16 01:14	1
4-Chlorotoluene	ND		1.0	ug/L			05/25/16 01:14	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			05/25/16 01:14	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			05/25/16 01:14	1
Dibromochloromethane	ND		1.0	ug/L			05/25/16 01:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/25/16 01:14	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			05/25/16 01:14	1
Dibromomethane	ND		1.0	ug/L			05/25/16 01:14	1
1,2-Dichlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,3-Dichlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,4-Dichlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
Dichlorodifluoromethane	ND		1.0	ug/L			05/25/16 01:14	1
1,1-Dichloroethane	ND		1.0	ug/L			05/25/16 01:14	1
1,2-Dichloroethane	ND		1.0	ug/L			05/25/16 01:14	1
1,1-Dichloroethene	ND		1.0	ug/L			05/25/16 01:14	1
1,2-Dichloropropane	ND		1.0	ug/L			05/25/16 01:14	1
1,3-Dichloropropane	ND		1.0	ug/L			05/25/16 01:14	1
2,2-Dichloropropane	ND		1.0	ug/L			05/25/16 01:14	1
1,1-Dichloropropene	ND		1.0	ug/L			05/25/16 01:14	1
Ethylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
Hexachlorobutadiene	ND		1.0	ug/L			05/25/16 01:14	1
Isopropylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
Methylene Chloride	ND		5.0	ug/L			05/25/16 01:14	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			05/25/16 01:14	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Client Sample ID: Grab

Date Collected: 05/19/16 09:14
Date Received: 05/19/16 13:04

Lab Sample ID: 440-147913-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			05/25/16 01:14	1
Naphthalene	ND		1.0	ug/L			05/25/16 01:14	1
n-Butylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
N-Propylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
o-Xylene	ND		1.0	ug/L			05/25/16 01:14	1
p-Isopropyltoluene	ND		1.0	ug/L			05/25/16 01:14	1
sec-Butylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
Styrene	ND		1.0	ug/L			05/25/16 01:14	1
tert-Butylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			05/25/16 01:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			05/25/16 01:14	1
Tetrachloroethene	ND		1.0	ug/L			05/25/16 01:14	1
Toluene	ND		1.0	ug/L			05/25/16 01:14	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/25/16 01:14	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/25/16 01:14	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/25/16 01:14	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/25/16 01:14	1
Trichloroethene	ND		1.0	ug/L			05/25/16 01:14	1
Trichlorofluoromethane	ND		1.0	ug/L			05/25/16 01:14	1
1,2,3-Trichloropropane	ND		1.0	ug/L			05/25/16 01:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			05/25/16 01:14	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/25/16 01:14	1
Vinyl chloride	ND		0.50	ug/L			05/25/16 01:14	1
Isopropyl alcohol	ND		250	ug/L			05/25/16 01:14	1
Total Volatile Organic Compounds	ND		150	ug/L			05/25/16 01:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*05/20/16 14:57*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*05/20/16 14:57*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*05/25/16 01:14*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*05/20/16 14:57*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*05/25/16 01:14*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*05/25/16 01:14*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**34**		4.9	ug/L		05/20/16 09:39	05/21/16 19:43	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*46*		*36 - 90*	*05/20/16 09:39*	*05/21/16 19:43*	*10*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
1,2-Dichlorobenzene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
1,3-Dichlorobenzene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1

Client Sample ID: Grab

Date Collected: 05/19/16 09:14
Date Received: 05/19/16 13:04

Lab Sample ID: 440-147913-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4,5-Trichlorophenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4,6-Trichlorophenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4-Dichlorophenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4-Dimethylphenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4-Dinitrophenol	ND		38	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,4-Dinitrotoluene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2,6-Dinitrotoluene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Chloronaphthalene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Chlorophenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Methylnaphthalene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Methylphenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Nitroaniline	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
2-Nitrophenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
3,3'-Dichlorobenzidine	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
3-Methylphenol + 4-Methylphenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
3-Nitroaniline	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
4,6-Dinitro-2-methylphenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Bromophenyl phenyl ether	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Chloro-3-methylphenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Chloroaniline	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Chlorophenyl phenyl ether	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Nitroaniline	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
4-Nitrophenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Acenaphthene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Acenaphthylene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Aniline	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Anthracene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzidine	ND		38	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzo[a]anthracene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzo[a]pyrene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzo[b]fluoranthene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzo[g,h,i]perylene	ND	*	9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzo[k]fluoranthene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzoic acid	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Benzyl alcohol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
bis (2-chloroisopropyl) ether	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Bis(2-chloroethoxy)methane	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Bis(2-chloroethyl)ether	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Bis(2-ethylhexyl) phthalate	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Butyl benzyl phthalate	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Chrysene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Dibenz(a,h)anthracene	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Dibenzofuran	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Diethyl phthalate	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Dimethyl phthalate	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Di-n-butyl phthalate	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Di-n-octyl phthalate	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Fluoranthene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Client Sample ID: Grab

Date Collected: 05/19/16 09:14
Date Received: 05/19/16 13:04

Lab Sample ID: 440-147913-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Hexachlorobenzene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Hexachlorobutadiene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Hexachlorocyclopentadiene	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Hexachloroethane	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Indeno[1,2,3-cd]pyrene	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Isophorone	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Naphthalene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Nitrobenzene	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
N-Nitrosodimethylamine	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
N-Nitrosodi-n-propylamine	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
N-Nitrosodiphenylamine	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Pentachlorophenol	ND		19	ug/L		05/20/16 10:31	05/23/16 20:45	1
Phenanthrene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Phenol	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1
Pyrene	ND		9.5	ug/L		05/20/16 10:31	05/23/16 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*86*		*40 - 120*	*05/20/16 10:31*	*05/23/16 20:45*	*1*
2-Fluorobiphenyl	*69*		*50 - 120*	*05/20/16 10:31*	*05/23/16 20:45*	*1*
2-Fluorophenol (Surr)	*78*		*30 - 120*	*05/20/16 10:31*	*05/23/16 20:45*	*1*
Nitrobenzene-d5 (Surr)	*73*		*45 - 120*	*05/20/16 10:31*	*05/23/16 20:45*	*1*
Phenol-d6 (Surr)	*85*		*35 - 120*	*05/20/16 10:31*	*05/23/16 20:45*	*1*
Terphenyl-d14 (Surr)	*74*		*10 - 150*	*05/20/16 10:31*	*05/23/16 20:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.64**	**HF**	0.100	SU			05/23/16 14:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050	mg/L		05/22/16 17:06	05/23/16 00:32	1

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV
SM 5220D	COD	SM	TAL IRV

Protocol References:

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

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Client Sample ID: Composite

Lab Sample ID: 440-147913-1
Date Collected: 05/19/16 09:10
Matrix: Water
Date Received: 05/19/16 13:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	331601	05/19/16 20:54	ECK	TAL IRV
Total/NA	Analysis	SM 5220D		1	0.625 mL	2.5 mL	332929	05/26/16 11:20	KYP	TAL IRV

Client Sample ID: Grab

Lab Sample ID: 440-147913-2
Date Collected: 05/19/16 09:14
Matrix: Water
Date Received: 05/19/16 13:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	332556	05/25/16 01:14	AA	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	331655	05/20/16 14:57	LB	TAL IRV
Total/NA	Prep	3520C			1050 mL	2 mL	331724	05/20/16 10:31	FTD	TAL IRV
Total/NA	Analysis	8270C		1	1050 mL	2 mL	332226	05/23/16 20:45	NK1	TAL IRV
Total/NA	Prep	3520C			1025 mL	1 mL	331707	05/20/16 09:39	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		10	1025 mL	1 mL	331941	05/21/16 19:43	AI	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1		50 mL	332220	05/23/16 14:27	B1H	TAL IRV
Dissolved	Prep	SM 4500 S2 B			40 mL	40 mL	332045	05/22/16 17:06	EN	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	40 mL	40 mL	332077	05/23/16 00:32	EN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-331655/4
Matrix: Water
Analysis Batch: 331655

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0		ug/L			05/20/16 09:30	1
Acrylonitrile	ND		2.0		ug/L			05/20/16 09:30	1
2-Chloroethyl vinyl ether	ND		2.0		ug/L			05/20/16 09:30	1
Total Volatile Organic Compounds	ND		150		ug/L			05/20/16 09:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*05/20/16 09:30*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*05/20/16 09:30*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*05/20/16 09:30*	*1*

Lab Sample ID: LCS 440-331655/5
Matrix: Water
Analysis Batch: 331655

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			25.0	22.8		ug/L		91	37 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*112*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: 440-147620-D-1 MS
Matrix: Water
Analysis Batch: 331655

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND		25.0	24.1		ug/L		97	10 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: 440-147620-D-1 MSD
Matrix: Water
Analysis Batch: 331655

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND		25.0	24.6		ug/L		98	10 - 140	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

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

Lab Sample ID: MB 440-332556/4
Matrix: Water
Analysis Batch: 332556

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			05/24/16 20:45	1
Benzene	ND		0.50		ug/L			05/24/16 20:45	1
Bromobenzene	ND		1.0		ug/L			05/24/16 20:45	1
Bromochloromethane	ND		1.0		ug/L			05/24/16 20:45	1
Bromodichloromethane	ND		1.0		ug/L			05/24/16 20:45	1
Bromoform	ND		1.0		ug/L			05/24/16 20:45	1
Bromomethane	ND		1.0		ug/L			05/24/16 20:45	1
Carbon tetrachloride	ND		0.50		ug/L			05/24/16 20:45	1
Chlorobenzene	ND		1.0		ug/L			05/24/16 20:45	1
Chloroethane	ND		1.0		ug/L			05/24/16 20:45	1
Chloroform	ND		1.0		ug/L			05/24/16 20:45	1
Chloromethane	ND		1.0		ug/L			05/24/16 20:45	1
2-Chlorotoluene	ND		1.0		ug/L			05/24/16 20:45	1
4-Chlorotoluene	ND		1.0		ug/L			05/24/16 20:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/24/16 20:45	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/24/16 20:45	1
Dibromochloromethane	ND		1.0		ug/L			05/24/16 20:45	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/24/16 20:45	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			05/24/16 20:45	1
Dibromomethane	ND		1.0		ug/L			05/24/16 20:45	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/24/16 20:45	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/24/16 20:45	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/24/16 20:45	1
Dichlorodifluoromethane	ND		1.0		ug/L			05/24/16 20:45	1
1,1-Dichloroethane	ND		1.0		ug/L			05/24/16 20:45	1
1,2-Dichloroethane	ND		1.0		ug/L			05/24/16 20:45	1
1,1-Dichloroethene	ND		1.0		ug/L			05/24/16 20:45	1
1,2-Dichloropropane	ND		1.0		ug/L			05/24/16 20:45	1
1,3-Dichloropropane	ND		1.0		ug/L			05/24/16 20:45	1
2,2-Dichloropropane	ND		1.0		ug/L			05/24/16 20:45	1
1,1-Dichloropropene	ND		1.0		ug/L			05/24/16 20:45	1
Ethylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
Hexachlorobutadiene	ND		1.0		ug/L			05/24/16 20:45	1
Isopropylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
Methylene Chloride	ND		5.0		ug/L			05/24/16 20:45	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			05/24/16 20:45	1
m,p-Xylene	ND		1.0		ug/L			05/24/16 20:45	1
Naphthalene	ND		1.0		ug/L			05/24/16 20:45	1
n-Butylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
N-Propylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
o-Xylene	ND		1.0		ug/L			05/24/16 20:45	1
p-Isopropyltoluene	ND		1.0		ug/L			05/24/16 20:45	1
sec-Butylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
Styrene	ND		1.0		ug/L			05/24/16 20:45	1
tert-Butylbenzene	ND		1.0		ug/L			05/24/16 20:45	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/24/16 20:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/24/16 20:45	1
Tetrachloroethene	ND		1.0		ug/L			05/24/16 20:45	1

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

Lab Sample ID: MB 440-332556/4
Matrix: Water
Analysis Batch: 332556

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	ug/L			05/24/16 20:45	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/24/16 20:45	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/24/16 20:45	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/24/16 20:45	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/24/16 20:45	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/24/16 20:45	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/24/16 20:45	1
Trichloroethene	ND		1.0	ug/L			05/24/16 20:45	1
Trichlorofluoromethane	ND		1.0	ug/L			05/24/16 20:45	1
1,2,3-Trichloropropane	ND		1.0	ug/L			05/24/16 20:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			05/24/16 20:45	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/24/16 20:45	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/24/16 20:45	1
Vinyl chloride	ND		0.50	ug/L			05/24/16 20:45	1
Isopropyl alcohol	ND		250	ug/L			05/24/16 20:45	1
Total Volatile Organic Compounds	ND		150	ug/L			05/24/16 20:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/24/16 20:45*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*05/24/16 20:45*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*05/24/16 20:45*	*1*

Lab Sample ID: LCS 440-332556/5
Matrix: Water
Analysis Batch: 332556

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	20.7		ug/L		83	10 - 150
Benzene	25.0	24.2		ug/L		97	68 - 130
Bromobenzene	25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	25.0	26.4		ug/L		106	70 - 130
Bromodichloromethane	25.0	27.8		ug/L		111	70 - 132
Bromoform	25.0	30.8		ug/L		123	60 - 148
Bromomethane	25.0	22.4		ug/L		90	64 - 139
Carbon tetrachloride	25.0	24.3		ug/L		97	60 - 150
Chlorobenzene	25.0	25.0		ug/L		100	70 - 130
Chloroethane	25.0	21.3		ug/L		85	64 - 135
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	21.6		ug/L		86	47 - 140
2-Chlorotoluene	25.0	23.3		ug/L		93	70 - 130
4-Chlorotoluene	25.0	23.6		ug/L		94	70 - 130
cis-1,2-Dichloroethene	25.0	25.7		ug/L		103	70 - 133
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	70 - 133
Dibromochloromethane	25.0	27.6		ug/L		111	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	24.9		ug/L		100	52 - 140
1,2-Dibromoethane (EDB)	25.0	27.3		ug/L		109	70 - 130
Dibromomethane	25.0	27.5		ug/L		110	70 - 130
1,2-Dichlorobenzene	25.0	25.1		ug/L		100	70 - 130

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

Lab Sample ID: LCS 440-332556/5
Matrix: Water
Analysis Batch: 332556

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
1,4-Dichlorobenzene	25.0	24.5		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	19.0		ug/L		76	29 - 150
1,1-Dichloroethane	25.0	25.4		ug/L		102	64 - 130
1,2-Dichloroethane	25.0	27.5		ug/L		110	57 - 138
1,1-Dichloroethene	25.0	24.3		ug/L		97	70 - 130
1,2-Dichloropropane	25.0	27.7		ug/L		111	67 - 130
1,3-Dichloropropane	25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	25.0	25.4		ug/L		101	68 - 141
1,1-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Ethylbenzene	25.0	24.0		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	22.9		ug/L		92	10 - 150
Isopropylbenzene	25.0	24.5		ug/L		98	70 - 136
Methylene Chloride	25.0	28.9		ug/L		116	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	28.2		ug/L		113	63 - 131
m,p-Xylene	25.0	26.0		ug/L		104	70 - 130
Naphthalene	25.0	25.4		ug/L		102	60 - 140
n-Butylbenzene	25.0	22.6		ug/L		90	65 - 150
N-Propylbenzene	25.0	22.6		ug/L		90	67 - 139
o-Xylene	25.0	26.8		ug/L		107	70 - 130
p-Isopropyltoluene	25.0	23.6		ug/L		95	70 - 132
sec-Butylbenzene	25.0	22.7		ug/L		91	70 - 138
Styrene	25.0	27.8		ug/L		111	70 - 134
tert-Butylbenzene	25.0	23.3		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.0		ug/L		112	60 - 141
1,1,2,2-Tetrachloroethane	25.0	25.9		ug/L		104	63 - 130
Tetrachloroethene	25.0	23.1		ug/L		92	70 - 130
Toluene	25.0	24.2		ug/L		97	70 - 130
trans-1,2-Dichloroethene	25.0	25.4		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	28.5		ug/L		114	70 - 132
1,2,3-Trichlorobenzene	25.0	25.8		ug/L		103	60 - 140
1,2,4-Trichlorobenzene	25.0	25.4		ug/L		101	60 - 140
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	70 - 130
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	70 - 130
Trichloroethene	25.0	25.3		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	20.7		ug/L		83	60 - 150
1,2,3-Trichloropropane	25.0	25.9		ug/L		103	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.5		ug/L		94	60 - 140
1,2,4-Trimethylbenzene	25.0	24.1		ug/L		96	70 - 135
1,3,5-Trimethylbenzene	25.0	23.3		ug/L		93	70 - 136
Vinyl chloride	25.0	18.4		ug/L		74	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

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

Lab Sample ID: LCS 440-332556/6
Matrix: Water
Analysis Batch: 332556

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	197	J	ug/L		79	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Dibromofluoromethane (Surr)	*110*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Lab Sample ID: 440-147803-B-4 MS
Matrix: Water
Analysis Batch: 332556

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	32.8		ug/L		131	10 - 150
Benzene	ND		25.0	25.0		ug/L		100	66 - 130
Bromobenzene	ND		25.0	26.3		ug/L		105	70 - 130
Bromochloromethane	ND		25.0	26.3		ug/L		105	70 - 130
Bromodichloromethane	ND		25.0	28.5		ug/L		114	70 - 138
Bromoform	ND		25.0	30.6		ug/L		122	59 - 150
Bromomethane	ND		25.0	21.7		ug/L		87	62 - 131
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	60 - 150
Chlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
Chloroethane	ND		25.0	21.3		ug/L		85	68 - 130
Chloroform	ND		25.0	26.0		ug/L		104	70 - 130
Chloromethane	ND		25.0	19.3		ug/L		77	39 - 144
2-Chlorotoluene	ND		25.0	24.3		ug/L		97	70 - 130
4-Chlorotoluene	ND		25.0	24.8		ug/L		99	70 - 130
cis-1,2-Dichloroethene	ND		25.0	26.4		ug/L		104	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.5		ug/L		110	70 - 133
Dibromochloromethane	ND		25.0	27.3		ug/L		109	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	27.9		ug/L		112	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.2		ug/L		109	70 - 131
Dibromomethane	ND		25.0	27.9		ug/L		111	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130
Dichlorodifluoromethane	1.3		25.0	17.4		ug/L		65	25 - 142
1,1-Dichloroethane	ND		25.0	25.2		ug/L		101	65 - 130
1,2-Dichloroethane	ND		25.0	27.4		ug/L		109	56 - 146
1,1-Dichloroethene	ND		25.0	30.1		ug/L		121	70 - 130
1,2-Dichloropropane	ND		25.0	28.6		ug/L		114	69 - 130
1,3-Dichloropropane	ND		25.0	26.2		ug/L		105	70 - 130
2,2-Dichloropropane	ND		25.0	25.9		ug/L		104	69 - 138
1,1-Dichloropropene	ND		25.0	25.4		ug/L		102	64 - 130
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130
Hexachlorobutadiene	ND		25.0	24.6		ug/L		98	10 - 150
Isopropylbenzene	ND		25.0	24.9		ug/L		100	70 - 132
Methylene Chloride	ND		25.0	26.4		ug/L		105	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	28.2		ug/L		113	70 - 130

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

Lab Sample ID: 440-147803-B-4 MS
Matrix: Water
Analysis Batch: 332556

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m,p-Xylene	ND		25.0	26.1		ug/L		104	70 - 133
Naphthalene	ND		25.0	27.6		ug/L		111	60 - 140
n-Butylbenzene	ND		25.0	24.6		ug/L		98	61 - 149
N-Propylbenzene	ND		25.0	24.1		ug/L		96	66 - 135
o-Xylene	ND		25.0	26.5		ug/L		106	70 - 133
p-Isopropyltoluene	ND		25.0	24.7		ug/L		99	70 - 130
sec-Butylbenzene	ND		25.0	24.4		ug/L		98	67 - 134
Styrene	ND		25.0	27.8		ug/L		111	29 - 150
tert-Butylbenzene	ND		25.0	24.0		ug/L		96	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	26.8		ug/L		107	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	63 - 130
Tetrachloroethene	4.3		25.0	27.5		ug/L		93	70 - 137
Toluene	ND		25.0	23.9		ug/L		95	70 - 130
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.3		ug/L		113	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	27.5		ug/L		110	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	27.3		ug/L		109	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.9		ug/L		104	70 - 130
1,1,2-Trichloroethane	ND		25.0	26.1		ug/L		104	70 - 130
Trichloroethene	2.3		25.0	28.4		ug/L		104	70 - 130
Trichlorofluoromethane	ND		25.0	20.5		ug/L		82	60 - 150
1,2,3-Trichloropropane	ND		25.0	29.1		ug/L		116	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.8		ug/L		99	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.1		ug/L		100	70 - 130
Vinyl chloride	ND		25.0	17.0		ug/L		68	50 - 137
Isopropyl alcohol	ND		250	ND		ug/L		90	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

Lab Sample ID: 440-147803-B-4 MSD
Matrix: Water
Analysis Batch: 332556

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	30.2		ug/L		121	10 - 150	8	35
Benzene	ND		25.0	25.4		ug/L		102	66 - 130	1	20
Bromobenzene	ND		25.0	26.7		ug/L		107	70 - 130	2	20
Bromochloromethane	ND		25.0	26.8		ug/L		107	70 - 130	2	25
Bromodichloromethane	ND		25.0	29.4		ug/L		118	70 - 138	3	20
Bromoform	ND		25.0	32.4		ug/L		129	59 - 150	6	25
Bromomethane	ND		25.0	22.1		ug/L		88	62 - 131	2	25
Carbon tetrachloride	ND		25.0	26.4		ug/L		105	60 - 150	4	25
Chlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	4	20

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

Lab Sample ID: 440-147803-B-4 MSD
Matrix: Water
Analysis Batch: 332556

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		25.0	21.7		ug/L		87	68 - 130	2	25
Chloroform	ND		25.0	26.5		ug/L		106	70 - 130	2	20
Chloromethane	ND		25.0	19.6		ug/L		78	39 - 144	2	25
2-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130	2	20
4-Chlorotoluene	ND		25.0	24.9		ug/L		100	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	27.0		ug/L		106	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	70 - 133	4	20
Dibromochloromethane	ND		25.0	28.5		ug/L		114	70 - 148	5	25
1,2-Dibromo-3-Chloropropane	ND		25.0	27.0		ug/L		108	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	28.4		ug/L		114	70 - 131	4	25
Dibromomethane	ND		25.0	28.8		ug/L		115	70 - 130	3	25
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	25.2		ug/L		101	70 - 130	0	20
1,4-Dichlorobenzene	ND		25.0	25.7		ug/L		103	70 - 130	0	20
Dichlorodifluoromethane	1.3		25.0	17.9		ug/L		66	25 - 142	3	30
1,1-Dichloroethane	ND		25.0	25.6		ug/L		102	65 - 130	2	20
1,2-Dichloroethane	ND		25.0	27.6		ug/L		111	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	31.0		ug/L		124	70 - 130	3	20
1,2-Dichloropropane	ND		25.0	29.1		ug/L		117	69 - 130	2	20
1,3-Dichloropropane	ND		25.0	27.4		ug/L		110	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	27.4		ug/L		110	69 - 138	6	25
1,1-Dichloropropene	ND		25.0	25.7		ug/L		103	64 - 130	1	20
Ethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130	6	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	3	20
Isopropylbenzene	ND		25.0	26.1		ug/L		104	70 - 132	5	20
Methylene Chloride	ND		25.0	26.5		ug/L		106	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	29.0		ug/L		116	70 - 130	3	25
m,p-Xylene	ND		25.0	27.9		ug/L		112	70 - 133	7	25
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140	0	30
n-Butylbenzene	ND		25.0	24.6		ug/L		98	61 - 149	0	20
N-Propylbenzene	ND		25.0	24.4		ug/L		98	66 - 135	1	20
o-Xylene	ND		25.0	28.1		ug/L		113	70 - 133	6	20
p-Isopropyltoluene	ND		25.0	25.9		ug/L		104	70 - 130	5	20
sec-Butylbenzene	ND		25.0	24.4		ug/L		98	67 - 134	0	20
Styrene	ND		25.0	29.6		ug/L		119	29 - 150	6	35
tert-Butylbenzene	ND		25.0	25.0		ug/L		100	70 - 130	4	20
1,1,1,2-Tetrachloroethane	ND		25.0	27.8		ug/L		111	60 - 149	4	20
1,1,2,2-Tetrachloroethane	ND		25.0	28.5		ug/L		114	63 - 130	1	30
Tetrachloroethene	4.3		25.0	29.2		ug/L		100	70 - 137	6	20
Toluene	ND		25.0	25.1		ug/L		100	70 - 130	5	20
trans-1,2-Dichloroethene	ND		25.0	26.6		ug/L		106	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	29.6		ug/L		118	70 - 138	4	25
1,2,3-Trichlorobenzene	ND		25.0	27.5		ug/L		110	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	27.5		ug/L		110	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	26.6		ug/L		106	70 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	27.0		ug/L		108	70 - 130	4	25
Trichloroethene	2.3		25.0	29.0		ug/L		107	70 - 130	2	20
Trichlorofluoromethane	ND		25.0	20.9		ug/L		84	60 - 150	2	25

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

Lab Sample ID: 440-147803-B-4 MSD
Matrix: Water
Analysis Batch: 332556

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		25.0	28.5		ug/L		114	60 - 130	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	25.6		ug/L		102	60 - 140	3	20
1,2,4-Trimethylbenzene	ND		25.0	25.7		ug/L		103	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	25.1		ug/L		100	70 - 130	0	20
Vinyl chloride	ND		25.0	17.3		ug/L		69	50 - 137	2	30
Isopropyl alcohol	ND		250	ND		ug/L		89	46 - 142	1	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-331724/1-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331724

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
1,2-Dichlorobenzene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
1,3-Dichlorobenzene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
1,4-Dichlorobenzene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4,5-Trichlorophenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4,6-Trichlorophenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4-Dichlorophenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4-Dimethylphenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4-Dinitrophenol	ND		40	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,4-Dinitrotoluene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2,6-Dinitrotoluene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Chloronaphthalene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Chlorophenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Methylnaphthalene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Methylphenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Nitroaniline	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
2-Nitrophenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
3,3'-Dichlorobenzidine	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
3-Nitroaniline	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
4-Bromophenyl phenyl ether	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
4-Chloro-3-methylphenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
4-Chloroaniline	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
4-Nitroaniline	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-331724/1-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331724

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Acenaphthene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Acenaphthylene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Aniline	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Anthracene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzidine	ND		40	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzo[a]anthracene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzo[a]pyrene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzo[b]fluoranthene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzo[g,h,i]perylene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzo[k]fluoranthene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzoic acid	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Benzyl alcohol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Bis(2-chloroethyl)ether	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Butyl benzyl phthalate	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Chrysene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Dibenz(a,h)anthracene	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Dibenzofuran	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Diethyl phthalate	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Dimethyl phthalate	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Di-n-butyl phthalate	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Di-n-octyl phthalate	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Fluoranthene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Fluorene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Hexachlorobenzene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Hexachlorobutadiene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Hexachlorocyclopentadiene	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Hexachloroethane	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Isophorone	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Naphthalene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Nitrobenzene	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
N-Nitrosodimethylamine	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
N-Nitrosodiphenylamine	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Pentachlorophenol	ND		20	ug/L		05/20/16 10:31	05/23/16 16:02	1
Phenanthrene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Phenol	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1
Pyrene	ND		10	ug/L		05/20/16 10:31	05/23/16 16:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*71*		*40 - 120*	*05/20/16 10:31*	*05/23/16 16:02*	*1*
2-Fluorobiphenyl	*69*		*50 - 120*	*05/20/16 10:31*	*05/23/16 16:02*	*1*
2-Fluorophenol (Surr)	*59*		*30 - 120*	*05/20/16 10:31*	*05/23/16 16:02*	*1*
Nitrobenzene-d5 (Surr)	*68*		*45 - 120*	*05/20/16 10:31*	*05/23/16 16:02*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-331724/1-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 331724

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6 (Surr)	65		35 - 120	05/20/16 10:31	05/23/16 16:02	1
Terphenyl-d14 (Surr)	77		10 - 150	05/20/16 10:31	05/23/16 16:02	1

Lab Sample ID: LCS 440-331724/2-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331724

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	58.7		ug/L		59	25 - 84
1,2-Dichlorobenzene	100	58.6		ug/L		59	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	87.0		ug/L		86	44 - 113
1,3-Dichlorobenzene	100	55.9		ug/L		56	20 - 80
1,4-Dichlorobenzene	100	56.9		ug/L		57	22 - 81
2,4,5-Trichlorophenol	100	73.2		ug/L		73	24 - 121
2,4,6-Trichlorophenol	100	73.3		ug/L		73	20 - 121
2,4-Dichlorophenol	100	71.0		ug/L		71	23 - 113
2,4-Dimethylphenol	100	69.0		ug/L		69	39 - 94
2,4-Dinitrophenol	200	168		ug/L		84	23 - 134
2,4-Dinitrotoluene	100	86.8		ug/L		87	54 - 115
2,6-Dinitrotoluene	100	80.4		ug/L		80	50 - 115
2-Chloronaphthalene	100	69.0		ug/L		69	34 - 102
2-Chlorophenol	100	64.1		ug/L		64	20 - 106
2-Methylnaphthalene	100	68.2		ug/L		68	34 - 98
2-Methylphenol	100	70.3		ug/L		70	36 - 103
2-Nitroaniline	100	82.6		ug/L		83	48 - 111
2-Nitrophenol	100	67.5		ug/L		67	20 - 117
3,3'-Dichlorobenzidine	100	69.8		ug/L		70	22 - 97
3-Methylphenol + 4-Methylphenol	100	71.7		ug/L		72	35 - 106
3-Nitroaniline	100	89.7		ug/L		90	51 - 116
4,6-Dinitro-2-methylphenol	200	164		ug/L		82	28 - 139
4-Bromophenyl phenyl ether	100	75.7		ug/L		76	42 - 113
4-Chloro-3-methylphenol	100	81.8		ug/L		82	44 - 110
4-Chloroaniline	100	80.4		ug/L		80	42 - 109
4-Chlorophenyl phenyl ether	100	74.6		ug/L		75	38 - 115
4-Nitroaniline	100	91.2		ug/L		91	50 - 116
4-Nitrophenol	200	171		ug/L		86	26 - 132
Acenaphthene	100	79.8		ug/L		80	37 - 107
Acenaphthylene	100	74.7		ug/L		75	39 - 107
Aniline	100	70.0		ug/L		70	27 - 115
Anthracene	100	78.6		ug/L		79	42 - 120
Benzidine	100	79.1		ug/L		79	5 - 150
Benzo[a]anthracene	100	79.5		ug/L		80	42 - 115
Benzo[a]pyrene	100	96.2		ug/L		96	41 - 117
Benzo[b]fluoranthene	100	103		ug/L		103	36 - 113
Benzo[g,h,i]perylene	100	127	*	ug/L		127	37 - 115
Benzo[k]fluoranthene	100	100		ug/L		100	42 - 122
Benzoic acid	100	69.1		ug/L		69	15 - 121

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-331724/2-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 331724

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzyl alcohol	100	75.2		ug/L		75	39 - 106
bis (2-chloroisopropyl) ether	100	65.3		ug/L		65	38 - 104
Bis(2-chloroethoxy)methane	100	70.1		ug/L		70	47 - 104
Bis(2-chloroethyl)ether	100	65.2		ug/L		65	42 - 99
Bis(2-ethylhexyl) phthalate	100	84.2		ug/L		84	43 - 124
Butyl benzyl phthalate	100	82.3		ug/L		82	44 - 122
Chrysene	100	79.0		ug/L		79	42 - 118
Dibenz(a,h)anthracene	100	101		ug/L		101	40 - 114
Dibenzofuran	100	74.7		ug/L		75	37 - 113
Diethyl phthalate	100	92.7		ug/L		93	51 - 120
Dimethyl phthalate	100	82.2		ug/L		82	49 - 113
Di-n-butyl phthalate	100	88.2		ug/L		88	47 - 125
Di-n-octyl phthalate	100	82.3		ug/L		82	42 - 125
Fluoranthene	100	85.5		ug/L		85	44 - 119
Fluorene	100	80.1		ug/L		80	39 - 116
Hexachlorobenzene	100	75.3		ug/L		75	43 - 112
Hexachlorobutadiene	100	50.7		ug/L		51	14 - 77
Hexachlorocyclopentadiene	100	43.2		ug/L		43	10 - 77
Hexachloroethane	100	53.4		ug/L		53	13 - 75
Indeno[1,2,3-cd]pyrene	100	104		ug/L		104	35 - 116
Isophorone	100	77.9		ug/L		78	48 - 107
Naphthalene	100	65.6		ug/L		66	33 - 95
Nitrobenzene	100	67.0		ug/L		67	42 - 99
N-Nitrosodimethylamine	100	57.1		ug/L		57	35 - 96
N-Nitrosodi-n-propylamine	100	74.6		ug/L		75	44 - 111
N-Nitrosodiphenylamine	100	77.1		ug/L		77	46 - 116
Pentachlorophenol	200	161		ug/L		80	26 - 136
Phenanthrene	100	78.3		ug/L		78	43 - 120
Phenol	100	64.7		ug/L		65	25 - 99
Pyrene	100	81.8		ug/L		82	43 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*73*		*40 - 120*
2-Fluorobiphenyl	*65*		*50 - 120*
2-Fluorophenol (Surr)	*55*		*30 - 120*
Nitrobenzene-d5 (Surr)	*64*		*45 - 120*
Phenol-d6 (Surr)	*62*		*35 - 120*
Terphenyl-d14 (Surr)	*76*		*10 - 150*

Lab Sample ID: LCSD 440-331724/3-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 331724

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	60.3		ug/L		60	25 - 84	3	35
1,2-Dichlorobenzene	100	58.7		ug/L		59	24 - 85	0	35
1,2-Diphenylhydrazine(as Azobenzene)	101	90.9		ug/L		90	44 - 113	4	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-331724/3-A
Matrix: Water
Analysis Batch: 332224

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 331724

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	100	57.0		ug/L		57	20 - 80	2	35
1,4-Dichlorobenzene	100	56.3		ug/L		56	22 - 81	1	35
2,4,5-Trichlorophenol	100	76.5		ug/L		76	24 - 121	4	35
2,4,6-Trichlorophenol	100	75.8		ug/L		76	20 - 121	3	35
2,4-Dichlorophenol	100	71.7		ug/L		72	23 - 113	1	35
2,4-Dimethylphenol	100	71.4		ug/L		71	39 - 94	4	35
2,4-Dinitrophenol	200	172		ug/L		86	23 - 134	3	35
2,4-Dinitrotoluene	100	92.6		ug/L		93	54 - 115	6	35
2,6-Dinitrotoluene	100	84.5		ug/L		84	50 - 115	5	35
2-Chloronaphthalene	100	71.3		ug/L		71	34 - 102	3	35
2-Chlorophenol	100	63.8		ug/L		64	20 - 106	0	35
2-Methylnaphthalene	100	71.5		ug/L		71	34 - 98	5	35
2-Methylphenol	100	70.8		ug/L		71	36 - 103	1	35
2-Nitroaniline	100	85.5		ug/L		86	48 - 111	3	35
2-Nitrophenol	100	67.1		ug/L		67	20 - 117	1	35
3,3'-Dichlorobenzidine	100	62.5		ug/L		63	22 - 97	11	35
3-Methylphenol + 4-Methylphenol	100	75.0		ug/L		75	35 - 106	4	35
3-Nitroaniline	100	87.5		ug/L		87	51 - 116	3	35
4,6-Dinitro-2-methylphenol	200	173		ug/L		86	28 - 139	5	35
4-Bromophenyl phenyl ether	100	78.8		ug/L		79	42 - 113	4	35
4-Chloro-3-methylphenol	100	86.9		ug/L		87	44 - 110	6	35
4-Chloroaniline	100	78.2		ug/L		78	42 - 109	3	35
4-Chlorophenyl phenyl ether	100	78.4		ug/L		78	38 - 115	5	35
4-Nitroaniline	100	95.6		ug/L		96	50 - 116	5	35
4-Nitrophenol	200	186		ug/L		93	26 - 132	8	35
Acenaphthene	100	83.3		ug/L		83	37 - 107	4	35
Acenaphthylene	100	76.1		ug/L		76	39 - 107	2	35
Aniline	100	66.2		ug/L		66	27 - 115	6	35
Anthracene	100	83.7		ug/L		84	42 - 120	6	35
Benzidine	100	60.8		ug/L		61	5 - 150	26	35
Benzo[a]anthracene	100	85.4		ug/L		85	42 - 115	7	35
Benzo[a]pyrene	100	102		ug/L		102	41 - 117	6	35
Benzo[b]fluoranthene	100	111		ug/L		111	36 - 113	7	35
Benzo[g,h,i]perylene	100	141	*	ug/L		141	37 - 115	10	35
Benzo[k]fluoranthene	100	108		ug/L		108	42 - 122	8	35
Benzoic acid	100	69.8		ug/L		70	15 - 121	1	35
Benzyl alcohol	100	75.3		ug/L		75	39 - 106	0	35
bis (2-chloroisopropyl) ether	100	63.8		ug/L		64	38 - 104	2	35
Bis(2-chloroethoxy)methane	100	72.0		ug/L		72	47 - 104	3	35
Bis(2-chloroethyl)ether	100	66.5		ug/L		66	42 - 99	2	35
Bis(2-ethylhexyl) phthalate	100	88.0		ug/L		88	43 - 124	4	35
Butyl benzyl phthalate	100	85.4		ug/L		85	44 - 122	4	35
Chrysene	100	84.0		ug/L		84	42 - 118	6	35
Dibenz(a,h)anthracene	100	110		ug/L		110	40 - 114	9	35
Dibenzofuran	100	78.2		ug/L		78	37 - 113	5	35
Diethyl phthalate	100	98.3		ug/L		98	51 - 120	6	35
Dimethyl phthalate	100	85.6		ug/L		86	49 - 113	4	35
Di-n-butyl phthalate	100	93.1		ug/L		93	47 - 125	5	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-331724/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 332224 — **Prep Batch: 331724**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-octyl phthalate	100	86.8		ug/L		87	42 - 125	5	35
Fluoranthene	100	91.4		ug/L		91	44 - 119	7	35
Fluorene	100	85.5		ug/L		85	39 - 116	6	35
Hexachlorobenzene	100	78.8		ug/L		79	43 - 112	4	35
Hexachlorobutadiene	100	49.2		ug/L		49	14 - 77	3	35
Hexachlorocyclopentadiene	100	44.0		ug/L		44	10 - 77	2	35
Hexachloroethane	100	54.3		ug/L		54	13 - 75	2	35
Indeno[1,2,3-cd]pyrene	100	114		ug/L		114	35 - 116	10	35
Isophorone	100	81.5		ug/L		81	48 - 107	4	35
Naphthalene	100	67.0		ug/L		67	33 - 95	2	35
Nitrobenzene	100	67.7		ug/L		68	42 - 99	1	35
N-Nitrosodimethylamine	100	59.6		ug/L		60	35 - 96	4	35
N-Nitrosodi-n-propylamine	100	74.2		ug/L		74	44 - 111	1	35
N-Nitrosodiphenylamine	100	79.2		ug/L		79	46 - 116	3	35
Pentachlorophenol	200	170		ug/L		85	26 - 136	6	35
Phenanthrene	100	83.7		ug/L		84	43 - 120	7	35
Phenol	100	63.1		ug/L		63	25 - 99	2	35
Pyrene	100	84.4		ug/L		84	43 - 119	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*79*		*40 - 120*
2-Fluorobiphenyl	*69*		*50 - 120*
2-Fluorophenol (Surr)	*53*		*30 - 120*
Nitrobenzene-d5 (Surr)	*67*		*45 - 120*
Phenol-d6 (Surr)	*60*		*35 - 120*
Terphenyl-d14 (Surr)	*80*		*10 - 150*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-331707/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331941 — **Prep Batch: 331707**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	ug/L		05/20/16 09:39	05/21/16 16:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*49*		*36 - 90*	*05/20/16 09:39*	*05/21/16 16:00*	*1*

Lab Sample ID: LCS 440-331707/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331941 — **Prep Batch: 331707**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	1.13		ug/L		56	36 - 120

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCS 440-331707/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331941 — **Prep Batch: 331707**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*50*		*36 - 90*

Lab Sample ID: 440-147829-I-7-A MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331941 — **Prep Batch: 331707**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.7	F1	2.00	4.21		ug/L		75	12 - 100	17	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*46*		*36 - 90*

Lab Sample ID: 440-147829-J-7-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331941 — **Prep Batch: 331707**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	2.7	F1	2.12	4.98	F1	ug/L		107	12 - 100		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*52*		*36 - 90*

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-331601/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331601

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0		mg/L			05/19/16 20:54	1

Lab Sample ID: LCS 440-331601/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331601

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	1000		mg/L		100	85 - 115		

Lab Sample ID: 440-147926-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 331601

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	57			57.0		mg/L				0	10

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-147777-E-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 332220

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.84			7.740		SU				1	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-332045/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 332077 — **Prep Batch: 332045**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050		mg/L		05/22/16 16:30	05/23/16 00:31	1

Lab Sample ID: LCS 440-332045/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 332077 — **Prep Batch: 332045**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved			0.500	0.514		mg/L		103	80 - 120		

Lab Sample ID: LCSD 440-332045/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 332077 — **Prep Batch: 332045**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved			0.500	0.514		mg/L		103	80 - 120	0	20

Lab Sample ID: 440-147969-B-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 332077 — **Prep Batch: 332045**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved	ND	HF	0.500	0.520	HF	mg/L		99	70 - 130		

Lab Sample ID: 440-147969-B-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 332077 — **Prep Batch: 332045**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.500	0.518	HF	mg/L		98	70 - 130	0	30

Method: SM 5220D - COD

Lab Sample ID: MB 440-332929/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 332929

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20		mg/L			05/26/16 11:20	1

Method: SM 5220D - COD (Continued)

Lab Sample ID: LCS 440-332929/4
Matrix: Water
Analysis Batch: 332929

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand			200	204		mg/L		102	90 - 110		

Lab Sample ID: 440-148213-B-1 MS
Matrix: Water
Analysis Batch: 332929

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chemical Oxygen Demand	110		100	209		mg/L		95	70 - 120		

Lab Sample ID: 440-148213-B-1 MSD
Matrix: Water
Analysis Batch: 332929

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	110		100	209		mg/L		96	70 - 120	0	15

Lab Sample ID: 440-148213-B-1 DU
Matrix: Water
Analysis Batch: 332929

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chemical Oxygen Demand	110			116		mg/L				2	15

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

GC/MS VOA

Analysis Batch: 331655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147620-D-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-147620-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-147913-2	Grab	Total/NA	Water	8260B	
LCS 440-331655/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-331655/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 332556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147803-B-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-147803-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-147913-2	Grab	Total/NA	Water	8260B	
LCS 440-332556/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-332556/6	Lab Control Sample	Total/NA	Water	8260B	
MB 440-332556/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 331707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147829-I-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	
440-147829-J-7-A MS	Matrix Spike	Total/NA	Water	3520C	
440-147913-2	Grab	Total/NA	Water	3520C	
LCS 440-331707/2-A	Lab Control Sample	Total/NA	Water	3520C	
MB 440-331707/1-A	Method Blank	Total/NA	Water	3520C	

Prep Batch: 331724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-2	Grab	Total/NA	Water	3520C	
LCS 440-331724/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-331724/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-331724/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 331941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147829-I-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	331707
440-147829-J-7-A MS	Matrix Spike	Total/NA	Water	8270C SIM	331707
440-147913-2	Grab	Total/NA	Water	8270C SIM	331707
LCS 440-331707/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	331707
MB 440-331707/1-A	Method Blank	Total/NA	Water	8270C SIM	331707

Analysis Batch: 332224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-331724/2-A	Lab Control Sample	Total/NA	Water	8270C	331724
LCSD 440-331724/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	331724
MB 440-331724/1-A	Method Blank	Total/NA	Water	8270C	331724

Analysis Batch: 332226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-2	Grab	Total/NA	Water	8270C	331724

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

General Chemistry

Analysis Batch: 331601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-1	Composite	Total/NA	Water	SM 2540D	
440-147926-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 440-331601/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-331601/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 332045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-2	Grab	Dissolved	Water	SM 4500 S2 B	
440-147969-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-147969-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	
LCS 440-332045/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
LCSD 440-332045/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 B	
MB 440-332045/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 332077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-2	Grab	Dissolved	Water	SM 4500 S2 D	332045
440-147969-B-2-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	332045
440-147969-B-2-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	332045
LCS 440-332045/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	332045
LCSD 440-332045/3-A	Lab Control Sample Dup	Dissolved	Water	SM 4500 S2 D	332045
MB 440-332045/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	332045

Analysis Batch: 332220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147777-E-2 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	
440-147913-2	Grab	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 332929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147913-1	Composite	Total/NA	Water	SM 5220D	
440-148213-B-1 DU	Duplicate	Total/NA	Water	SM 5220D	
440-148213-B-1 MS	Matrix Spike	Total/NA	Water	SM 5220D	
440-148213-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5220D	
LCS 440-332929/4	Lab Control Sample	Total/NA	Water	SM 5220D	
MB 440-332929/3	Method Blank	Total/NA	Water	SM 5220D	

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Qualifiers

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.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-147913-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312016-2	07-31-16
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

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	Sampler: Efrain Figueroa	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-93578-16300.1
Client Contact: Pamela Henriksen	Phone: (949)283-0504	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: Jacob & Hefner Associates P.C.				Job #:
Address: 15375 Barranca Parkway, J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618				
Phone: 949-274-0297(Tel)	PO #: Omega Chemical Wastewater			
Email: phenriksen@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 4400 [illegible]			
Site: California	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D - COD	2540D - TSS	SM4500_S2_D - Dissolved Sulfide	8260B_LL - VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ - pH	8260B_LL - A+A+2CVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	B	A	N	N	N		
Composite	5/18-19/16	9:10	C	Water			X	X						3	Isco Start: May 18th 2016 @ 0900
Grab	5/19/16	9:14	G	Water					X	X	X	X	X	12	Meter - 315378
															Isco End: May 19th 2016 @ 0900
															371704
															pH 8.8 Ef.
															Temp. 16.8°C
															Sampling Time: 3Hrs

440-147913 Chain of Custody

Preservation Codes:

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

Other:

AS 05/19/16

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 5/19/16 13:04	Company: TAI	Received by: [signature]	Date/Time: 5/19/16 13:04	Company: TAI
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: 3.1/2.9 IR 7.8

5/27/2016

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-147913-1

Login Number: 147913
List Number: 1
Creator: Avila, Stephanie 1

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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

OMEGA CHEMICAL SITE PRP ORGANIZED GROUP
1322 Scott Street
Suite 104
San Diego, Ca 92106
(619) 546-8377
(619) 546-9980 FAX
e-mail: edm@demaximis.com

October 13, 2016

Ms. Grace Robinson Hyde
Chief Engineer and General Manager
County Sanitation Districts of Los Angeles County
1955 Workman Mill Road
Whittier, CA 90601-1400

Subject: Self-Monitoring Report -3rd Quarter 2016
Permit Number 20039, Surcharge Account Number 2113183

Dear Ms. Grace Robinson Hyde,

This letter transmits the 3rd Quarter 2016 Self-Monitoring Report (SMR) for the Omega Chemical Site located at 12520 East Whittier Blvd, Whittier, California. Feel free to contact me if you need any additional information.

Sincerely,

Omega Chemical Site PRP Organized Group

Edward Modiano
Project Coordinator

SANITATION DISTRICTS OF LOS ANGELES COUNTY

GRACE ROBINSON HYDE
CHIEF ENGINEER
AND GENERAL MANAGER

For information, please call Loretta Benites
(562) 699-7411 Ext. 2927

Permit Number: 20039
Facility ID: 2113183

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Reporting Period From: 07/01/2016 To: 09/30/2016 Report Due No Later Than : 10/17/2016

Company Name: **Omega Chemical Site PRP Group LLC**
Wastewater Discharge Address: **12520 WHITTIER Blvd Whittier, CA, 90602**
Sample Location: **20039A**
Mailing Address: **1322 Scott Street # 104 San Diego, CA, 92106**
Industrial Wastewater Contact Name and Phone Number: **Mr. Ravi Subramanian** **949-752-5452 x277 - Business**

Has Ownership or Occupancy Changed Since the Last Report? ☐ Yes ☒ No

(Print) Name of Company Collecting Wastewater Sample: TEQ AmeriCA

(Print) Sample Date: 8/18/16

Daily Wastewater Discharge for Reporting Period
Average: 4117 GPD
Maximum: 4701 GPD

Method For Determining Wastewater Flow for Sampling Day
☒ Direct Measurement
☐ Adjusted Metered Water Supply
☐ No Discharge During Reporting Period

Type of Composite Sample
☒ Time Composite
☐ Flow Proportioned Composite

Comments:

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
Z02 Sample Day Peak Flow			9.8		gpm	10256
Z01 Sample Day Total Flow			4116		GPD	10256
101 pH	GRAB	Federal Daily Minimum 5.0 S.U. Local Daily Minimum 6.0 S.U.	8.6	0.1	S.U.	10256
151 Solids, Suspended	COMPOSITE		1.6	1.0	mg/L	10256
252 Sulfide, Soluble	GRAB	Local At Any Time 0.1 mg/L	ND	0.05	mg/L	10256
403 COD, Total	COMPOSITE		40	10	mg/L	10256
696 1,4-Dioxane	GRAB		36	2.5	ug/L	10256
T09 TTO, Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
601 Methylene Chloride	GRAB		ND	5.0	ug/L	10256
602 Chloroform	GRAB		ND	1.0	ug/L	10256
603 1,1,1-Trichloroethane	GRAB		ND	1.0	ug/L	10256
604 Carbon Tetrachloride	GRAB		ND	0.5	ug/L	10256
605 1,1-Dichloroethene	GRAB		ND	1.0	ug/L	10256
606 Trichloroethylene	GRAB		ND	1.0	ug/L	10256
607 Tetrachloroethylene	GRAB		ND	1.0	ug/L	10256
608 Bromodichloromethane	GRAB		ND	1.0	ug/L	10256
609 Dibromochloromethane	GRAB		ND	1.0	ug/L	10256
610 Bromoform	GRAB		ND	1.0	ug/L	10256
611 Chlorobenzene	GRAB		ND	1.0	ug/L	10256
612 Vinyl Chloride	GRAB		ND	0.5	ug/L	10256
613 o-Dichlorobenzene	GRAB		ND	1.0	ug/L	10256
614 m-Dichlorobenzene	GRAB		ND	1.0	ug/L	10256

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/17/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2016** To: **09/30/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
615 p-Dichlorobenzene	GRAB		ND	1.0	ug/L	10256
616 1,1-Dichloroethane	GRAB		ND	1.0	ug/L	10256
618 1,1,2-Trichloroethane	GRAB		ND	1.0	ug/L	10256
619 1,2-Dichloroethane	GRAB		ND	1.0	ug/L	10256
620 Benzene	GRAB		ND	0.5	ug/L	10256
621 Toluene	GRAB		ND	1.0	ug/L	10256
624 Ethyl Benzene	GRAB		ND	1.0	ug/L	10256
645 trans-1,2-Dichloroethylene	GRAB		ND	1.0	ug/L	10256
646 Bromomethane	GRAB		ND	1.0	ug/L	10256
647 Chloroethane	GRAB		ND	1.0	ug/L	10256
648 2-Chloroethylvinylether	GRAB		ND	2.0	ug/L	10256
649 Chloromethane	GRAB		ND	1.0	ug/L	10256
650 1,2-Dichloropropane	GRAB		ND	1.0	ug/L	10256
651 cis-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
652 trans-1,3-Dichloropropene	GRAB		ND	0.5	ug/L	10256
653 1,1,2,2-Tetrachloroethane	GRAB		ND	1.0	ug/L	10256
T10 TTO, Semi-Volatile	GRAB	Local At Any Time 1000 ug/L	LACSD calculates this value.		ug/L	10256
800 Acenaphthene	GRAB		ND	9.8	ug/L	10256
801 Acenaphthylene	GRAB		ND	9.8	ug/L	10256
802 Anthracene	GRAB		ND	9.8	ug/L	10256
803 Benzidine	GRAB		ND	39	ug/L	10256
804 Benzo(a)anthracene	GRAB		ND	9.8	ug/L	10256
805 Benzo(a)pyrene	GRAB		ND	9.8	ug/L	10256
806 Benzo(b)fluoranthene	GRAB		ND	9.8	ug/L	10256
807 Benzo(g.h.i.)perylene	GRAB		ND	9.8	ug/L	10256
808 Benzo(k)fluoranthene	GRAB		ND	9.8	ug/L	10256
809 Bis(2-cl-ethoxy)methane	GRAB		ND	9.8	ug/L	10256
810 Bis(2-chloroethyl)ether	GRAB		ND	9.8	ug/L	10256
811 Bis(2-cl-isopropyl)ether	GRAB		ND	9.8	ug/L	10256
812 bis(2-ethylhexyl) Phthalate	GRAB		ND	20	ug/L	10256
813 4-bromophenyl Phenylether	GRAB		ND	9.8	ug/L	10256
814 butylbenzyl Phthalate	GRAB		ND	20	ug/L	10256
815 2-Chloronaphthalene	GRAB		ND	9.8	ug/L	10256
816 4-Chlorophenylphenylether	GRAB		ND	9.8	ug/L	10256
817 Chrysene	GRAB		ND	9.8	ug/L	10256
818 dibenzo(a,h)Anthracene	GRAB		ND	20	ug/L	10256
822 3,3-Dichlorobenzidine	GRAB		ND	20	ug/L	10256
823 diethyl Phthalate	GRAB		ND	9.8	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/17/2016

Permit Number: 20039
Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2016** To: **09/30/2016**

Parameter (1)	Sample Method (2)	Permit Limit (3)	Test Results (4)	Reporting Limit (5)	Unit (6)	Lab ID Code (7)
824 dimethyl Phthalate	GRAB		ND	9.8	ug/L	10256
825 di-n-butyl Phthalate	GRAB		ND	20	ug/L	10256
826 2,4-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
827 2,6-Dinitrotoluene	GRAB		ND	9.8	ug/L	10256
828 di-n-octyl Phthalate	GRAB		ND	20	ug/L	10256
829 1,2-Diphenylhydrazine	GRAB		ND	20	ug/L	10256
830 Fluoranthene	GRAB		ND	9.8	ug/L	10256
831 Fluorene	GRAB		ND	9.8	ug/L	10256
832 Hexachlorobenzene	GRAB		ND	9.8	ug/L	10256
833 Hexachlorobutadiene	GRAB		ND	9.8	ug/L	10256
834 Hexachlorocyclopentadiene	GRAB		ND	20	ug/L	10256
835 Hexachloroethane	GRAB		ND	9.8	ug/L	10256
836 Indeno(1,2,3-c,d)Pyrene	GRAB		ND	20	ug/L	10256
837 Isophorone	GRAB		ND	9.8	ug/L	10256
838 Naphthalene	GRAB		ND	9.8	ug/L	10256
839 Nitrobenzene	GRAB		ND	20	ug/L	10256
840 n-Nitrosodimethylamine	GRAB		ND	20	ug/L	10256
841 n-Nitrosodi-n-Propylamine	GRAB		ND	9.8	ug/L	10256
842 Phenanthrene	GRAB		ND	9.8	ug/L	10256
843 Pyrene	GRAB		ND	9.8	ug/L	10256
845 2-Chlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
846 1,2,4-Trichlorobenzene	GRAB		ND	9.8	ug/L	10256
847 2,4-Dichlorophenol (Organic-BNA)	GRAB		ND	9.8	ug/L	10256
848 2,4-Dimethylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
849 2,4-Dinitrophenol	GRAB		ND	39	ug/L	10256
850 2-methyl-4,6-dinitrophenol	GRAB		ND	20	ug/L	10256
851 2-Nitrophenol	GRAB		ND	9.8	ug/L	10256
852 4-Nitrophenol	GRAB		ND	20	ug/L	10256
853 4-chloro-3-Methylphenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
854 Pentachlorophenol (Organic-BNA)	GRAB		ND	20	ug/L	10256
855 Phenol	GRAB		ND	9.8	ug/L	10256
856 2,4,6-Trichlorophenol	GRAB		ND	20	ug/L	10256
857 n-Nitrosodiphenylamine	GRAB		ND	9.8	ug/L	10256

INDUSTRIAL WASTEWATER SELF MONITORING REPORT

Report due no later than : 10/17/2016

Permit Number: 20039

Facility ID: 2113183

Company Name: **Omega Chemical Site PRP Group LLC**

Sample Location: **20039A** Reporting Period From: **07/01/2016** To: **09/30/2016**

(1) Report the test results from the most recent sample collected within the reporting period and include all laboratory test sheets with the selfmonitoring report form.

(2) Test results are valid only if the correct sampling method is observed and the laboratory analysis is performed by a State or Sanitation Districts approved laboratory.

(3) Daily and/or At Any Time permit limits are included on this form for convenience. For a full list of all applicable permit limits, including monthly and 4-day averages. refer to your Permit Data Sheet.

(4) Enter "ND" (Non Detect) for any result less than (<) the reporting limit.

(5) If the test result is "ND", enter the reporting limit; otherwise leave blank. The reporting limit can be found in your laboratory test sheet.

(6) Default units are listed. Cross out and write in applicable units if laboratory did not report results with these same units.

(7) Indicate the appropriate laboratory certification I.D. code for each testing parameter.

CERTIFICATION BY PERMITTEE

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature of responsible company official: Edward Modiano Date: 10/13/16

Print name of official: Edward Modiano Title: OPOG Project Coordinator

LACSD USE ONLY

Monitoring ID: 483490

Lab Report? ☐ Yes ☐ No Signature? ☐ Yes ☐ No Date Received: _____ Initials: _____

Please submit this report to: Sanitation Districts of Los Angeles County - Industrial Waste Section P.O. Box 4998 Whittier, CA 90607-4998

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: 440-156057-1
Client Project/Site: Omega Chemical Wastewater

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/29/2016 3:05:56 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-156057-1	Composite Sample	Water	08/18/16 15:38	08/18/16 19:00
440-156057-2	Grab Sample	Water	08/18/16 15:40	08/18/16 19:00

Job ID: 440-156057-1

Laboratory: TestAmerica Irvine

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Narrative

Job Narrative
440-156057-1

Comments
No additional comments.

Receipt
The samples were received on 8/18/2016 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS VOA

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350500 and analytical batch 440-350992. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350985 and analytical batch 440-351586. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Composite Sample

Lab Sample ID: 440-156057-1

Date Collected: 08/18/16 15:38
Date Received: 08/18/16 19:00

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	40		10	mg/L			08/24/16 13:42	1
Total Suspended Solids	1.6		1.0	mg/L			08/22/16 13:50	1

Client Sample ID: Grab Sample

Lab Sample ID: 440-156057-2

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			08/24/16 05:53	1
Acrolein	ND		5.0	ug/L			08/24/16 04:22	1
Acrylonitrile	ND		2.0	ug/L			08/24/16 04:22	1
Benzene	ND		0.50	ug/L			08/24/16 05:53	1
Bromobenzene	ND		1.0	ug/L			08/24/16 05:53	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/24/16 04:22	1
Bromochloromethane	ND		1.0	ug/L			08/24/16 05:53	1
Bromodichloromethane	ND		1.0	ug/L			08/24/16 05:53	1
Bromoform	ND		1.0	ug/L			08/24/16 05:53	1
Total Volatile Organic Compounds	ND		150	ug/L			08/24/16 04:22	1
Bromomethane	ND		1.0	ug/L			08/24/16 05:53	1
Carbon tetrachloride	ND		0.50	ug/L			08/24/16 05:53	1
Chlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
Chloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Chloroform	ND		1.0	ug/L			08/24/16 05:53	1
Chloromethane	ND		1.0	ug/L			08/24/16 05:53	1
2-Chlorotoluene	ND		1.0	ug/L			08/24/16 05:53	1
4-Chlorotoluene	ND		1.0	ug/L			08/24/16 05:53	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			08/24/16 05:53	1
Dibromochloromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/24/16 05:53	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/24/16 05:53	1
Dibromomethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
Dichlorodifluoromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,3-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
2,2-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloropropene	ND		1.0	ug/L			08/24/16 05:53	1
Ethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Hexachlorobutadiene	ND		1.0	ug/L			08/24/16 05:53	1
Isopropylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Methylene Chloride	ND		5.0	ug/L			08/24/16 05:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			08/24/16 05:53	1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			08/24/16 05:53	1
Naphthalene	ND		1.0	ug/L			08/24/16 05:53	1
n-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
N-Propylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
o-Xylene	ND		1.0	ug/L			08/24/16 05:53	1
p-Isopropyltoluene	ND		1.0	ug/L			08/24/16 05:53	1
sec-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Styrene	ND		1.0	ug/L			08/24/16 05:53	1
tert-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Tetrachloroethene	ND		1.0	ug/L			08/24/16 05:53	1
Toluene	ND		1.0	ug/L			08/24/16 05:53	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/24/16 05:53	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Trichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
Trichlorofluoromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/24/16 05:53	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Vinyl chloride	ND		0.50	ug/L			08/24/16 05:53	1
Isopropyl alcohol	ND		250	ug/L			08/24/16 05:53	1
Total Volatile Organic Compounds	**160**		150	ug/L			08/24/16 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/24/16 04:22*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*08/24/16 04:22*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/24/16 05:53*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*08/24/16 04:22*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*08/24/16 05:53*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*08/24/16 05:53*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**36**		2.5	ug/L		08/19/16 11:45	08/22/16 14:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*61*		*36 - 90*	*08/19/16 11:45*	*08/22/16 14:45*	*5*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,2-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,4-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4,5-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4,6-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dichlorophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dimethylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dinitrophenol	ND		39	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dinitrotoluene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,6-Dinitrotoluene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Chloronaphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Chlorophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Methylnaphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Methylphenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Nitrophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
3,3'-Dichlorobenzidine	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
3-Methylphenol + 4-Methylphenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
3-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Bromophenyl phenyl ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chloro-3-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chloroaniline	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chlorophenyl phenyl ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Nitrophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Acenaphthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Acenaphthylene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Aniline	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Anthracene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzidine	ND		39	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[a]anthracene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[a]pyrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[b]fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[g,h,i]perylene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[k]fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzoic acid	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzyl alcohol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
bis (2-chloroisopropyl) ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-chloroethoxy)methane	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-chloroethyl)ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Butyl benzyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Chrysene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dibenz(a,h)anthracene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dibenzofuran	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Diethyl phthalate	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dimethyl phthalate	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Di-n-butyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Di-n-octyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Fluorene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorobutadiene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorocyclopentadiene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachloroethane	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Isophorone	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Naphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Nitrobenzene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodimethylamine	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodi-n-propylamine	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodiphenylamine	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Pentachlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Phenanthrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Phenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Pyrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
2-Fluorobiphenyl	*75*		*50 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
2-Fluorophenol (Surr)	*68*		*30 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Nitrobenzene-d5 (Surr)	*73*		*45 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Phenol-d6 (Surr)	*71*		*35 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Terphenyl-d14 (Surr)	*80*		*10 - 150*	*08/22/16 11:04*	*08/24/16 18:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.6	HF	0.1	SU			08/19/16 12:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050	mg/L		08/23/16 20:05	08/23/16 22:21	1

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
5220D-2011	Chemical Oxygen Demand	SM	TAL SAV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV

Protocol References:

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

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Composite Sample

Lab Sample ID: 440-156057-1

Date Collected: 08/18/16 15:38
Matrix: Water
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5220D-2011		1	2 mL	2 mL	447123	08/24/16 13:42	JER	TAL SAV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	351035	08/22/16 13:50	MMH	TAL IRV

Client Sample ID: Grab Sample

Lab Sample ID: 440-156057-2

Date Collected: 08/18/16 15:40
Matrix: Water
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351362	08/24/16 04:22	WK	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 05:53	AA	TAL IRV
Total/NA	Prep	3520C			1025 mL	2 mL	350985	08/22/16 11:04	BMN	TAL IRV
Total/NA	Analysis	8270C		1			351586	08/24/16 18:57	DF	TAL IRV
Total/NA	Prep	3520C			1020 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		5			350992	08/22/16 14:45	AI	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			350476	08/19/16 12:41	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			40 mL	40 mL	351422	08/23/16 20:05	EN	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	351424	08/23/16 22:21	EN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-351362/4
Matrix: Water
Analysis Batch: 351362

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			08/23/16 19:37	1
Acrylonitrile	ND		2.0	ug/L			08/23/16 19:37	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/23/16 19:37	1
Total Volatile Organic Compounds	ND		150	ug/L			08/23/16 19:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/23/16 19:37*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*08/23/16 19:37*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/23/16 19:37*	*1*

Lab Sample ID: LCS 440-351362/5
Matrix: Water
Analysis Batch: 351362

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	25.0	18.2		ug/L		73	10 - 145
Acrylonitrile	250	221		ug/L		89	48 - 140
2-Chloroethyl vinyl ether	25.0	27.1		ug/L		108	37 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Lab Sample ID: 440-155926-A-4 MS
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	ND		50.0	41.2		ug/L		82	10 - 147
Acrylonitrile	ND		500	454		ug/L		91	38 - 144
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-155926-A-4 MSD
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND		50.0	38.7		ug/L		77	10 - 147	6	40
Acrylonitrile	ND		500	429		ug/L		86	38 - 144	6	40
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 140	NC	35

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

Lab Sample ID: 440-155926-A-4 MSD
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			08/23/16 19:38	1
Benzene	ND		0.50	ug/L			08/23/16 19:38	1
Bromobenzene	ND		1.0	ug/L			08/23/16 19:38	1
Bromochloromethane	ND		1.0	ug/L			08/23/16 19:38	1
Bromodichloromethane	ND		1.0	ug/L			08/23/16 19:38	1
Bromoform	ND		1.0	ug/L			08/23/16 19:38	1
Bromomethane	ND		1.0	ug/L			08/23/16 19:38	1
Carbon tetrachloride	ND		0.50	ug/L			08/23/16 19:38	1
Chlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
Chloroethane	ND		1.0	ug/L			08/23/16 19:38	1
Chloroform	ND		1.0	ug/L			08/23/16 19:38	1
Chloromethane	ND		1.0	ug/L			08/23/16 19:38	1
2-Chlorotoluene	ND		1.0	ug/L			08/23/16 19:38	1
4-Chlorotoluene	ND		1.0	ug/L			08/23/16 19:38	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			08/23/16 19:38	1
Dibromochloromethane	ND		1.0	ug/L			08/23/16 19:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/23/16 19:38	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/23/16 19:38	1
Dibromomethane	ND		1.0	ug/L			08/23/16 19:38	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
Dichlorodifluoromethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1-Dichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,2-Dichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1-Dichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
1,2-Dichloropropane	ND		1.0	ug/L			08/23/16 19:38	1
1,3-Dichloropropane	ND		1.0	ug/L			08/23/16 19:38	1
2,2-Dichloropropane	ND		1.0	ug/L			08/23/16 19:38	1
1,1-Dichloropropene	ND		1.0	ug/L			08/23/16 19:38	1
Ethylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Hexachlorobutadiene	ND		1.0	ug/L			08/23/16 19:38	1
Isopropylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Methylene Chloride	ND		5.0	ug/L			08/23/16 19:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			08/23/16 19:38	1
m,p-Xylene	ND		1.0	ug/L			08/23/16 19:38	1
Naphthalene	ND		1.0	ug/L			08/23/16 19:38	1
n-Butylbenzene	ND		1.0	ug/L			08/23/16 19:38	1

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

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
o-Xylene	ND		1.0	ug/L			08/23/16 19:38	1
p-Isopropyltoluene	ND		1.0	ug/L			08/23/16 19:38	1
sec-Butylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Styrene	ND		1.0	ug/L			08/23/16 19:38	1
tert-Butylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/23/16 19:38	1
Tetrachloroethene	ND		1.0	ug/L			08/23/16 19:38	1
Toluene	ND		1.0	ug/L			08/23/16 19:38	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/23/16 19:38	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
Trichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
Trichlorofluoromethane	ND		1.0	ug/L			08/23/16 19:38	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/23/16 19:38	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Vinyl chloride	ND		0.50	ug/L			08/23/16 19:38	1
Isopropyl alcohol	ND		250	ug/L			08/23/16 19:38	1
Total Volatile Organic Compounds	ND		150	ug/L			08/23/16 19:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/16 19:38*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/23/16 19:38*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 19:38*	*1*

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.9		ug/L		91	10 - 150
Benzene	25.0	25.1		ug/L		100	68 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Bromochloromethane	25.0	26.7		ug/L		107	70 - 130
Bromodichloromethane	25.0	25.9		ug/L		104	70 - 132
Bromoform	25.0	24.0		ug/L		96	60 - 148
Bromomethane	25.0	23.8		ug/L		95	64 - 139
Carbon tetrachloride	25.0	23.0		ug/L		92	60 - 150
Chlorobenzene	25.0	24.9		ug/L		99	70 - 130
Chloroethane	25.0	24.1		ug/L		96	64 - 135
Chloroform	25.0	24.9		ug/L		100	70 - 130
Chloromethane	25.0	21.5		ug/L		86	47 - 140

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.5		ug/L		102	70 - 133
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 133
Dibromochloromethane	25.0	25.3		ug/L		101	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.0		ug/L		92	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.4		ug/L		102	70 - 130
Dibromomethane	25.0	25.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	17.1		ug/L		69	29 - 150
1,1-Dichloroethane	25.0	24.3		ug/L		97	64 - 130
1,2-Dichloroethane	25.0	25.3		ug/L		101	57 - 138
1,1-Dichloroethene	25.0	23.2		ug/L		93	70 - 130
1,2-Dichloropropane	25.0	26.6		ug/L		106	67 - 130
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	68 - 141
1,1-Dichloropropene	25.0	23.5		ug/L		94	70 - 130
Ethylbenzene	25.0	24.1		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	25.0	25.5		ug/L		102	70 - 136
Methylene Chloride	25.0	26.5		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.0		ug/L		100	63 - 131
m,p-Xylene	25.0	25.4		ug/L		102	70 - 130
Naphthalene	25.0	28.1		ug/L		112	60 - 140
n-Butylbenzene	25.0	25.8		ug/L		103	65 - 150
N-Propylbenzene	25.0	26.0		ug/L		104	67 - 139
o-Xylene	25.0	25.3		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 132
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138
Styrene	25.0	25.6		ug/L		103	70 - 134
tert-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	70 - 130
Toluene	25.0	24.6		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 132
1,2,3-Trichlorobenzene	25.0	28.6		ug/L		114	60 - 140
1,2,4-Trichlorobenzene	25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	70 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	21.2		ug/L		85	60 - 150
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		89	60 - 140

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		105	70 - 135
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 136
Vinyl chloride	25.0	22.6		ug/L		90	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: LCS 440-351386/6
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	310		ug/L		124	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-156068-A-6 MS
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	29.1		ug/L		116	10 - 150
Benzene	ND		25.0	25.1		ug/L		100	66 - 130
Bromobenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	ND		25.0	25.9		ug/L		103	70 - 130
Bromodichloromethane	ND		25.0	25.3		ug/L		101	70 - 138
Bromoform	ND		25.0	23.3		ug/L		93	59 - 150
Bromomethane	ND		25.0	23.4		ug/L		94	62 - 131
Carbon tetrachloride	ND		25.0	23.1		ug/L		92	60 - 150
Chlorobenzene	ND		25.0	24.1		ug/L		96	70 - 130
Chloroethane	ND		25.0	23.8		ug/L		95	68 - 130
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130
Chloromethane	ND		25.0	21.9		ug/L		88	39 - 144
2-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 133
Dibromochloromethane	ND		25.0	24.6		ug/L		99	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.7		ug/L		91	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	24.4		ug/L		98	70 - 131
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130

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

Lab Sample ID: 440-156068-A-6 MS
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	ND		25.0	25.3		ug/L		101	70 - 130
Dichlorodifluoromethane	ND		25.0	17.0		ug/L		68	25 - 142
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146
1,1-Dichloroethene	ND		25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropane	ND		25.0	26.5		ug/L		106	69 - 130
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130
2,2-Dichloropropane	ND		25.0	23.4		ug/L		94	69 - 138
1,1-Dichloropropene	ND		25.0	24.0		ug/L		96	64 - 130
Ethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130
Hexachlorobutadiene	ND		25.0	25.6		ug/L		102	10 - 150
Isopropylbenzene	ND		25.0	24.9		ug/L		99	70 - 132
Methylene Chloride	ND		25.0	26.2		ug/L		105	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.6		ug/L		98	70 - 130
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140
n-Butylbenzene	ND		25.0	26.5		ug/L		106	61 - 149
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133
p-Isopropyltoluene	ND		25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	ND		25.0	25.4		ug/L		102	67 - 134
Styrene	ND		25.0	25.4		ug/L		102	29 - 150
tert-Butylbenzene	ND		25.0	25.6		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	23.1		ug/L		92	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	23.4		ug/L		94	63 - 130
Tetrachloroethene	22		25.0	42.6		ug/L		82	70 - 137
Toluene	ND		25.0	24.1		ug/L		97	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	ND		25.0	22.5		ug/L		90	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.2		ug/L		97	70 - 130
Trichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	ND		25.0	21.1		ug/L		84	60 - 150
1,2,3-Trichloropropane	ND		25.0	22.9		ug/L		92	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137
Isopropyl alcohol	ND		250	267		ug/L		107	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

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

Lab Sample ID: 440-156068-A-6 MSD
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	27.5		ug/L		110	10 - 150	6	35
Benzene	ND		25.0	25.1		ug/L		101	66 - 130	0	20
Bromobenzene	ND		25.0	25.6		ug/L		103	70 - 130	2	20
Bromochloromethane	ND		25.0	25.4		ug/L		101	70 - 130	2	25
Bromodichloromethane	ND		25.0	26.3		ug/L		105	70 - 138	4	20
Bromoform	ND		25.0	23.0		ug/L		92	59 - 150	2	25
Bromomethane	ND		25.0	23.6		ug/L		94	62 - 131	1	25
Carbon tetrachloride	ND		25.0	23.3		ug/L		93	60 - 150	1	25
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloroethane	ND		25.0	23.9		ug/L		96	68 - 130	1	25
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130	0	20
Chloromethane	ND		25.0	22.1		ug/L		88	39 - 144	1	25
2-Chlorotoluene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	70 - 133	2	20
Dibromochloromethane	ND		25.0	24.4		ug/L		97	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	22.1		ug/L		88	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	24.0		ug/L		96	70 - 131	2	25
Dibromomethane	ND		25.0	25.1		ug/L		100	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	18.2		ug/L		73	25 - 142	7	30
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130	0	20
1,2-Dichloroethane	ND		25.0	25.1		ug/L		100	56 - 146	3	20
1,1-Dichloroethene	ND		25.0	26.9		ug/L		108	70 - 130	0	20
1,2-Dichloropropane	ND		25.0	26.3		ug/L		105	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130	0	25
2,2-Dichloropropane	ND		25.0	23.8		ug/L		95	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	24.2		ug/L		97	64 - 130	1	20
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	2	20
Isopropylbenzene	ND		25.0	25.0		ug/L		100	70 - 132	1	20
Methylene Chloride	ND		25.0	26.4		ug/L		105	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.5		ug/L		98	70 - 130	0	25
m,p-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	1	25
Naphthalene	ND		25.0	27.3		ug/L		109	60 - 140	1	30
n-Butylbenzene	ND		25.0	26.1		ug/L		105	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.0		ug/L		104	66 - 135	0	20
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	67 - 134	1	20
Styrene	ND		25.0	25.7		ug/L		103	29 - 150	1	35
tert-Butylbenzene	ND		25.0	25.4		ug/L		101	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	23.9		ug/L		95	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.9		ug/L		92	63 - 130	2	30
Tetrachloroethene	22		25.0	42.5		ug/L		82	70 - 137	0	20

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

Lab Sample ID: 440-156068-A-6 MSD
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	ND		25.0	24.4		ug/L		98	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.6		ug/L		111	60 - 140	2	20
1,2,4-Trichlorobenzene	ND		25.0	28.6		ug/L		114	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	22.6		ug/L		90	70 - 130	0	20
1,1,2-Trichloroethane	ND		25.0	24.4		ug/L		97	70 - 130	1	25
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	20.9		ug/L		84	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	21.5		ug/L		86	60 - 130	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137	0	30
Isopropyl alcohol	ND		250	310		ug/L		124	46 - 142	15	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-350985/1-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350985

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
1,2-Dichlorobenzene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
1,3-Dichlorobenzene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
1,4-Dichlorobenzene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4,5-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4,6-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dichlorophenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dimethylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dinitrophenol	ND		40	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dinitrotoluene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2,6-Dinitrotoluene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Chloronaphthalene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Chlorophenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Methylnaphthalene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Methylphenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Nitrophenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-350985/1-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350985

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
3-Methylphenol + 4-Methylphenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
3-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Bromophenyl phenyl ether	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chloro-3-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chloroaniline	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chlorophenyl phenyl ether	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Nitrophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Acenaphthene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Acenaphthylene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Aniline	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Anthracene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzidine	ND		40	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[a]anthracene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[a]pyrene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[b]fluoranthene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[g,h,i]perylene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[k]fluoranthene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzoic acid	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzyl alcohol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
bis (2-chloroisopropyl) ether	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-chloroethoxy)methane	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-chloroethyl)ether	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Butyl benzyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Chrysene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Dibenz(a,h)anthracene	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Dibenzofuran	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Diethyl phthalate	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Dimethyl phthalate	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Di-n-butyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Di-n-octyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Fluoranthene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Fluorene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorobenzene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorobutadiene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorocyclopentadiene	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachloroethane	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
Isophorone	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Naphthalene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Nitrobenzene	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodimethylamine	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodi-n-propylamine	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodiphenylamine	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Pentachlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 15:33	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-350985/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351586 — **Prep Batch: 350985**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Phenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Pyrene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*71*		*40 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
2-Fluorobiphenyl	*72*		*50 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
2-Fluorophenol (Surr)	*70*		*30 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Nitrobenzene-d5 (Surr)	*71*		*45 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Phenol-d6 (Surr)	*70*		*35 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Terphenyl-d14 (Surr)	*76*		*10 - 150*	*08/22/16 11:04*	*08/24/16 15:33*	*1*

Lab Sample ID: LCS 440-350985/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351586 — **Prep Batch: 350985**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	50.1		ug/L		50	25 - 84
1,2-Dichlorobenzene	100	47.3		ug/L		47	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	68.0		ug/L		67	44 - 113
1,3-Dichlorobenzene	100	45.6		ug/L		46	20 - 80
1,4-Dichlorobenzene	100	46.1		ug/L		46	22 - 81
2,4,5-Trichlorophenol	100	67.4		ug/L		67	24 - 121
2,4,6-Trichlorophenol	100	66.7		ug/L		67	20 - 121
2,4-Dichlorophenol	100	61.0		ug/L		61	23 - 113
2,4-Dimethylphenol	100	60.5		ug/L		60	39 - 94
2,4-Dinitrophenol	200	140		ug/L		70	23 - 134
2,4-Dinitrotoluene	100	68.8		ug/L		69	54 - 115
2,6-Dinitrotoluene	100	70.4		ug/L		70	50 - 115
2-Chloronaphthalene	100	59.6		ug/L		60	34 - 102
2-Chlorophenol	100	54.4		ug/L		54	20 - 106
2-Methylnaphthalene	100	55.0		ug/L		55	34 - 98
2-Methylphenol	100	58.7		ug/L		59	36 - 103
2-Nitroaniline	100	70.2		ug/L		70	48 - 111
2-Nitrophenol	100	56.5		ug/L		57	20 - 117
3,3'-Dichlorobenzidine	100	56.2		ug/L		56	22 - 97
3-Methylphenol + 4-Methylphenol	100	60.9		ug/L		61	35 - 106
3-Nitroaniline	100	71.4		ug/L		71	51 - 116
4,6-Dinitro-2-methylphenol	200	139		ug/L		70	28 - 139
4-Bromophenyl phenyl ether	100	68.2		ug/L		68	42 - 113
4-Chloro-3-methylphenol	100	61.2		ug/L		61	44 - 110
4-Chloroaniline	100	66.1		ug/L		66	42 - 109
4-Chlorophenyl phenyl ether	100	67.4		ug/L		67	38 - 115
4-Nitroaniline	100	69.6		ug/L		70	50 - 116
4-Nitrophenol	200	133		ug/L		67	26 - 132
Acenaphthene	100	65.3		ug/L		65	37 - 107
Acenaphthylene	100	63.2		ug/L		63	39 - 107

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-350985/2-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	100	64.0		ug/L		64	27 - 115
Anthracene	100	68.8		ug/L		69	42 - 120
Benzidine	100	67.9		ug/L		68	5 - 150
Benzo[a]anthracene	100	69.3		ug/L		69	42 - 115
Benzo[a]pyrene	100	73.0		ug/L		73	41 - 117
Benzo[b]fluoranthene	100	72.4		ug/L		72	36 - 113
Benzo[g,h,i]perylene	100	73.6		ug/L		74	37 - 115
Benzo[k]fluoranthene	100	74.2		ug/L		74	42 - 122
Benzoic acid	100	60.2		ug/L		60	15 - 121
Benzyl alcohol	100	62.0		ug/L		62	39 - 106
bis (2-chloroisopropyl) ether	100	55.2		ug/L		55	38 - 104
Bis(2-chloroethoxy)methane	100	60.2		ug/L		60	47 - 104
Bis(2-chloroethyl)ether	100	56.1		ug/L		56	42 - 99
Bis(2-ethylhexyl) phthalate	100	71.5		ug/L		71	43 - 124
Butyl benzyl phthalate	100	69.9		ug/L		70	44 - 122
Chrysene	100	69.1		ug/L		69	42 - 118
Dibenz(a,h)anthracene	100	72.3		ug/L		72	40 - 114
Dibenzofuran	100	62.8		ug/L		63	37 - 113
Diethyl phthalate	100	70.9		ug/L		71	51 - 120
Dimethyl phthalate	100	68.3		ug/L		68	49 - 113
Di-n-butyl phthalate	100	71.8		ug/L		72	47 - 125
Di-n-octyl phthalate	100	70.3		ug/L		70	42 - 125
Fluoranthene	100	65.4		ug/L		65	44 - 119
Fluorene	100	64.4		ug/L		64	39 - 116
Hexachlorobenzene	100	69.1		ug/L		69	43 - 112
Hexachlorobutadiene	100	43.1		ug/L		43	14 - 77
Hexachlorocyclopentadiene	100	37.5		ug/L		37	10 - 77
Hexachloroethane	100	41.4		ug/L		41	13 - 75
Indeno[1,2,3-cd]pyrene	100	69.0		ug/L		69	35 - 116
Isophorone	100	64.6		ug/L		65	48 - 107
Naphthalene	100	56.0		ug/L		56	33 - 95
Nitrobenzene	100	56.9		ug/L		57	42 - 99
N-Nitrosodimethylamine	100	51.4		ug/L		51	35 - 96
N-Nitrosodi-n-propylamine	100	62.2		ug/L		62	44 - 111
N-Nitrosodiphenylamine	100	66.8		ug/L		67	46 - 116
Pentachlorophenol	200	141		ug/L		70	26 - 136
Phenanthrene	100	67.6		ug/L		68	43 - 120
Phenol	100	55.5		ug/L		55	25 - 99
Pyrene	100	69.2		ug/L		69	43 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*70*		*40 - 120*
2-Fluorobiphenyl	*62*		*50 - 120*
2-Fluorophenol (Surr)	*49*		*30 - 120*
Nitrobenzene-d5 (Surr)	*56*		*45 - 120*
Phenol-d6 (Surr)	*55*		*35 - 120*
Terphenyl-d14 (Surr)	*68*		*10 - 150*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-350985/3-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	43.1		ug/L		43	25 - 84	15	35
1,2-Dichlorobenzene	100	40.4		ug/L		40	24 - 85	16	35
1,2-Diphenylhydrazine(as Azobenzene)	101	64.6		ug/L		64	44 - 113	5	35
1,3-Dichlorobenzene	100	38.8		ug/L		39	20 - 80	16	35
1,4-Dichlorobenzene	100	39.3		ug/L		39	22 - 81	16	35
2,4,5-Trichlorophenol	100	69.8		ug/L		70	24 - 121	3	35
2,4,6-Trichlorophenol	100	66.6		ug/L		67	20 - 121	0	35
2,4-Dichlorophenol	100	59.8		ug/L		60	23 - 113	2	35
2,4-Dimethylphenol	100	60.7		ug/L		61	39 - 94	0	35
2,4-Dinitrophenol	200	140		ug/L		70	23 - 134	0	35
2,4-Dinitrotoluene	100	66.4		ug/L		66	54 - 115	4	35
2,6-Dinitrotoluene	100	69.3		ug/L		69	50 - 115	2	35
2-Chloronaphthalene	100	57.9		ug/L		58	34 - 102	3	35
2-Chlorophenol	100	51.1		ug/L		51	20 - 106	6	35
2-Methylnaphthalene	100	49.9		ug/L		50	34 - 98	10	35
2-Methylphenol	100	57.7		ug/L		58	36 - 103	2	35
2-Nitroaniline	100	73.3		ug/L		73	48 - 111	4	35
2-Nitrophenol	100	54.5		ug/L		54	20 - 117	4	35
3,3'-Dichlorobenzidine	100	54.0		ug/L		54	22 - 97	4	35
3-Methylphenol + 4-Methylphenol	100	61.6		ug/L		62	35 - 106	1	35
3-Nitroaniline	100	71.9		ug/L		72	51 - 116	1	35
4,6-Dinitro-2-methylphenol	200	141		ug/L		70	28 - 139	1	35
4-Bromophenyl phenyl ether	100	69.2		ug/L		69	42 - 113	2	35
4-Chloro-3-methylphenol	100	63.9		ug/L		64	44 - 110	4	35
4-Chloroaniline	100	67.0		ug/L		67	42 - 109	1	35
4-Chlorophenyl phenyl ether	100	63.7		ug/L		64	38 - 115	6	35
4-Nitroaniline	100	68.1		ug/L		68	50 - 116	2	35
4-Nitrophenol	200	136		ug/L		68	26 - 132	2	35
Acenaphthene	100	62.9		ug/L		63	37 - 107	4	35
Acenaphthylene	100	60.6		ug/L		61	39 - 107	4	35
Aniline	100	63.1		ug/L		63	27 - 115	2	35
Anthracene	100	65.4		ug/L		65	42 - 120	5	35
Benzidine	100	65.2		ug/L		65	5 - 150	4	35
Benzo[a]anthracene	100	67.9		ug/L		68	42 - 115	2	35
Benzo[a]pyrene	100	70.7		ug/L		71	41 - 117	3	35
Benzo[b]fluoranthene	100	70.7		ug/L		71	36 - 113	2	35
Benzo[g,h,i]perylene	100	71.9		ug/L		72	37 - 115	2	35
Benzo[k]fluoranthene	100	71.7		ug/L		72	42 - 122	3	35
Benzoic acid	100	66.2		ug/L		66	15 - 121	9	35
Benzyl alcohol	100	64.0		ug/L		64	39 - 106	3	35
bis (2-chloroisopropyl) ether	100	48.3		ug/L		48	38 - 104	13	35
Bis(2-chloroethoxy)methane	100	57.8		ug/L		58	47 - 104	4	35
Bis(2-chloroethyl)ether	100	49.6		ug/L		50	42 - 99	12	35
Bis(2-ethylhexyl) phthalate	100	69.0		ug/L		69	43 - 124	3	35
Butyl benzyl phthalate	100	68.3		ug/L		68	44 - 122	2	35
Chrysene	100	67.8		ug/L		68	42 - 118	2	35
Dibenz(a,h)anthracene	100	70.9		ug/L		71	40 - 114	2	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-350985/3-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenzofuran	100	60.1		ug/L		60	37 - 113	4	35
Diethyl phthalate	100	67.8		ug/L		68	51 - 120	5	35
Dimethyl phthalate	100	68.1		ug/L		68	49 - 113	0	35
Di-n-butyl phthalate	100	67.8		ug/L		68	47 - 125	6	35
Di-n-octyl phthalate	100	68.5		ug/L		68	42 - 125	3	35
Fluoranthene	100	61.8		ug/L		62	44 - 119	6	35
Fluorene	100	59.7		ug/L		60	39 - 116	8	35
Hexachlorobenzene	100	67.8		ug/L		68	43 - 112	2	35
Hexachlorobutadiene	100	35.5		ug/L		36	14 - 77	19	35
Hexachlorocyclopentadiene	100	34.3		ug/L		34	10 - 77	9	35
Hexachloroethane	100	34.6		ug/L		35	13 - 75	18	35
Indeno[1,2,3-cd]pyrene	100	67.5		ug/L		68	35 - 116	2	35
Isophorone	100	64.5		ug/L		65	48 - 107	0	35
Naphthalene	100	49.9		ug/L		50	33 - 95	11	35
Nitrobenzene	100	52.7		ug/L		53	42 - 99	8	35
N-Nitrosodimethylamine	100	52.0		ug/L		52	35 - 96	1	35
N-Nitrosodi-n-propylamine	100	59.4		ug/L		59	44 - 111	5	35
N-Nitrosodiphenylamine	100	68.0		ug/L		68	46 - 116	2	35
Pentachlorophenol	200	136		ug/L		68	26 - 136	4	35
Phenanthrene	100	65.8		ug/L		66	43 - 120	3	35
Phenol	100	53.2		ug/L		53	25 - 99	4	35
Pyrene	100	67.6		ug/L		68	43 - 119	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*64*		*40 - 120*
2-Fluorobiphenyl	*54*		*50 - 120*
2-Fluorophenol (Surr)	*45*		*30 - 120*
Nitrobenzene-d5 (Surr)	*46*		*45 - 120*
Phenol-d6 (Surr)	*52*		*35 - 120*
Terphenyl-d14 (Surr)	*59*		*10 - 150*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-350500/1-A
Matrix: Water
Analysis Batch: 350992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350500

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	ug/L		08/19/16 11:45	08/22/16 13:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*55*		*36 - 90*	*08/19/16 11:45*	*08/22/16 13:37*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCS 440-350500/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	1.12		ug/L		56	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*

Lab Sample ID: LCSD 440-350500/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.00	1.01		ug/L		50	36 - 120	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*47*		*36 - 90*

Method: 5220D-2011 - Chemical Oxygen Demand

Lab Sample ID: MB 680-447123/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	mg/L			08/24/16 13:42	1

Lab Sample ID: LCS 680-447123/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110

Lab Sample ID: 440-155927-C-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	23	F1	50.0	64.8	F1	mg/L		83	90 - 110

Lab Sample ID: 440-155927-C-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	23	F1	50.0	62.9	F1	mg/L		79	90 - 110	3	30

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-351035/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351035

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	mg/L			08/22/16 13:50	1

Lab Sample ID: LCS 440-351035/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351035

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	1000	960		mg/L		96	85 - 115

Lab Sample ID: 440-156015-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351035

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	810		808		mg/L		0.2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-156057-2 DU — **Client Sample ID: Grab Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350476

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	8.6	HF	8.6		SU		0.1	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-351422/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 351424 — **Prep Batch: 351422**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050	mg/L		08/23/16 18:15	08/23/16 22:20	1

Lab Sample ID: LCS 440-351422/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 351424 — **Prep Batch: 351422**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	0.500	0.466		mg/L		93	80 - 120

Lab Sample ID: 440-155710-O-11-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 351424 — **Prep Batch: 351422**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide, Dissolved	ND	HF	0.500	0.496	HF	mg/L		99	70 - 130

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: 440-155710-O-11-C MSD
Matrix: Water
Analysis Batch: 351424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 351422

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.500	0.497	HF	mg/L		99	70 - 130	0	30

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QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

GC/MS VOA

Analysis Batch: 351362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8260B	
MB 440-351362/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351362/5	Lab Control Sample	Total/NA	Water	8260B	
440-155926-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-155926-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 351386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8260B	
MB 440-351386/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351386/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-351386/6	Lab Control Sample	Total/NA	Water	8260B	
440-156068-A-6 MS	Matrix Spike	Total/NA	Water	8260B	
440-156068-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

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GC/MS Semi VOA

Prep Batch: 350500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	3520C	
MB 440-350500/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Prep Batch: 350985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	3520C	
MB 440-350985/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350985/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350985/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 350992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8270C SIM	350500
MB 440-350500/1-A	Method Blank	Total/NA	Water	8270C SIM	350500
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	350500
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	350500

Analysis Batch: 351586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8270C	350985
MB 440-350985/1-A	Method Blank	Total/NA	Water	8270C	350985
LCS 440-350985/2-A	Lab Control Sample	Total/NA	Water	8270C	350985
LCSD 440-350985/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	350985

General Chemistry

Analysis Batch: 350476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 350476 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2 DU	Grab Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 351035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-1	Composite Sample	Total/NA	Water	SM 2540D	
MB 440-351035/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-351035/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-156015-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Prep Batch: 351422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Dissolved	Water	SM 4500 S2 B	
MB 440-351422/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-351422/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
440-155710-O-11-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-155710-O-11-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 351424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Dissolved	Water	SM 4500 S2 D	351422
MB 440-351422/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	351422
LCS 440-351422/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	351422
440-155710-O-11-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	351422
440-155710-O-11-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	351422

Analysis Batch: 447123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-1	Composite Sample	Total/NA	Water	5220D-2011	
MB 680-447123/3	Method Blank	Total/NA	Water	5220D-2011	
LCS 680-447123/4	Lab Control Sample	Total/NA	Water	5220D-2011	
440-155927-C-2 MS	Matrix Spike	Total/NA	Water	5220D-2011	
440-155927-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	5220D-2011	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-17
Alaska (UST)	State Program	10	UST-104	11-05-16
Arkansas DEQ	State Program	6	88-0692	01-31-17
California	State Program	9	2939	07-31-16 *
Colorado	State Program	8	N/A	12-31-16
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-17
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-17
Georgia	State Program	4	803	06-30-17
Guam	State Program	9	15-005r	04-16-17
Hawaii	State Program	9	N/A	06-30-17
Illinois	NELAP	5	200022	11-30-16
Indiana	State Program	5	N/A	06-30-17
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-16
Kentucky (UST)	State Program	4	18	06-30-17
Kentucky (WW)	State Program	4	90084	12-31-16
Louisiana	NELAP	6	30690	06-30-17
Louisiana (DW)	NELAP	6	LA160019	12-31-16
Maine	State Program	1	GA00006	09-24-16 *
Maryland	State Program	3	250	12-31-16
Massachusetts	State Program	1	M-GA006	06-30-17
Michigan	State Program	5	9925	06-30-17
Mississippi	State Program	4	N/A	06-30-16 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-17
New Jersey	NELAP	2	GA769	06-30-17
New Mexico	State Program	6	N/A	06-30-17
New York	NELAP	2	10842	03-31-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Laboratory: TestAmerica Savannah (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (DW)	State Program	4	13701	07-31-17
North Carolina (WW/SW)	State Program	4	269	12-31-16
Oklahoma	State Program	6	9984	08-31-16
Pennsylvania	NELAP	3	68-00474	06-30-17
Puerto Rico	State Program	2	GA00006	12-31-16
South Carolina	State Program	4	98001	06-30-16 *
Tennessee	State Program	4	TN02961	06-30-16 *
Texas	NELAP	6	T104704185-14-7	11-30-16
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-17
Washington	State Program	10	C805	06-10-16 *
West Virginia (DW)	State Program	3	9950C	12-31-16
West Virginia DEP	State Program	3	094	08-31-16
Wisconsin	State Program	5	999819810	08-31-16 *
Wyoming	State Program	8	8TMS-L	06-30-16 *

* Certification renewal pending - certification considered valid.

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	Sampler: Efrain Figueroa	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-93580-16301.1
Client Contact: Pamela Henriksen	Phone: (949)283-0504	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: Jacob & Hefner Associates P.C.				Job #:
Address: 15375 Barranca Parkway, J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618				
Phone: 949-274-0297(Tel)	PO #: Omega Chemical Wastewater			
Email: phenriksen@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 44003641			
Site: California	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D - COD	2540D - TSS	SM4500_S2_D - Dissolved Sulfide	8260B_LL - VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ - pH	8260B_LL - A+A+2CVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	S	N	B	A	N	N	N	X	
Composite Sample	8/17-18/16	15:30	C	Water			X	X						2	Isco Start: Aug. 17th 2016 @ 1100
Grab Sample	8/18/16	15:40	G	Water					X	X	X	X	X	12	Meter: 707997
															Isco End: Aug. 18th 2016 @ 1100
															Meter: 712760
															Field pH: 3.1
															Temp: 19.8°C
															Sampling Time: 3Hrs

440-156057 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Efrain Figueroa	8-18-16 10:00	TA I			
				8/18/16 1900	TA-I

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3/1.4 [illegible]

8/29/2016

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: 440-101475.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 440-156057-1
Address: 5102 LaRoche Avenue,	Due Date Requested: 8/24/2016			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Composite & Grab	Project #: 44003641			
Site: Omega Whittier Wastewater	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)	6220D	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Composite Sample (440-156057-1)	8/18/16	15:38 Pacific		Water			X		

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: T.A

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Vu Bauh	8/19/16 17:00	TAI	FedEx	8/19/16 17:00	
			S Wayne	8-20-16 1020	

Custody Seals Intact. Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 1.3

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-156057-1

Login Number: 156057
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-156057-1

Login Number: 156057
List Number: 2
Creator: Wayne, Shretha S

List Source: TestAmerica Savannah
List Creation: 08/20/16 02:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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?	N/A	
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.	True	
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ATTACHMENT B

Laboratory Analytical Results & Data Validation

DATA VALIDATION

FOR

SEMI-ANNUAL GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA

ORGANIC ANALYSIS DATA
1,4-Dioxane in Water

Laboratory Job Nos.
440-155928-1
440-156068-1
440-156143-1
440-158610-1 Rev 2

Analyses Performed

Test America
Irvine, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

October 4, 2016

1547-3139C/jlr
Omega\SVoa.docx

EXECUTIVE SUMMARY

Validation of the 1,4-dioxane data prepared by Test America-Irvine for 27 ground water samples from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full validation was performed on three samples (**bolded below**), which represent 10% of the total number of ground water samples received and analyzed by Test America. The data were reported by the laboratory under Laboratory Job Nos. 440-155928-1, 440-156068-1, 440-156143-1 and 440-158610-1 Rev 2. The following samples were reported:

OC-GW-DPE-3_20160817	OC-GW-DPE-4_20160817
OC-GW-DPE-5_20160817	OC-GW-DPE-8_20160817
OC-GW-OW1B_20160817	OC-GW-OW12_20160817
OC-GW-OW12K_20160817	
OC_GW_OW10_20160819	OC_GW_PZ9_20160819
OC_GW_OW11_20160819	**OC_GW_OW11K_20160819**
OC_GW_OW9_20160819	
OC_GW_DPE9_20160818	OC_GW_OW3B_20160818
OC_G W_OW3BK_20160818	OC_GW_EW5_20160818
OC_G W_EW4_20160818	OC_GW_OW8B_20160818
OC_G W_EW3_20160818	OC_GW_EW1_20160818
OC_GW_OW4B_20160818	
OC_GW_PZ-7_20160914	OC_GW_PZ-8_20160914
OC_GW_PZ-4_20160914	OC_GW_PZ-5_20160915
OC_GW_PZ-5K_20160915	OC_GW_PZ-6_20160915

Based on the validation effort, the following data qualifiers were applied:

- The result for 1,4-dioxane in OC_GW_OW3BK_20160818 was qualified not detected (U) at the reporting limit (RL).

- The result for 1,4-dioxane in all samples except OC_GW_PZ-7_20160914, OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819 and OC_GW_OW9_20160819 were qualified as estimated (J-, UJ) and may be biased low.

- The results for 1,4-dioxane in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819,

OC_GW_OW11K_20160819 and OC_GW_OW9_20160819 were qualified as estimated (J).

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 SW846 Method 8270C 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 June 30, 2015" and with EPA's "National Functional Guidelines for Organic Data Review" (Rev. 08/14). Professional judgment was applied as necessary and appropriate. Where discrepancies were found, the specifications of the analytical method took precedence.

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.

NJ 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.

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 and receipt dates as indicated below.

SDG	***Collection Date(s)***	***Receipt Date(s)***	***Extraction Date(s)***	***Analysis Date(s)***
440-155928-1	8/17/2016	8/17/2016	8/18/2016	8/19/2016 8/22/2016
440-156068-1	8/18/2016	8/18/2016	8/19/2016	8/22/2016 8/23/2016
440-156143-1	8/19/2016	8/19/2016	8/21/2016	8/23/2016
440-158610-1	9/14/2016 9/15/2016	9/15/2016	9/19/2016	9/21/2016

The temperatures of the coolers upon receipt at the laboratories were within acceptance limits (acceptable range is 6ºC ±2 ºC). The samples were extracted and analyzed as indicated above, within the hold times specified in the method.

II. GC/MS Instrument Performance Check

Decafluorotriphenylphosphine (DFTPP) instrument performance checks are not required for SIM analysis.

III. Calibration

A. Initial Calibration (IC)

Summary results for two initial calibrations (ICs) run on instrument GCMS05 on July 16, 2016 and September 15, 2016 were reported in support of the sample analyses associated with the full validation effort. Documentation of all of the individual IC standards was present in the data package and relative response factor (RRFs) as well as percent relative standard deviation (%RSD) value were accurately reported.

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run at the appropriate frequencies. Documentation was present in the data package, and the percent differences (%Ds) were acceptable (<20%D).

IV. Blanks

A laboratory method blank was extracted and reported for each analytical batch. 1,4-Dioxane was not detected in any of the method or rinse blanks.

V. Surrogate Compound Recovery

Recoveries of 1,4-dioxane-d_8 were correctly calculated and accurately reported. Although the percent recoveries met the laboratory acceptance criteria, the laboratory-generated acceptance window was excessively low (36-90%). Because 1,4-dioxane and 1,4-dioxane-d_8 exhibited low recoveries by this method, based on professional judgment, acceptance criteria of 70 – 130% was applied. The results for 1,4-dioxane in all samples except OC_GW_OW9_20160819 (73%R) and OC_GW_PZ-7_20160914 (71%R)were qualified as estimated (J-, UJ) due to low surrogate recovery, and may be biased low.

VI. Spike Analysis

A. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Site specific MS/MSD analyses were not performed.

B. Laboratory Control Sample (LCS)

An LCS/LCSD pair were extracted with each batch of sample extractions. Because 1,4-dioxane and 1,4-dioxane-d_8 exhibit low recoveries by this method (36-120%), based on professional judgment, acceptance criteria of 70-130% was applied. The result for 1,4-dioxane in all samples were qualified as estimated (J-, UJ) due to low LCS recoveries:

- 440-155928-1 – LCS/LCSD - 62/61 %R
- 440-156143-1 – LCS/LCSD - 56/58 %R
- 440-156068-1 – LCS/LCSD - 56/50 %R

VII. Field Duplicate

The following samples were submitted as field duplicates:

- OC-GW-OW12_20160817 / OC-GW-OW12K_20160817. Precision between paired samples was acceptable.

- OC_GW_OW11_20160819 / OC_GW_OW11K_20160819. The relative percent difference (RPD) between the paired samples is 126%. The laboratory was contacted and requested to verify results. Although the laboratory suggested OC_GW_OW11_20160819 may have been cross contaminated during the concentration process, there is no way to verify this. The results for

1,4-dioxane in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819 and OC_GW_OW9_20160819 were qualified as estimated (J, UJ) due to imprecision between duplicate samples. The 'J' qualifier takes precedence over 'J-' qualifier applied due to low surrogate and/or LCS recoveries.

- OC_GW_OW3B_20160818 / OC_GW_OW3BK_20160818 – The result for 1,4-dioxane in OC_GW_OW3BK_20160818 was qualified not detected (U) at the RL because it was not detected in OC_GW_OW3B_20160818.

- OC_GW_PZ-5_20160915 / OC_GW_PZ-5K_20160915 – 1,4-Dioxane was not detected in either sample.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

The analyte-specific reporting limit is equal to the lowest standard in the calibration range and are well supported by the IC (see Section III).

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for the samples and spike samples associated with the full validation effort.

The result for 1,4-dioxane in OC_GW_OW10_20160819 was qualified as estimated (J) because the ion ratios were outside acceptance windows. The 'J' qualifier takes precedence over 'J-' qualifier applied due to low surrogate and LCS recoveries.

XI. Tentatively Identified Compounds (TIC)

Non-target compounds were not part of the analytical requirements.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the validation of these data.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The result for 1,4-dioxane in OC_GW_OW3BK_20160818 was qualified not detected (U) at RL because it was not detected in OC_GW_OW3B_20160818.

- The results for 1,4-dioxane in all samples except OC_GW_OW9_20160819 and OC_GW_PZ-7_20160914 were qualified as estimated (J-, UJ) due to low surrogate recovery.

- The result for 1,4-dioxane in all samples except OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915 and OC_GW_PZ-6_20160915 were qualified as estimated (J-, UJ) due to low LCS recoveries.

- The result for 1,4-dioxane in OC_GW_OW10_20160819 was qualified as estimated (J) because the ion ratios were outside acceptance windows.

- The results for 1,4-dioxane in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819 and OC_GW_OW9_20160819 were qualified as estimated (J, UJ) due to imprecision between duplicate samples.

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section XIII.

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
1,4-Dioxane in Water
440-155928-1
440-156068-1
440-156143-1
440-158610-1

Data Summary Form
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC-GW-DPE-3_20160817		OC-GW-DPE-4_20160817		OC-GW-DPE-5_20160817		OC-GW-DPE-8_20160817		OC-GW-OW1B_20160817	
Lab Sample ID		440-155928-1		440-155928-2		440-155928-3		440-155928-4		440-155928-5	
Dilution Factor		10		20		1		1		1	
RL											
0.5	1,4-Dioxane	24	J-	85	J-	5.5	J-	5.8	J-	2.6	J-

Field Sample ID		OC-GW-OW12_20160817		OC-GW-OW12K_20160817	
Lab Sample ID		440-155928-6		440-155928-8	
Dilution Factor		2		2	
RL					
0.5	1,4-Dioxane	12	J-	13	J-

Data Summary Form
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_DPE9_20160818		OC_GW_EW1_20160818		OC_GW_EW3_20160818		OC_GW_EW4_20160818		OC_GW_EW5_20160818	
Lab Sample ID		440-156068-1		440-156068-8		440-156068-7		440-156068-5		440-156068-4	
Dilution Factor		10		10		1		1		1	
RL											
0.5	1,4-Dioxane	40	J-	23	J-	0.47	J-	0.22	J-	0.1	J-

Field Sample ID		OC_GW_OW3B_20160818		OC_GW_OW3BK_20160818		OC_GW_OW4B_20160818		OC_GW_OW8B_20160818	
Lab Sample ID		440-156068-2		440-156068-3		440-156068-9		440-156068-6	
Dilution Factor		1		1		1		1	
RL									
0.5	1,4-Dioxane		UJ		UJ	0.14	J-	0.16	J-

Data Summary Form
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_OW10_20160819		OC_GW_OW11_20160819		OC_GW_OW11K_20160819		OC_GW_OW9_20160819		OC_GW_PZ9_20160819	
Lab Sample ID		440-156143-1		440-156143-3		440-156143-4		440-156143-5		440-156143-2	
Dilution Factor		1		1		1		100		50	
RL											
0.5	1,4-Dioxane	0.13	J	0.92	J	0.21	J	800	J	190	J

Data Summary Form
Groundwater
Omega Chemical (ug/L)

Field Sample ID		OC_GW_PZ-4_20160914		OC_GW_PZ-5_20160915		OC_GW_PZ-5K_20160915		OC_GW_PZ-6_20160915		OC_GW_PZ-7_20160914		OC_GW_PZ-8_20160914	
Lab Sample ID		440-158610-3		440-158610-5		440-158610-6		440-158610-7		440-158610-1		440-158610-2	
Dilution Factor		1		1		1		1		1		1	
RL													
0.5	1,4-Dioxane		UJ		UJ		UJ		UJ				UJ

DATA VALIDATION

FOR

SEMI-ANNUAL GROUND WATER MONITORING
OMEGA CHEMICAL SITE
WHITTIER CALIFORNIA

ORGANIC ANALYSIS DATA
Volatiles in Water

Laboratory Job Nos.
440-155928-1
440-156068-1
440-156143-1
440-158610-1 Rev 2

Analyses Performed
By:

TestAmerica
Irvine, CA

For:

de maximis, inc.
1322 Scott Street
Suite 104
San Diego, CA 92106

Data Validation By:

ddms, inc.
St. Paul, Minnesota 55108

October 5, 2016

1547-3139C/jlr
Omega\Voa.docx

EXECUTIVE SUMMARY

Validation of the volatile organics analysis data prepared by Test America-Irvine for 33 ground water samples and five trip blanks from the Omega Chemical Site has been completed by de maximis Data Management Solutions, Inc. (ddms). Full validation was performed on four samples (**bolded below**), which represent 10% of the total number of ground water samples received and analyzed by Test America. The data were reported by the laboratory under Laboratory Job Nos. 440-155928-1, 440-156068-1, 440-156143-1 and 440-158610-1 Rev 2. The following samples were reported:

OC_GW_DPE-3_20160817	OC_GW_DPE-4_20160817
OC_GW_DPE-5_20160817	OC_GW_DPE-8_20160817
OC_GW_OW1B_20160817	OC_GW_OW12_20160817
OC_GW_OW12N_20160817	OC_GW_OW12K_20160817
OC_GW_TB_20160817	
OC_GW_OW10_20160819	**OC_GW_PZ9_20160819**
OC_GW_OW11_20160819	OC_GW_OW11K_20160819
OC_GW_OW9_20160819	OC_GW_OW11N_20160819
OC_GW_TB_20160819	
OC_GW_DPE9_20160818	**OC_GW_OW3B_20160818**
OC_GW_OW3BK_20160818	OC_GW_EW5_20160818
OC_GW_EW4_20160818	OC_GW_OW8B_20160818
OC_GW_EW3_20160818	OC_GW_EW1_20160818
OC_GW_OW4B_20160818	OC_GW_OW4BN_20160818
OC_GW_TB1_20160818	OC_GW_TB2_20160818
OC_GW_PZ-7_20160914	OC_GW_PZ-8_20160914
OC_GW_PZ-4_20160914	OC_GW_PZ-4N_20160914
OC_GW_PZ-5_20160915	OC_GW_PZ-5K_20160915
OC_GW_PZ-6_20160915	OC_GW_PZ-6N_20160915
OC_GW_PZ-1_20160915	OC_GW_TB_20160914

Based on the validation effort, data qualifiers were applied:

- The following were qualified as estimated (J-, UJ):

  - Results for isopropyl alcohol (IPA), chloroethane and chloromethane in:
    - OC_GW_DPE-8_20160817
    - OC_GW_OW1B_20160817
    - OC_GW_OW12N_20160817
    - OC_GW_TB_20160817

  - Results for dichlorodifluoromethane (Freon 12), acetone, chloromethane, 1,2-dibromo-3-chloropropane and 1,1,2,2,-tetrachloroethane in:
    - OC-GW-DPE-3_20160817
    - OC-GW-DPE-4_20160817
    - OC-GW-DPE-5_20160817
    - OC-GW-DPE-8_20160817
    - OC-GW-OW1B_20160817
    - OC-GW-OW12_20160817
    - OC-GW-OW12N_20160817
    - OC-GW-OW12K_20160817
    - OC-GW-TB_20160817

  - Results for chloromethane, chloroethane, Freon 113 and isopropyl alcohol (IPA) in:
    - OC_GW_OW10_20160819
    - OC_GW_PZ9_20160819
    - OC_GW_OW11_20160819
    - OC_GW_OW11K_20160819
    - OC_GW_OW9_20160819
    - OC_GW_OW11N_20160819
    - OC_GW_TB_20160819

  - Results for chloroethane, dichlorodifluoromethane, acetone, 1,2-dibromo-3-chloropropane and bromoform in:

    - OC_GW_PZ-7_20160914
    - OC_GW_PZ-8_20160914
    - OC_GW_PZ-4_20160914
    - OC_GW_PZ-4N_20160914
    - OC_GW_PZ-5_20160915
    - OC_GW_PZ-5K_20160915
    - OC_GW_PZ-6_20160915
    - OC_GW_PZ-6N_20160915
    - OC_GW_PZ-1_20160915
    - OC_GW_TB_20160914

- The results for acetone and tetrachloroethene were qualified as estimated (J, UJ) in :
    - OC_GW_PZ-7_20160914
    - OC_GW_PZ-8_20160914
    - OC_GW_PZ-4_20160914
    - OC_GW_PZ-4N_20160914
    - OC_GW_PZ-5_20160915
    - OC_GW_PZ-5K_20160915
    - OC_GW_PZ-6_20160915
    - OC_GW_PZ-6N_20160915
    - OC_GW_PZ-1_20160915

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 <u>part of the data package</u> for all future distributions of the volatile data.

INTRODUCTION

Analyses were performed in accordance with USEPA SW846 Method 8260B. 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 June 30, 2015", EPA's "National Functional Guidelines for Organic Data Review" (Rev. 08/14) 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 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.

NJ 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.

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 and receipt dates as indicated below.

SDG	***Collection Date(s)***	***Receipt Date(s)***	***Analysis Date(s)***
440-155928-1	8/17/2016	8/17/2016	8/20/2016 8/22/2016
440-156068-1	8/18/2016	8/18/2016	8/23/2016
440-156143-1	8/19/2016	8/19/2016	8/25/2016 8/26/2016
440-156810-01	9/14/2016 9/14/2016	9/15/2016	9/20/2016 9/21/2016

The temperatures of the coolers upon receipt at the laboratory were within acceptance limits (acceptable range is 6 ^{o}C ±2 ^{o}C). The samples were analyzed as indicated, within the 14-day holding time for preserved samples.

II. GC/MS Instrument Performance Check

Bromofluorobenzene (BFB) instrument performance checks were analyzed at the appropriate frequency. All of the performance checks associated with samples were fully documented and were acceptable.

III. Calibration

A. Initial Calibration (IC)

Summary results for six initial calibrations (ICs) were reported in support of the sample analyses:

- GCMS59 – 4/9/2016, 4/20/2016, 8/2/2016
- GCMS92 – 6/8/2016, 6/11/2016, 7/8/2016
- GCMS13 – 9/9/2016, 9/13/2016

Although more compounds than were specifically applicable to these analyses were reported, only project-specified target analytes were reviewed.

Documentation of all of the individual IC standards was present in the data package and relative response factors (RRFs) as well as percent relative standard deviation (%RSD) values were accurately reported. All reported %RSD values were below the maximum acceptance limit of 15 percent as defined in the analytical method and project-specific QAPP. Correlation coefficients were acceptable (>0.99). All average RRF values were acceptable.

Initial calibration verifications (ICV) were performed following each IC and percent differences (%D) were acceptable with the exception of dichlorodifluoromethane (31%D) in the ICV run on GCMS13. The response represents a decrease in instrument sensitivity. The results for dichlorodifluoromethane in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (J-, UJ) due to low ICV.

B. Continuing Calibration (CC)

Continuing calibration (CC) standards were run in support of the sample analyses. Documentation was present in the data package, and the percent differences (%Ds) were acceptable (<20%D) with the following exceptions:

- 440-155928-1
  - GCMS59 – 8/22/2016: isopropyl alcohol (IPA) - (29.5%). The %D for IPA represents an increase in instrument sensitivity. IPA was not detected in the associated samples and qualification of sample results was not warranted.
  - GCMS59 - 8/20/2016: chloromethane (31%), chloroethane (26%) and 1,2-dichoroethane (21%). The %D for 1,2-dichoroethane represents an increase in instrument sensitivity. 1,2-Dichloroethane was not detected in the associated samples and qualification of sample results was not warranted. The results for chloroethane and chloromethane in OC_GW_DPE-8_20160817, OC_GW_OW1B_20160817, OC_GW_OW12N_20160817 and OC_GW_TB_20160817 were qualified as estimated (UJ) due to low response in CC.
  - GCMS92 - 8/20/2016: IPA (23%). The %D represents a decrease instrument sensitivity. The results for IPA in OC-GW-DPE-8_20160817, OC-GW-OW1B_20160817, OC-GW-OW12N_20160817 and OC-GW-TB_20160817 were qualified as estimated (UJ) due to low response in CC.
- 440-156143-1
  - GCMS92 – 8/25/2016 – chloroethane (22%), Freon 113 (27.9%) and IPA (31.2%). The %Ds for chloroethane, Freon 113 and IPA represent a decrease in instrument sensitivity. The results for chloroethane, Freon 113 and IPA in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819, OC_GW_OW9_20160819, OC_GW_OW11N_20160819 and

OC_GW_TB_20160819 were qualified as estimated (J-, UJ) due to low response in CC.

- 440-158610-1

  - GCMS13 – 9/20/2016 – acetone (21%D), 1,2-dibromo-3-chloropropane (22%D) and bromoform (22%D). The %Ds for acetone, 1,2-dibromo-3-chloropropane and bromoform represent a decrease in instrument sensitivity. The results for acetone, 1,2-dibromo-3-chloropropane and bromoform OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (UJ) due to low response in CC.

IV. Blanks

A laboratory method blank was reported for each analytical batch. Methylene chloride (1.02 ug/L) was detected in the method blank run on August 25, 2016, on GCMS92 and in OC_GW_TB_20160914 (0.88 ug/L). Methylene chloride was not detected in the samples associated with these blanks and no qualification of sample results was warranted. No target analytes were detected in the remaining method blanks or in any of the trip blanks. Tetrachloroethene (0.28 ug/L) was detected in rinse blank OC-GW-OW12N_20160817 but the sample concentrations are such that the blank has no impact.

V. Surrogate Compound Recovery

Recoveries of all of the surrogate compounds were correctly calculated, accurately reported, and within acceptance limits.

VI. Spike Analysis

A. Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Site specific MS/MSD analyses were performed on the following samples. All percent recoveries and relative percent differences (RPD) were acceptable, except as noted below:

- OC_GW_DPE-4_20160817 (440-155928-1)

  - Acetone 61%R (MS)
  - Chloromethane (69/68%R)
  - 1,2-Dibromo-3-chloropropane (66/65%R)

- 1,1,2,2,-Tetrachloroethane 65%R (MS)
- Tetrachloroethene 57%R (MSD)

The results for acetone, chloromethane, 1,2-dibromo-3-chloropropane and 1,1,2,2,-tetrachloroethane in OC-GW-DPE-3_20160817, OC-GW-DPE-4_20160817, OC-GW-DPE-5_20160817, OC-GW-DPE-8_20160817, OC-GW-OW1B_20160817, OC-GW-OW12_20160817, OC-GW-OW12N_20160817, OC-GW-OW12K_20160817 and OC-GW-TB_20160817 were qualified as estimated (J-, UJ) due to low MS and/or MSD recoveries. The concentration of tetrachloroethene in the parent sample was greater than four times the concentration of the spike and a meaningful recovery is not expected. No qualification of sample results was made based on the low MSD recovery of tetrachloroethene.

- OC_GW_OW10_20160819 (440-153143-1)

  - Acetone 142%R (MS)

Acetone was not detected in the associated samples and qualification of sample results was not warranted based on the high MS recovery.

- OC_GW_OW8B_20160818 (440-156068-1)

  - Dichlorodifluoromethane 68% (MS).

The results for dichlorodifluoromethane (Freon 12) in OC_GW_DPE-3_20160817, OC_GW_DPE-4_20160817, OC_GW_DPE-5_20160817, OC_GW_DPE-8_20160817, OC_GW_OW1B_20160817, OC_GW_OW12_20160817, OC_GW_OW12N_20160817, OC_GW_OW12K_20160817 and OC_GW_TB_20160817 were qualified as estimated (J-, UJ) due to low MS recovery.

- OC_ GW_PZ-7_20160914 (440-158610-1)

  - Acetone – 67%R (MS)

The results for OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915 and OC_GW_PZ-1_20160915 were qualified as estimated (J-, UJ) due to low MS recovery.

B. Laboratory Control Sample (LCS)

An LCS and/or LCS/LCSD were reported for each day of sample analysis. All percent recoveries were acceptable with the following exceptions:

- 440-155928-1 – 8/2016 on GCMS92
    - Chloroethane – 68 %R
    - Chloromethane – 67 %R

The results for chloroethane and chloromethane in OC-GW-DPE-8_20160817, OC-GW-OW1B_20160817, OC-GW-OW12N_20160817 and OC-GW-TB_20160817 were qualified as estimated (UJ) due to low LCS recoveries.

- 440-156143-1 – 8/2516 GCMS92
    - Acetone – 138 %R
    - Chloromethane – 69 %R

The results for chloromethane in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819, OC_GW_OW9_20160819, OC_GW_OW11N_20160819 and OC_GW_TB_20160819 were qualified as estimated (UJ) due to low LCS recoveries. Acetone was not detected in the associated samples and qualification of sample results was not warranted due to high LCS recovery.

- 440-158610-1 – 9/20/2016 GCMS13

    - Chloroethane – 65%R, 38% RPD

The results for chloroethane in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (J-, UJ) due to low LCS recovery and high relative percent difference (RPD) between LCS and LCSD.

VII. Field Duplicate

The following samples were submitted as field duplicates:

- 440-155928-1- OC-GW-OW12_20160817 / OC-GW-OW12K_20160817
- 440-156143-1 - OC_GW_OW11_20160819 / OC_GW_OW11K_20160819
- 440-156068-1 - OC_GW_OW3B_20160818 / OC_GW_OW3BK_20160818
- 440-158610-1 - OC_GW_PZ-5_20160915 / OC_GW_PZ-5K_20160915

Precision between paired samples was acceptable (<20% RPD or <2x the reporting limit for the analytes detected at concentrations less than 5x the RL) in all field duplicates with the exception of tetrachloroethene in OC_GW_PZ-5_20160915 and OC_GW_PZ-5K_20160915 (34%RPD). The results for tetrachloroethene in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915,

OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915 and OC_GW_PZ-1_20160915 were qualified as estimated (J, UJ) due to imprecision between duplicate samples.

VIII. Internal Standard Performance

All internal standard areas and retention times were within quality control limits for the applicable analyses.

IX. Target Compound Identification

An acceptable mass spectrum was provided for each target analyte detected in the samples receiving full validation. Analyte-specific reporting limits are equal to the lowest standard in the calibration range and are well supported by the IC (see Section III).

X. Compound Quantitation and Reporting Limits

Target compound concentrations and reporting limits (RLs) were correctly calculated and accurately reported for the samples and spike samples associated with the full validation effort.

XI. Tentatively Identified Compounds (TIC)

Non-target compounds were reported by the laboratory. TIC results were not evaluated during the validation effort because non-target compounds were not part of the analytical requirement.

XII. System Performance

The analytical system appears to have been working satisfactorily at the time of these analyses, based on evaluation of the available raw data.

XIII. Documentation

No documentation issues were observed during the validation effort.

XIV. Overall Assessment

Based on the validation effort, the following qualifiers were applied:

- The results for IPA, in OC_GW_DPE-8_20160817, OC_GW_OW1B_20160817, OC_GW_OW12N_20160817 and OC_GW_TB_20160817 were qualified as estimated (UJ) due to low response in CC.

- The results for acetone, chloromethane, 1,2-dibromo-3-chloropropane and 1,1,2,2,-tetrachloroethane in OC-GW-DPE-3_20160817, OC-GW-DPE-4_20160817, OC-GW-DPE-5_20160817, OC-GW-DPE-8_20160817, OC-GW-OW1B_20160817, OC-GW-OW12_20160817, OC-GW-OW12N_20160817, OC-GW-OW12K_20160817 and OC-GW-TB_20160817 were qualified as estimated (J-, UJ) due to low MS and/or MSD recoveries.

- The results for dichlorodifluoromethane (Freon 12) in OC_GW_DPE-3_20160817, OC_GW_DPE-4_20160817, OC_GW_DPE-5_20160817, OC_GW_DPE-8_20160817, OC_GW_OW1B_20160817, OC_GW_OW12_20160817, OC_GW_OW12N_20160817, OC_GW_OW12K_20160817 and OC_GW_TB_20160817 were qualified as estimated (J-, UJ) due to low MS recovery.

- The results for chloroethane and chloromethane in OC-GW-DPE-8_20160817, OC-GW-OW1B_20160817, OC-GW-OW12N_20160817 and OC-GW-TB_20160817 were qualified as estimated (UJ) due to low response in CC and low LCS recoveries.

- The results for chloromethane in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819, OC_GW_OW9_20160819, OC_GW_OW11N_20160819 and OC_GW_TB_20160819 were qualified as estimated (UJ) due to low LCS recoveries

- The results for chloroethane, Freon 113 and IPA in OC_GW_OW10_20160819, OC_GW_PZ9_20160819, OC_GW_OW11_20160819, OC_GW_OW11K_20160819, OC_GW_OW9_20160819, OC_GW_OW11N_20160819 and OC_GW_TB_20160819 were qualified as estimated (J-, UJ) due to low response in CC.

- The results for dichlorodifluoromethane in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (J-, UJ) due to low ICV.

- The results for acetone, 1,2-dibromo-3-chloropropane and bromoform OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (J-, UJ) due to low response in CC.

- The results for acetone OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915 and OC_GW_PZ-1_20160915 were qualified as estimated (J-, UJ) due to low MS recovery.

- The results for chloroethane in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915, OC_GW_PZ-1_20160915 and OC_GW_TB_20160914 were qualified as estimated (J-, UJ) due to low LCS recovery and high relative percent difference (RPD) between LCS and LCSD.

- The results for tetrachloroethene in OC_GW_PZ-7_20160914, OC_GW_PZ-8_20160914, OC_GW_PZ-4_20160914, OC_GW_PZ-4N_20160914, OC_GW_PZ-5_20160915, OC_GW_PZ-5K_20160915, OC_GW_PZ-6_20160915, OC_GW_PZ-6N_20160915 and OC_GW_PZ-1_20160915 were qualified as estimated (J, UJ) due to imprecision between duplicate samples.

All other results were determined to be valid as reported. Documentation issues observed in the data package are described in Section XIII.

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 Water
440-155928-1
440-156068-1
440-156143-1
440-158610-1

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC-GW-DPE-3_20160817		OC-GW-DPE-4_20160817		OC-GW-DPE-5_20160817		OC-GW-DPE-8_20160817	
Lab Sample ID		440-155928-1		440-155928-2		440-155928-3		440-155928-4	
Dilution Factor		1, 2.5		2.5, 10		1,2		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)	1.2							
1	1,1,2,2-Tetrachloroethane		UJ		UJ		UJ		UJ
1	1,1,2-Trichloroethane	6.7		2.5					
1	1,1-Dichloroethane			1.2	J	0.29	J		
1	1,1-Dichloroethene	8.2		15		53		2.7	
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene								
5	1,2-Dibromo-3-chloropropane		UJ		UJ		UJ		UJ
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene	0.36	J						
1	1,2-Dichloroethane	4.7		12		0.42	J		
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone		UJ		UJ		UJ		UJ
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane								UJ
1	Chloroform	5.4		29		10		0.83	J
1	Chloromethane		UJ		UJ		UJ		UJ
1	cis-1,2-Dichloroethene								
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11	9		7.9		8.9		2.3	
5	Freon 113	130		150		14		2.9	J
1	Freon 12		UJ		UJ		UJ		UJ
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)								UJ
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride								
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)	510		1300		240		47	
1	Toluene								
1	trans-1,2-Dichloroethene								
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)	17		47		21		5.2	
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC-GW-OW12_20160817		OC-GW-OW12K_20160817		OC-GW-OW12N_20160817		OC-GW-OW1B_20160817	
Lab Sample ID		440-155928-6		440-155928-8		440-155928-7		440-155928-5	
Dilution Factor		10, 25		10, 40		1		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)	44		44					
1	1,1,2,2-Tetrachloroethane		UJ		UJ		UJ		UJ
1	1,1,2-Trichloroethane								
1	1,1-Dichloroethane								
1	1,1-Dichloroethene	140		140					
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene	3.5	J	3.9	J				
5	1,2-Dibromo-3-chloropropane		UJ		UJ		UJ		UJ
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene	3.2	J	3.7	J				
1	1,2-Dichloroethane	5.9	J	7.1	J				
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone		UJ		UJ		UJ		UJ
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane						UJ		UJ
1	Chloroform	130		140					
1	Chloromethane		UJ		UJ		UJ		UJ
1	cis-1,2-Dichloroethene								
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11	65		65				8.3	
5	Freon 113	2200		2300				16	
1	Freon 12		UJ		UJ		UJ		UJ
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)						UJ		UJ
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride	17	J	18	J				
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)	2300		2400		0.28	J	5.6	
1	Toluene	38		41					
1	trans-1,2-Dichloroethene								
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)	230		240					
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC-GW-TB_20160817	
Lab Sample ID		440-155928-9	
Dilution Factor		1	
RL			
1	1,1,1,2-Tetrachloroethane		
1	1,1,1-Trichloroethane (TCA)		
1	1,1,2,2-Tetrachloroethane		UJ
1	1,1,2-Trichloroethane		
1	1,1-Dichloroethane		
1	1,1-Dichloroethene		
1	1,1-Dichloropropene		
1	1,2,3-Trichlorobenzene		
1	1,2,3-Trichloropropane		
1	1,2,4-Trichlorobenzene		
1	1,2,4-Trimethylbenzene		
5	1,2-Dibromo-3-chloropropane		UJ
1	1,2-Dibromoethane (EDB)		
1	1,2-Dichlorobenzene		
1	1,2-Dichloroethane		
1	1,2-Dichloropropane		
1	1,3,5-Trimethylbenzene		
1	1,3-Dichlorobenzene		
1	1,3-Dichloropropane		
1	1,4-Dichlorobenzene		
1	2,2-Dichloropropane		
1	2-Chlorotoluene		
1	4-Chlorotoluene		
10	Acetone		UJ
0.5	Benzene		
1	Bromobenzene		
1	Bromochloromethane		
1	Bromodichloromethane		
1	Bromoform		
1	Bromomethane		
0.5	Carbon tetrachloride		
1	Chlorobenzene		
1	Chloroethane		UJ
1	Chloroform		
1	Chloromethane		UJ
1	cis-1,2-Dichloroethene		
0.5	cis-1,3-Dichloropropene		
1	Dibromochloromethane		
1	Dibromomethane		
1	Ethylbenzene		
1	Freon 11		
5	Freon 113		
1	Freon 12		UJ
1	Hexachlorobutadiene		
250	Isopropyl Alcohol (Isopropanol)		UJ
1	Isopropylbenzene		
1	m,p-Xylene		
1	Methyl Tert-Butyl Ether		
5	Methylene chloride		
1	Naphthalene		
1	N-butylbenzene		
1	o-Xylene		
1	p-Isopropyltoluene		
1	Propylbenzene		
1	sec-Butylbenzene		
1	Styrene		
1	tert-Butylbenzene		
1	Tetrachloroethene (PCE)		
1	Toluene		
1	trans-1,2-Dichloroethene		
0.5	trans-1,3-Dichloropropene		
1	Trichloroethene (TCE)		
0.5	Vinyl chloride		

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_DPE9_20160818		OC_GW_EW1_20160818		OC_GW_EW3_20160818		OC_GW_EW4_20160818	
Lab Sample ID		440-156068-1		440-156068-8		440-156068-7		440-156068-5	
Dilution Factor		1,5		1		1		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)								
1	1,1,2,2-Tetrachloroethane								
1	1,1,2-Trichloroethane	0.69	J	0.29	J			0	
1	1,1-Dichloroethane	0.93	J	0.42	J	0.26	J		
1	1,1-Dichloroethene	36		14		85		46	
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene								
5	1,2-Dibromo-3-chloropropane								
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene								
1	1,2-Dichloroethane	6.4		2.2					
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone								
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane								
1	Chloroform	29		9.4		3.1			
1	Chloromethane			1.3					
1	cis-1,2-Dichloroethene	0.29	J			0.74	J		
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11	9.9		4.6		34		13	
5	Freon 113	33		20		67		26	
1	Freon 12		UJ		UJ		UJ		UJ
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)								
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride								
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)	580		220		160		43	
1	Toluene								
1	trans-1,2-Dichloroethene	0.3	J						
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)	35		20		20		4.7	
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_EW5_20160818		OC_GW_OW3B_20160818		OC_GW_OW3BK_20160818		OC_GW_OW4B_20160818	
Lab Sample ID		440-156068-4		440-156068-2		440-156068-3		440-156068-9	
Dilution Factor		1		1		1		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)								
1	1,1,2,2-Tetrachloroethane								
1	1,1,2-Trichloroethane								
1	1,1-Dichloroethane								
1	1,1-Dichloroethene	23						3.8	
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene								
5	1,2-Dibromo-3-chloropropane								
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene								
1	1,2-Dichloroethane							0.53	J
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone								
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane								
1	Chloroform								
1	Chloromethane								
1	cis-1,2-Dichloroethene								
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11	41						0.59	J
5	Freon 113	69						9.3	
1	Freon 12		UJ		UJ		UJ		UJ
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)								
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride								
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)	20		4.6		4.8		8.8	
1	Toluene								
1	trans-1,2-Dichloroethene								
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)	2.6						2.6	
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_OW4BN_20160818		OC_GW_OW8B_20160818		OC_GW_TB1_20160818		OC_GW_TB2_20160818	
Lab Sample ID		440-156068-10		440-156068-6		440-156068-11		440-156068-12	
Dilution Factor		1		1		1		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)								
1	1,1,2,2-Tetrachloroethane								
1	1,1,2-Trichloroethane								
1	1,1-Dichloroethane								
1	1,1-Dichloroethene								
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene								
5	1,2-Dibromo-3-chloropropane								
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene								
1	1,2-Dichloroethane								
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone								
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane								
1	Chloroform								
1	Chloromethane								
1	cis-1,2-Dichloroethene								
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11								
5	Freon 113								
1	Freon 12		UJ		UJ				
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)								
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride								
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)			22					
1	Toluene								
1	trans-1,2-Dichloroethene								
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)								
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_OW10_20160819		OC_GW_OW11_20160819		OC_GW_OW11K_20160819		OC_GW_OW11N_20160819	
Lab Sample ID		440-156143-1		440-156143-3		440-156143-4		440-156143-6	
Dilution Factor		1		1, 5		1,5		1	
RL									
1	1,1,1,2-Tetrachloroethane								
1	1,1,1-Trichloroethane (TCA)								
1	1,1,2,2-Tetrachloroethane								
1	1,1,2-Trichloroethane								
1	1,1-Dichloroethane								
1	1,1-Dichloroethene	10		30		30			
1	1,1-Dichloropropene								
1	1,2,3-Trichlorobenzene								
1	1,2,3-Trichloropropane								
1	1,2,4-Trichlorobenzene								
1	1,2,4-Trimethylbenzene								
5	1,2-Dibromo-3-chloropropane								
1	1,2-Dibromoethane (EDB)								
1	1,2-Dichlorobenzene								
1	1,2-Dichloroethane								
1	1,2-Dichloropropane								
1	1,3,5-Trimethylbenzene								
1	1,3-Dichlorobenzene								
1	1,3-Dichloropropane								
1	1,4-Dichlorobenzene								
1	2,2-Dichloropropane								
1	2-Chlorotoluene								
1	4-Chlorotoluene								
10	Acetone								
0.5	Benzene								
1	Bromobenzene								
1	Bromochloromethane								
1	Bromodichloromethane								
1	Bromoform								
1	Bromomethane								
0.5	Carbon tetrachloride								
1	Chlorobenzene								
1	Chloroethane		UJ		UJ		UJ		UJ
1	Chloroform			0.36	J	0.43	J		
1	Chloromethane		UJ		UJ		UJ		UJ
1	cis-1,2-Dichloroethene								
0.5	cis-1,3-Dichloropropene								
1	Dibromochloromethane								
1	Dibromomethane								
1	Ethylbenzene								
1	Freon 11	2.6		19		20			
5	Freon 113	3.9	J-	57	J-	61	J-		UJ
1	Freon 12								
1	Hexachlorobutadiene								
250	Isopropyl Alcohol (Isopropanol)		UJ		UJ		UJ		UJ
1	Isopropylbenzene								
1	m,p-Xylene								
1	Methyl Tert-Butyl Ether								
5	Methylene chloride								
1	Naphthalene								
1	N-butylbenzene								
1	o-Xylene								
1	p-Isopropyltoluene								
1	Propylbenzene								
1	sec-Butylbenzene								
1	Styrene								
1	tert-Butylbenzene								
1	Tetrachloroethene (PCE)	19		150		160			
1	Toluene								
1	trans-1,2-Dichloroethene								
0.5	trans-1,3-Dichloropropene								
1	Trichloroethene (TCE)	1.2		38		41			
0.5	Vinyl chloride								

Data Summary Form - Volatile Organics
Groundwaters
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_OW9_20160819		OC_GW_PZ9_20160819		OC_GW_TB_20160819	
Lab Sample ID		440-156143-5		440-156143-2		440-156143-7	
Dilution Factor		40, 200		10, 50		1	
RL							
1	1,1,1,2-Tetrachloroethane						
1	1,1,1-Trichloroethane (TCA)						
1	1,1,2,2-Tetrachloroethane						
1	1,1,2-Trichloroethane			3.5	J		
1	1,1-Dichloroethane	16	J	7.5	J		
1	1,1-Dichloroethene	480		290			
1	1,1-Dichloropropene						
1	1,2,3-Trichlorobenzene						
1	1,2,3-Trichloropropane						
1	1,2,4-Trichlorobenzene						
1	1,2,4-Trimethylbenzene						
5	1,2-Dibromo-3-chloropropane						
1	1,2-Dibromoethane (EDB)						
1	1,2-Dichlorobenzene						
1	1,2-Dichloroethane	150		51			
1	1,2-Dichloropropane						
1	1,3,5-Trimethylbenzene						
1	1,3-Dichlorobenzene						
1	1,3-Dichloropropane						
1	1,4-Dichlorobenzene						
1	2,2-Dichloropropane						
1	2-Chlorotoluene						
1	4-Chlorotoluene						
10	Acetone						
0.5	Benzene						
1	Bromobenzene						
1	Bromochloromethane						
1	Bromodichloromethane						
1	Bromoform						
1	Bromomethane						
0.5	Carbon tetrachloride						
1	Chlorobenzene						
1	Chloroethane		UJ		UJ		UJ
1	Chloroform	530		250			
1	Chloromethane		UJ		UJ		UJ
1	cis-1,2-Dichloroethene			4	J		
0.5	cis-1,3-Dichloropropene						
1	Dibromochloromethane						
1	Dibromomethane						
1	Ethylbenzene						
1	Freon 11	110		96			
5	Freon 113	250	J-	280	J-		UJ
1	Freon 12						
1	Hexachlorobutadiene						
250	Isopropyl Alcohol (Isopropanol)		UJ		UJ		UJ
1	Isopropylbenzene						
1	m,p-Xylene						
1	Methyl Tert-Butyl Ether						
5	Methylene chloride						
1	Naphthalene						
1	N-butylbenzene						
1	o-Xylene						
1	p-Isopropyltoluene						
1	Propylbenzene						
1	sec-Butylbenzene						
1	Styrene						
1	tert-Butylbenzene						
1	Tetrachloroethene (PCE)	8100		3000			
1	Toluene						
1	trans-1,2-Dichloroethene			2.6	J		
0.5	trans-1,3-Dichloropropene						
1	Trichloroethene (TCE)	340		190			
0.5	Vinyl chloride						

Data Summary Form - Volatile Organics
Groundwater
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_PZ-1_20160915		OC_GW_PZ-4_20160914		OC_GW_PZ-5_20160915		OC_GW_PZ-5K_20160915		OC_GW_PZ-6_201
Lab Sample ID		440-158610-9		440-158610-3		440-158610-5		440-158610-6		440-158610-7
Dilution Factor		1, 10		1		1		1		1
RL										
1	1,1,1,2-Tetrachloroethane									
1	1,1,1-Trichloroethane (TCA)									
1	1,1,2,2-Tetrachloroethane									
1	1,1,2-Trichloroethane									
1	1,1-Dichloroethane	0.53	J							
1	1,1-Dichloroethene	60		48						
1	1,1-Dichloropropene									
1	1,2,3-Trichlorobenzene									
1	1,2,3-Trichloropropane									
1	1,2,4-Trichlorobenzene									
1	1,2,4-Trimethylbenzene									
5	1,2-Dibromo-3-chloropropane		UJ		UJ		UJ		UJ	
1	1,2-Dibromoethane (EDB)									
1	1,2-Dichlorobenzene									
1	1,2-Dichloroethane	0.96	J							
1	1,2-Dichloropropane									
1	1,3,5-Trimethylbenzene									
1	1,3-Dichlorobenzene									
1	1,3-Dichloropropane									
1	1,4-Dichlorobenzene									
1	2,2-Dichloropropane									
1	2-Chlorotoluene									
1	4-Chlorotoluene									
10	Acetone		UJ		UJ		UJ		UJ	
0.5	Benzene									
1	Bromobenzene									
1	Bromochloromethane									
1	Bromodichloromethane									
1	Bromoform		UJ		UJ		UJ		UJ	
1	Bromomethane									
0.5	Carbon tetrachloride									
1	Chlorobenzene									
1	Chloroethane		UJ		UJ		UJ		UJ	
1	Chloroform	13								
1	Chloromethane									
1	cis-1,2-Dichloroethene	0.29	J							
0.5	cis-1,3-Dichloropropene									
1	Dibromochloromethane									
1	Dibromomethane									
1	Ethylbenzene									
1	Freon 11	15		13		0.96	J	0.49	J	0.37
5	Freon 113	27		26		1.7	J	0.78	J	
1	Freon 12		UJ		UJ		UJ		UJ	
1	Hexachlorobutadiene									
250	Isopropyl Alcohol (Isopropanol)									
1	Isopropylbenzene									
1	m,p-Xylene									
1	Methyl Tert-Butyl Ether									
5	Methylene chloride									
1	Naphthalene									
1	N-butylbenzene									
1	o-Xylene									
1	p-Isopropyltoluene									
1	Propylbenzene									
1	sec-Butylbenzene									
1	Styrene									
1	tert-Butylbenzene									
1	Tetrachloroethene (PCE)	420	J	40	J	9.9	J	7	J	15
1	Toluene									
1	trans-1,2-Dichloroethene									
0.5	trans-1,3-Dichloropropene									
1	Trichloroethene (TCE)	27		4.8						
0.5	Vinyl chloride									

Data Summary Form - Volatile Organics
Groundwater
Omega Chemical
(ug/L)

	Field Sample ID	60915	OC_GW_PZ-7_20160914		OC_GW_PZ-8_20160914		OC_GW_TB_20160914		OC_GW_PZ_4N_20160914	
	Lab Sample ID	7	440-158610-1		440-158610-2		440-158610-10		440-158610-4	
	Dilution Factor		1		1		1		1	
RL										
1	1,1,1,2-Tetrachloroethane									
1	1,1,1-Trichloroethane (TCA)									
1	1,1,2,2-Tetrachloroethane									
1	1,1,2-Trichloroethane									
1	1,1-Dichloroethane									
1	1,1-Dichloroethene									
1	1,1-Dichloropropene									
1	1,2,3-Trichlorobenzene									
1	1,2,3-Trichloropropane									
1	1,2,4-Trichlorobenzene									
1	1,2,4-Trimethylbenzene									
5	1,2-Dibromo-3-chloropropane	UJ		UJ		UJ		UJ		UJ
1	1,2-Dibromoethane (EDB)									
1	1,2-Dichlorobenzene									
1	1,2-Dichloroethane									
1	1,2-Dichloropropane									
1	1,3,5-Trimethylbenzene									
1	1,3-Dichlorobenzene									
1	1,3-Dichloropropane									
1	1,4-Dichlorobenzene									
1	2,2-Dichloropropane									
1	2-Chlorotoluene									
1	4-Chlorotoluene									
10	Acetone	UJ		UJ		UJ		UJ		UJ
0.5	Benzene									
1	Bromobenzene									
1	Bromochloromethane									
1	Bromodichloromethane									
1	Bromoform	UJ		UJ		UJ		UJ		UJ
1	Bromomethane									
0.5	Carbon tetrachloride									
1	Chlorobenzene									
1	Chloroethane	UJ		UJ		UJ		UJ		UJ
1	Chloroform									
1	Chloromethane									
1	cis-1,2-Dichloroethene									
0.5	cis-1,3-Dichloropropene									
1	Dibromochloromethane									
1	Dibromomethane									
1	Ethylbenzene									
1	Freon 11	J	4.2		2					
5	Freon 113		9.8		2.6	J				
1	Freon 12	UJ		UJ		UJ		UJ		UJ
1	Hexachlorobutadiene									
250	Isopropyl Alcohol (Isopropanol)									
1	Isopropylbenzene									
1	m,p-Xylene									
1	Methyl Tert-Butyl Ether									
5	Methylene chloride						0.88	J		
1	Naphthalene									
1	N-butylbenzene									
1	o-Xylene									
1	p-Isopropyltoluene									
1	Propylbenzene									
1	sec-Butylbenzene									
1	Styrene									
1	tert-Butylbenzene									
1	Tetrachloroethene (PCE)	J	9.3	J	8.9	J				
1	Toluene									
1	trans-1,2-Dichloroethene									
0.5	trans-1,3-Dichloropropene									
1	Trichloroethene (TCE)		0.41	J						
0.5	Vinyl chloride									

Data Summary Form - Volatile Organics
Groundwater
Omega Chemical
(ug/L)

Field Sample ID		OC_GW_PZ_6N_20160915	
Lab Sample ID		440-158610-8	
Dilution Factor		1	
RL			
1	1,1,1,2-Tetrachloroethane		
1	1,1,1-Trichloroethane (TCA)		
1	1,1,2,2-Tetrachloroethane		
1	1,1,2-Trichloroethane		
1	1,1-Dichloroethane		
1	1,1-Dichloroethene		
1	1,1-Dichloropropene		
1	1,2,3-Trichlorobenzene		
1	1,2,3-Trichloropropane		
1	1,2,4-Trichlorobenzene		
1	1,2,4-Trimethylbenzene		
5	1,2-Dibromo-3-chloropropane		UJ
1	1,2-Dibromoethane (EDB)		
1	1,2-Dichlorobenzene		
1	1,2-Dichloroethane		
1	1,2-Dichloropropane		
1	1,3,5-Trimethylbenzene		
1	1,3-Dichlorobenzene		
1	1,3-Dichloropropane		
1	1,4-Dichlorobenzene		
1	2,2-Dichloropropane		
1	2-Chlorotoluene		
1	4-Chlorotoluene		
10	Acetone		UJ
0.5	Benzene		
1	Bromobenzene		
1	Bromochloromethane		
1	Bromodichloromethane		
1	Bromoform		UJ
1	Bromomethane		
0.5	Carbon tetrachloride		
1	Chlorobenzene		
1	Chloroethane		UJ
1	Chloroform		
1	Chloromethane		
1	cis-1,2-Dichloroethene		
0.5	cis-1,3-Dichloropropene		
1	Dibromochloromethane		
1	Dibromomethane		
1	Ethylbenzene		
1	Freon 11		
5	Freon 113		
1	Freon 12		UJ
1	Hexachlorobutadiene		
250	Isopropyl Alcohol (Isopropanol)		
1	Isopropylbenzene		
1	m,p-Xylene		
1	Methyl Tert-Butyl Ether		
5	Methylene chloride		
1	Naphthalene		
1	N-butylbenzene		
1	o-Xylene		
1	p-Isopropyltoluene		
1	Propylbenzene		
1	sec-Butylbenzene		
1	Styrene		
1	tert-Butylbenzene		
1	Tetrachloroethene (PCE)		
1	Toluene		
1	trans-1,2-Dichloroethene		
0.5	trans-1,3-Dichloropropene		
1	Trichloroethene (TCE)		
0.5	Vinyl chloride		

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WORK ORDER NUMBER: 16-07-0258

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: de maximis, inc.

Client Project Name: Omega

Attention: Jaime Dinello
1322 Scott Street
Suite 104
San Diego, CA 92106-2727

Approved for release on 07/14/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Narrative

Work Order: 16-07-0258 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 07/06/16. They were assigned to Work Order 16-07-0258.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order:	16-07-0258
		Project Name:	Omega
		PO Number:	GWTS GAC GL 6308
		Date/Time Received:	07/06/16 14:11
		Number of Containers:	3
Attn:	Jaime Dinello		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OC_VGAC_EFF_SP242_070616	16-07-0258-1	07/06/16 11:03	1	Air
OC_VGAC_INT_SP245_070616	16-07-0258-2	07/06/16 11:04	1	Air
OC_VGAC_INF_SP241_070616	16-07-0258-3	07/06/16 11:05	1	Air

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Detections Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order: Project Name: Received:	16-07-0258 Omega 07/06/16
Attn:	Jaime Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_070616 (16-07-0258-1)						
2-Butanone	2.6		1.5	ppb (v/v)	EPA TO-15	N/A
Chloroform	1.6		0.50	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethane	0.56		0.50	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	18		0.50	ppb (v/v)	EPA TO-15	N/A
Tetrachloroethene	1.1		0.50	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	3.7		1.0	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	31		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INT_SP245_070616 (16-07-0258-2)						
Chloroform	6.1		0.64	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	16		0.64	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	2.8		1.3	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	10		1.9	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	38		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INF_SP241_070616 (16-07-0258-3)						
Chloroform	3.1		0.58	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	6.5		0.58	ppb (v/v)	EPA TO-15	N/A
1,2-Dichloroethane	0.91		0.58	ppb (v/v)	EPA TO-15	N/A
Tetrachloroethene	55		0.58	ppb (v/v)	EPA TO-15	N/A
Trichloroethene	4.2		0.58	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	1.9		1.2	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	7.7		1.8	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	85		10	ppb (v/v)	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Detections Summary

Client:	de maximis, inc.	Work Order:	16-07-0258
	1322 Scott Street, Suite 104	Project Name:	Omega
	San Diego, CA 92106-2727	Received:	07/06/16
Attn:	Jaime Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_070616 (16-07-0258-1)						
2-Butanone	7.8		4.4	ug/m3	EPA TO-15	N/A
Chloroform	7.7		2.4	ug/m3	EPA TO-15	N/A
1,1-Dichloroethane	2.3		2.0	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	71		2.0	ug/m3	EPA TO-15	N/A
Tetrachloroethene	7.6		3.4	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	21		5.6	ug/m3	EPA TO-15	N/A
OC_VGAC_INT_SP245_070616 (16-07-0258-2)						
Chloroform	30		3.1	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	62		2.5	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	16		7.1	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	80		15	ug/m3	EPA TO-15	N/A
OC_VGAC_INF_SP241_070616 (16-07-0258-3)						
Chloroform	15		2.9	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	26		2.3	ug/m3	EPA TO-15	N/A
1,2-Dichloroethane	3.7		2.4	ug/m3	EPA TO-15	N/A
Tetrachloroethene	370		4.0	ug/m3	EPA TO-15	N/A
Trichloroethene	23		3.1	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	10		6.6	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	59		13	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_070616	**16-07-0258-1-A**	**07/06/16 11:03**	**Air**	**GC/MS K**	**N/A**	**07/10/16 22:09**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
2-Butanone	2.6	1.5	1.00	
Carbon Disulfide	ND	2.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chloroform	1.6	0.50	1.00	
Dichlorodifluoromethane	ND	0.50	1.00	
1,1-Dichloroethane	0.56	0.50	1.00	
1,1-Dichloroethene	18	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,4-Dioxane	ND	10	1.00	
Hexane	ND	2.0	1.00	
Methylene Chloride	ND	5.0	1.00	
o-Xylene	ND	0.50	1.00	
Tetrachloroethene	1.1	0.50	1.00	
Toluene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	3.7	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
Isopropanol	ND	5.0	1.00	
Total Volatile Organic Compounds	31	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	109	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_070616	**16-07-0258-2-A**	**07/06/16 11:04**	**Air**	**GC/MS K**	**N/A**	**07/10/16 23:04**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.64	1.27	
2-Butanone	ND	1.9	1.27	
Carbon Disulfide	ND	2.5	1.27	
Carbon Tetrachloride	ND	0.64	1.27	
Chloroform	6.1	0.64	1.27	
Dichlorodifluoromethane	ND	0.64	1.27	
1,1-Dichloroethane	ND	0.64	1.27	
1,1-Dichloroethene	16	0.64	1.27	
1,2-Dichloroethane	ND	0.64	1.27	
1,4-Dioxane	ND	13	1.27	
Hexane	ND	2.5	1.27	
Methylene Chloride	ND	6.4	1.27	
o-Xylene	ND	0.64	1.27	
Tetrachloroethene	ND	0.64	1.27	
Toluene	ND	0.64	1.27	
Trichloroethene	ND	0.64	1.27	
Trichlorofluoromethane	2.8	1.3	1.27	
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	1.9	1.27	
1,1,1-Trichloroethane	ND	0.64	1.27	
1,1,2-Trichloroethane	ND	0.64	1.27	
Vinyl Chloride	ND	0.64	1.27	
Isopropanol	ND	6.4	1.27	
Total Volatile Organic Compounds	38	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	57-129	
1,2-Dichloroethane-d4	108	47-137	
Toluene-d8	96	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_070616	**16-07-0258-3-A**	**07/06/16 11:05**	**Air**	**GC/MS K**	**N/A**	**07/11/16 00:00**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.58	1.17	
2-Butanone	ND	1.8	1.17	
Carbon Disulfide	ND	2.3	1.17	
Carbon Tetrachloride	ND	0.58	1.17	
Chloroform	3.1	0.58	1.17	
Dichlorodifluoromethane	ND	0.58	1.17	
1,1-Dichloroethane	ND	0.58	1.17	
1,1-Dichloroethene	6.5	0.58	1.17	
1,2-Dichloroethane	0.91	0.58	1.17	
1,4-Dioxane	ND	12	1.17	
Hexane	ND	2.3	1.17	
Methylene Chloride	ND	5.8	1.17	
o-Xylene	ND	0.58	1.17	
Tetrachloroethene	55	0.58	1.17	
Toluene	ND	0.58	1.17	
Trichloroethene	4.2	0.58	1.17	
Trichlorofluoromethane	1.9	1.2	1.17	
1,1,2-Trichloro-1,2,2-Trifluoroethane	7.7	1.8	1.17	
1,1,1-Trichloroethane	ND	0.58	1.17	
1,1,2-Trichloroethane	ND	0.58	1.17	
Vinyl Chloride	ND	0.58	1.17	
Isopropanol	ND	5.8	1.17	
Total Volatile Organic Compounds	85	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	110	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-219**	**N/A**	**Air**	**GC/MS K**	**N/A**	**07/10/16 14:53**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
2-Butanone	ND	1.5	1.00	
Carbon Disulfide	ND	2.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Dichlorodifluoromethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,4-Dioxane	ND	10	1.00	
Hexane	ND	2.0	1.00	
Methylene Chloride	ND	5.0	1.00	
o-Xylene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
Isopropanol	ND	5.0	1.00	
Total Volatile Organic Compounds	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	57-129	
1,2-Dichloroethane-d4	105	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_070616	**16-07-0258-1-A**	**07/06/16 11:03**	**Air**	**GC/MS K**	**N/A**	**07/10/16 22:09**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.6	1.00	
2-Butanone	7.8	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chloroform	7.7	2.4	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	2.3	2.0	1.00	
1,1-Dichloroethene	71	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,4-Dioxane	ND	36	1.00	
Hexane	ND	7.0	1.00	
Methylene Chloride	ND	17	1.00	
o-Xylene	ND	2.2	1.00	
Tetrachloroethene	7.6	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	21	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	
Isopropanol	ND	12	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	109	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_070616	**16-07-0258-2-A**	**07/06/16 11:04**	**Air**	**GC/MS K**	**N/A**	**07/10/16 23:04**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.0	1.27	
2-Butanone	ND	5.6	1.27	
Carbon Disulfide	ND	7.9	1.27	
Carbon Tetrachloride	ND	4.0	1.27	
Chloroform	30	3.1	1.27	
Dichlorodifluoromethane	ND	3.1	1.27	
1,1-Dichloroethane	ND	2.6	1.27	
1,1-Dichloroethene	62	2.5	1.27	
1,2-Dichloroethane	ND	2.6	1.27	
1,4-Dioxane	ND	46	1.27	
Hexane	ND	9.0	1.27	
Methylene Chloride	ND	22	1.27	
o-Xylene	ND	2.8	1.27	
Tetrachloroethene	ND	4.3	1.27	
Toluene	ND	2.4	1.27	
Trichloroethene	ND	3.4	1.27	
Trichlorofluoromethane	16	7.1	1.27	
1,1,2-Trichloro-1,2,2-Trifluoroethane	80	15	1.27	
1,1,1-Trichloroethane	ND	3.5	1.27	
1,1,2-Trichloroethane	ND	3.5	1.27	
Vinyl Chloride	ND	1.6	1.27	
Isopropanol	ND	16	1.27	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	57-129	
1,2-Dichloroethane-d4	108	47-137	
Toluene-d8	96	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_070616	**16-07-0258-3-A**	**07/06/16 11:05**	**Air**	**GC/MS K**	**N/A**	**07/11/16 00:00**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.9	1.17	
2-Butanone	ND	5.2	1.17	
Carbon Disulfide	ND	7.3	1.17	
Carbon Tetrachloride	ND	3.7	1.17	
Chloroform	15	2.9	1.17	
Dichlorodifluoromethane	ND	2.9	1.17	
1,1-Dichloroethane	ND	2.4	1.17	
1,1-Dichloroethene	26	2.3	1.17	
1,2-Dichloroethane	3.7	2.4	1.17	
1,4-Dioxane	ND	42	1.17	
Hexane	ND	8.2	1.17	
Methylene Chloride	ND	20	1.17	
o-Xylene	ND	2.5	1.17	
Tetrachloroethene	370	4.0	1.17	
Toluene	ND	2.2	1.17	
Trichloroethene	23	3.1	1.17	
Trichlorofluoromethane	10	6.6	1.17	
1,1,2-Trichloro-1,2,2-Trifluoroethane	59	13	1.17	
1,1,1-Trichloroethane	ND	3.2	1.17	
1,1,2-Trichloroethane	ND	3.2	1.17	
Vinyl Chloride	ND	1.5	1.17	
Isopropanol	ND	14	1.17	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	110	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	07/06/16
1322 Scott Street, Suite 104		Work Order:	16-07-0258
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-219**	**N/A**	**Air**	**GC/MS K**	**N/A**	**07/10/16 14:53**	**160710L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.6	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chloroform	ND	2.4	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,4-Dioxane	ND	36	1.00	
Hexane	ND	7.0	1.00	
Methylene Chloride	ND	17	1.00	
o-Xylene	ND	2.2	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	
Isopropanol	ND	12	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	101	57-129	
1,2-Dichloroethane-d4	105	47-137	
Toluene-d8	98	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Project: Omega

Date Received:	07/06/16
Work Order:	16-07-0258
Preparation:	N/A
Method:	EPA TO-15

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-608-219	**LCS**	**Air**	**GC/MS K**	**N/A**	**07/10/16 12:10**	**160710L03**
099-15-608-219	**LCSD**	**Air**	**GC/MS K**	**N/A**	**07/10/16 13:03**	**160710L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	70.42	88	70.34	88	60-156	44-172	0	0-40	
2-Butanone	73.73	66.75	91	68.40	93	50-150	33-167	2	0-35	
Carbon Disulfide	77.85	72.65	93	72.34	93	50-150	33-167	0	0-35	
Carbon Tetrachloride	157.3	154.6	98	153.4	98	64-154	49-169	1	0-32	
Chloroform	122.1	109.5	90	109.6	90	50-150	33-167	0	0-35	
Dichlorodifluoromethane	123.6	114.3	92	108.0	87	50-150	33-167	6	0-35	
1,1-Dichloroethane	101.2	127.9	126	127.4	126	50-150	33-167	0	0-35	
1,1-Dichloroethene	99.12	92.59	93	90.72	92	50-150	33-167	2	0-35	
1,2-Dichloroethane	101.2	95.22	94	95.07	94	69-153	55-167	0	0-35	
1,4-Dioxane	90.09	80.44	89	81.02	90	50-150	33-167	1	0-35	
Hexane	88.12	74.98	85	75.16	85	50-150	33-167	0	0-35	
Methylene Chloride	86.84	78.44	90	78.18	90	50-150	33-167	0	0-35	
o-Xylene	108.6	90.24	83	90.21	83	52-148	36-164	0	0-38	
Tetrachloroethene	169.6	147.8	87	148.2	87	56-152	40-168	0	0-40	
Toluene	94.21	78.86	84	79.56	84	56-146	41-161	1	0-43	
Trichloroethene	134.3	121.5	90	121.8	91	63-159	47-175	0	0-34	
Trichlorofluoromethane	140.5	131.3	93	129.3	92	50-150	33-167	2	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	178.1	93	176.9	92	50-150	33-167	1	0-35	
1,1,1-Trichloroethane	136.4	127.6	94	127.6	94	50-150	33-167	0	0-35	
1,1,2-Trichloroethane	136.4	123.2	90	123.8	91	65-149	51-163	1	0-37	
Vinyl Chloride	63.91	58.34	91	57.82	90	45-177	23-199	1	0-36	
Isopropanol	61.45	54.38	88	54.23	88	50-150	33-167	0	0-35	

Total number of LCS compounds: 22
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 16-07-0258

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
OC_VGAC_EFF_SP242_070616	-29.50 in Hg	-1.20 in Hg	SLC093	Summa Canister 1L
OC_VGAC_INT_SP245_070616	-29.50 in Hg	-4.60 in Hg	LC290	Summa Canister 1L
OC_VGAC_INF_SP241_070616	-29.50 in Hg	-3.20 in Hg	LC281	Summa Canister 1L

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Sample Analysis Summary Report

Work Order: 16-07-0258

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-15	N/A	326	GC/MS K	2

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Glossary of Terms and Qualifiers

Work Order: 16-07-0258

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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: 7/6/16
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 - GWTS 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: 16-07-0258

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)
1	OC_VGAC_EFF_SP242_ 070616	SP-EFF-GAC	V	SLC093	1L	A485	7/6/16	1058	-30	7/6/16	1103	-5	X
2	OC_VGAC_INT_SP245_ 070616	SP-MID-GAC	V	LC290	1L	A155	"	1059	-30	"	1104	-5	X
3	OC_VGAC_INF_SP241_ 070616	SP-INF-GAC	V	LC281	1L	A245	"	1200 (67)	-30	"	1105	-5	X
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
7/6/16 1411		7/6/16	1411
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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WORK ORDER NUMBER: 16-07- 0258

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: DeMaximis

DATE: 07 / 06 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC1B (CF: 0.0°C); Temperature (w/o CF): _____°C (w/ CF): _____°C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☑ Air ☐ Filter Checked by: 836

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☐ Not Present	☑ N/A	Checked by: 836
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 836

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: _____)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB ☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s** ☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☑ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☑ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 836

Reviewed by: 6M.

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WORK ORDER NUMBER: 16-08-0224

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: de maximis, inc.

Client Project Name: Omega

Attention: Jamie Dinello
1322 Scott Street
Suite 104
San Diego, CA 92106-2727

Approved for release on 08/11/2016 by:
Stephen Nowak
Project Manager

ResultLink

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Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Narrative

Work Order: 16-08-0224 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/03/16. They were assigned to Work Order 16-08-0224.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order:	16-08-0224
		Project Name:	Omega
		PO Number:	GWTS GAC GL 6308
		Date/Time Received:	08/03/16 14:56
		Number of Containers:	3
Attn:	Jamie Dinello		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OC_VGAC_EFF_SP242_080316	16-08-0224-1	08/03/16 12:01	1	Air
OC_VGAC_INT_SP245_080316	16-08-0224-2	08/03/16 12:03	1	Air
OC_VGAC_INF_SP241_080316	16-08-0224-3	08/03/16 12:05	1	Air

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Detections Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order: Project Name: Received:	16-08-0224 Omega 08/03/16
Attn:	Jamie Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_080316 (16-08-0224-1)						
Chloroform	3.2		0.58	ppb (v/v)	EPA TO-15	N/A
Dichlorodifluoromethane	0.60		0.58	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethane	0.73		0.58	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	25		0.58	ppb (v/v)	EPA TO-15	N/A
o-Xylene	0.62		0.58	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	4.7		1.2	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	37		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INT_SP245_080316 (16-08-0224-2)						
2-Butanone	2.0		1.6	ppb (v/v)	EPA TO-15	N/A
Chloroform	6.5		0.54	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	14		0.54	ppb (v/v)	EPA TO-15	N/A
Hexane	2.2		2.2	ppb (v/v)	EPA TO-15	N/A
Methylene Chloride	10		5.4	ppb (v/v)	EPA TO-15	N/A
o-Xylene	0.60		0.54	ppb (v/v)	EPA TO-15	N/A
Toluene	0.62		0.54	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	2.5		1.1	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	12		1.6	ppb (v/v)	EPA TO-15	N/A
Isopropanol	14		5.4	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	67		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INF_SP241_080316 (16-08-0224-3)						
Chloroform	4.0		0.52	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	8.7		0.52	ppb (v/v)	EPA TO-15	N/A
1,2-Dichloroethane	1.1		0.52	ppb (v/v)	EPA TO-15	N/A
o-Xylene	0.74		0.52	ppb (v/v)	EPA TO-15	N/A
Tetrachloroethene	65		0.52	ppb (v/v)	EPA TO-15	N/A
Toluene	0.72		0.52	ppb (v/v)	EPA TO-15	N/A
Trichloroethene	5.0		0.52	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	2.3		1.0	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	8.1		1.5	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	100		10	ppb (v/v)	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Detections Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order: Project Name: Received:	16-08-0224 Omega 08/03/16
Attn:	Jamie Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_080316 (16-08-0224-1)						
Chloroform	16		2.9	ug/m3	EPA TO-15	N/A
Dichlorodifluoromethane	3.0		2.9	ug/m3	EPA TO-15	N/A
1,1-Dichloroethane	2.9		2.4	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	100		2.3	ug/m3	EPA TO-15	N/A
o-Xylene	2.7		2.5	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	26		6.6	ug/m3	EPA TO-15	N/A
OC_VGAC_INT_SP245_080316 (16-08-0224-2)						
2-Butanone	5.8		4.8	ug/m3	EPA TO-15	N/A
Chloroform	32		2.6	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	57		2.1	ug/m3	EPA TO-15	N/A
Hexane	7.9		7.6	ug/m3	EPA TO-15	N/A
Methylene Chloride	36		19	ug/m3	EPA TO-15	N/A
o-Xylene	2.6		2.3	ug/m3	EPA TO-15	N/A
Toluene	2.3		2.0	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	14		6.1	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	95		12	ug/m3	EPA TO-15	N/A
Isopropanol	35		13	ug/m3	EPA TO-15	N/A
OC_VGAC_INF_SP241_080316 (16-08-0224-3)						
Chloroform	20		2.5	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	34		2.0	ug/m3	EPA TO-15	N/A
1,2-Dichloroethane	4.6		2.1	ug/m3	EPA TO-15	N/A
o-Xylene	3.2		2.2	ug/m3	EPA TO-15	N/A
Tetrachloroethene	440		3.5	ug/m3	EPA TO-15	N/A
Toluene	2.7		1.9	ug/m3	EPA TO-15	N/A
Trichloroethene	27		2.8	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	13		5.8	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	62		12	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_080316	**16-08-0224-1-A**	**08/03/16 12:01**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 03:29**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.58	1.17	
2-Butanone	ND	1.8	1.17	
Carbon Disulfide	ND	2.3	1.17	
Carbon Tetrachloride	ND	0.58	1.17	
Chloroform	3.2	0.58	1.17	
Dichlorodifluoromethane	0.60	0.58	1.17	
1,1-Dichloroethane	0.73	0.58	1.17	
1,1-Dichloroethene	25	0.58	1.17	
1,2-Dichloroethane	ND	0.58	1.17	
1,4-Dioxane	ND	12	1.17	
Hexane	ND	2.3	1.17	
Methylene Chloride	ND	5.8	1.17	
o-Xylene	0.62	0.58	1.17	
Tetrachloroethene	ND	0.58	1.17	
Toluene	ND	0.58	1.17	
Trichloroethene	ND	0.58	1.17	
Trichlorofluoromethane	4.7	1.2	1.17	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.8	1.17	
1,1,1-Trichloroethane	ND	0.58	1.17	
1,1,2-Trichloroethane	ND	0.58	1.17	
Vinyl Chloride	ND	0.58	1.17	
Isopropanol	ND	5.8	1.17	
Total Volatile Organic Compounds	37	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	57-129	
1,2-Dichloroethane-d4	126	47-137	
Toluene-d8	90	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_080316	**16-08-0224-2-A**	**08/03/16 12:03**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 02:34**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.54	1.08	
2-Butanone	2.0	1.6	1.08	
Carbon Disulfide	ND	2.2	1.08	
Carbon Tetrachloride	ND	0.54	1.08	
Chloroform	6.5	0.54	1.08	
Dichlorodifluoromethane	ND	0.54	1.08	
1,1-Dichloroethane	ND	0.54	1.08	
1,1-Dichloroethene	14	0.54	1.08	
1,2-Dichloroethane	ND	0.54	1.08	
1,4-Dioxane	ND	11	1.08	
Hexane	2.2	2.2	1.08	
Methylene Chloride	10	5.4	1.08	
o-Xylene	0.60	0.54	1.08	
Tetrachloroethene	ND	0.54	1.08	
Toluene	0.62	0.54	1.08	
Trichloroethene	ND	0.54	1.08	
Trichlorofluoromethane	2.5	1.1	1.08	
1,1,2-Trichloro-1,2,2-Trifluoroethane	12	1.6	1.08	
1,1,1-Trichloroethane	ND	0.54	1.08	
1,1,2-Trichloroethane	ND	0.54	1.08	
Vinyl Chloride	ND	0.54	1.08	
Isopropanol	14	5.4	1.08	
Total Volatile Organic Compounds	67	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	114	47-137	
Toluene-d8	94	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_080316	**16-08-0224-3-A**	**08/03/16 12:05**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 01:40**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.52	1.03	
2-Butanone	ND	1.5	1.03	
Carbon Disulfide	ND	2.1	1.03	
Carbon Tetrachloride	ND	0.52	1.03	
Chloroform	4.0	0.52	1.03	
Dichlorodifluoromethane	ND	0.52	1.03	
1,1-Dichloroethane	ND	0.52	1.03	
1,1-Dichloroethene	8.7	0.52	1.03	
1,2-Dichloroethane	1.1	0.52	1.03	
1,4-Dioxane	ND	10	1.03	
Hexane	ND	2.1	1.03	
Methylene Chloride	ND	5.2	1.03	
o-Xylene	0.74	0.52	1.03	
Tetrachloroethene	65	0.52	1.03	
Toluene	0.72	0.52	1.03	
Trichloroethene	5.0	0.52	1.03	
Trichlorofluoromethane	2.3	1.0	1.03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	8.1	1.5	1.03	
1,1,1-Trichloroethane	ND	0.52	1.03	
1,1,2-Trichloroethane	ND	0.52	1.03	
Vinyl Chloride	ND	0.52	1.03	
Isopropanol	ND	5.2	1.03	
Total Volatile Organic Compounds	100	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	57-129	
1,2-Dichloroethane-d4	109	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-223**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**08/06/16 13:47**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
2-Butanone	ND	1.5	1.00	
Carbon Disulfide	ND	2.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Dichlorodifluoromethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,4-Dioxane	ND	10	1.00	
Hexane	ND	2.0	1.00	
Methylene Chloride	ND	5.0	1.00	
o-Xylene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
Isopropanol	ND	5.0	1.00	
Total Volatile Organic Compounds	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	57-129	
1,2-Dichloroethane-d4	112	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_080316	**16-08-0224-1-A**	**08/03/16 12:01**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 03:29**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.9	1.17	
2-Butanone	ND	5.2	1.17	
Carbon Disulfide	ND	7.3	1.17	
Carbon Tetrachloride	ND	3.7	1.17	
Chloroform	16	2.9	1.17	
Dichlorodifluoromethane	3.0	2.9	1.17	
1,1-Dichloroethane	2.9	2.4	1.17	
1,1-Dichloroethene	100	2.3	1.17	
1,2-Dichloroethane	ND	2.4	1.17	
1,4-Dioxane	ND	42	1.17	
Hexane	ND	8.2	1.17	
Methylene Chloride	ND	20	1.17	
o-Xylene	2.7	2.5	1.17	
Tetrachloroethene	ND	4.0	1.17	
Toluene	ND	2.2	1.17	
Trichloroethene	ND	3.1	1.17	
Trichlorofluoromethane	26	6.6	1.17	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	13	1.17	
1,1,1-Trichloroethane	ND	3.2	1.17	
1,1,2-Trichloroethane	ND	3.2	1.17	
Vinyl Chloride	ND	1.5	1.17	
Isopropanol	ND	14	1.17	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	108	57-129	
1,2-Dichloroethane-d4	126	47-137	
Toluene-d8	90	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_080316	**16-08-0224-2-A**	**08/03/16 12:03**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 02:34**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.7	1.08	
2-Butanone	5.8	4.8	1.08	
Carbon Disulfide	ND	6.7	1.08	
Carbon Tetrachloride	ND	3.4	1.08	
Chloroform	32	2.6	1.08	
Dichlorodifluoromethane	ND	2.7	1.08	
1,1-Dichloroethane	ND	2.2	1.08	
1,1-Dichloroethene	57	2.1	1.08	
1,2-Dichloroethane	ND	2.2	1.08	
1,4-Dioxane	ND	39	1.08	
Hexane	7.9	7.6	1.08	
Methylene Chloride	36	19	1.08	
o-Xylene	2.6	2.3	1.08	
Tetrachloroethene	ND	3.7	1.08	
Toluene	2.3	2.0	1.08	
Trichloroethene	ND	2.9	1.08	
Trichlorofluoromethane	14	6.1	1.08	
1,1,2-Trichloro-1,2,2-Trifluoroethane	95	12	1.08	
1,1,1-Trichloroethane	ND	2.9	1.08	
1,1,2-Trichloroethane	ND	2.9	1.08	
Vinyl Chloride	ND	1.4	1.08	
Isopropanol	35	13	1.08	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	106	57-129	
1,2-Dichloroethane-d4	114	47-137	
Toluene-d8	94	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_080316	**16-08-0224-3-A**	**08/03/16 12:05**	**Air**	**GC/MS AA**	**N/A**	**08/07/16 01:40**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.6	1.03	
2-Butanone	ND	4.6	1.03	
Carbon Disulfide	ND	6.4	1.03	
Carbon Tetrachloride	ND	3.2	1.03	
Chloroform	20	2.5	1.03	
Dichlorodifluoromethane	ND	2.5	1.03	
1,1-Dichloroethane	ND	2.1	1.03	
1,1-Dichloroethene	34	2.0	1.03	
1,2-Dichloroethane	4.6	2.1	1.03	
1,4-Dioxane	ND	37	1.03	
Hexane	ND	7.3	1.03	
Methylene Chloride	ND	18	1.03	
o-Xylene	3.2	2.2	1.03	
Tetrachloroethene	440	3.5	1.03	
Toluene	2.7	1.9	1.03	
Trichloroethene	27	2.8	1.03	
Trichlorofluoromethane	13	5.8	1.03	
1,1,2-Trichloro-1,2,2-Trifluoroethane	62	12	1.03	
1,1,1-Trichloroethane	ND	2.8	1.03	
1,1,2-Trichloroethane	ND	2.8	1.03	
Vinyl Chloride	ND	1.3	1.03	
Isopropanol	ND	13	1.03	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	57-129	
1,2-Dichloroethane-d4	109	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	08/03/16
1322 Scott Street, Suite 104		Work Order:	16-08-0224
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-223**	**N/A**	**Air**	**GC/MS AA**	**N/A**	**08/06/16 13:47**	**160806L01**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.6	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chloroform	ND	2.4	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,4-Dioxane	ND	36	1.00	
Hexane	ND	7.0	1.00	
Methylene Chloride	ND	17	1.00	
o-Xylene	ND	2.2	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	
Isopropanol	ND	12	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	100	57-129	
1,2-Dichloroethane-d4	112	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

de maximis, inc.
1322 Scott Street, Suite 104
San Diego, CA 92106-2727

Project: Omega

Date Received:	08/03/16
Work Order:	16-08-0224
Preparation:	N/A
Method:	EPA TO-15

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-608-223	**LCS**	**Air**	**GC/MS AA**	**N/A**	**08/06/16 11:11**	**160806L01**
099-15-608-223	**LCSD**	**Air**	**GC/MS AA**	**N/A**	**08/06/16 12:00**	**160806L01**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	79.39	99	80.57	101	60-156	44-172	1	0-40	
2-Butanone	73.73	74.56	101	76.14	103	50-150	33-167	2	0-35	
Carbon Disulfide	77.85	86.53	111	92.61	119	50-150	33-167	7	0-35	
Carbon Tetrachloride	157.3	185.3	118	182.7	116	64-154	49-169	1	0-32	
Chloroform	122.1	127.4	104	128.5	105	50-150	33-167	1	0-35	
Dichlorodifluoromethane	123.6	135.8	110	134.9	109	50-150	33-167	1	0-35	
1,1-Dichloroethane	101.2	103.4	102	104.7	103	50-150	33-167	1	0-35	
1,1-Dichloroethene	99.12	109.3	110	110.3	111	50-150	33-167	1	0-35	
1,2-Dichloroethane	101.2	114.1	113	113.9	113	69-153	55-167	0	0-35	
1,4-Dioxane	90.09	82.76	92	84.59	94	50-150	33-167	2	0-35	
Hexane	88.12	88.46	100	89.11	101	50-150	33-167	1	0-35	
Methylene Chloride	86.84	90.23	104	92.57	107	50-150	33-167	3	0-35	
o-Xylene	108.6	109.6	101	109.0	100	52-148	36-164	1	0-38	
Tetrachloroethene	169.6	175.9	104	178.4	105	56-152	40-168	1	0-40	
Toluene	94.21	90.60	96	92.59	98	56-146	41-161	2	0-43	
Trichloroethene	134.3	142.4	106	143.5	107	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	146.8	104	144.7	103	50-150	33-167	1	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	227.9	119	249.9	130	50-150	33-167	9	0-35	
1,1,1-Trichloroethane	136.4	147.0	108	149.5	110	50-150	33-167	2	0-35	
1,1,2-Trichloroethane	136.4	142.1	104	146.5	107	65-149	51-163	3	0-37	
Vinyl Chloride	63.91	67.16	105	68.29	107	45-177	23-199	2	0-36	
Isopropanol	61.45	55.02	90	52.46	85	50-150	33-167	5	0-35	

Total number of LCS compounds: 22
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 16-08-0224

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
OC_VGAC_EFF_SP242_080316	-29.50 in Hg	-5.00 in Hg	LC623	Summa Canister 1L
OC_VGAC_INT_SP245_080316	-29.50 in Hg	-5.00 in Hg	LC339	Summa Canister 1L
OC_VGAC_INF_SP241_080316	-29.50 in Hg	-2.50 in Hg	LC961	Summa Canister 1L

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Glossary of Terms and Qualifiers

Work Order: 16-08-0224

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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: 8/3/16
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 - GWTS 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 JOB NO.: 16-08-0224

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)				
1	OC_VGAC_EFF_SP242_080316	SP-EFF-GAC	SV	LC263	1L	A107	8/3/16	1156	-30	8/3/16	1201	-5	X				
2	OC_VGAC_INT_SP245_080316	SP-MID-GAC	V	LC339	1L	A429	"	1158	-30	"	1203	-5	X				
3	OC_VGAC_INF_SP241_080316	SP-INF-GAC	V	LC961	1L	A172	"	1200	-30	"	1205	-5	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
8/3/16 1456	ECI	080316	1456.
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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WORK ORDER NUMBER: 16-08- 0224

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: de maximis

DATE: 08 / 3 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): _____°C (w/ CF): _____°C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter — Checked by: 681

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 681
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1053

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☐	☑	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: _____)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☑ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1053

Reviewed by: 300

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WORK ORDER NUMBER: 16-08- 0224

SAMPLE ANOMALY REPORT

DATE: 08 / 03 / 2016

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☑ Client sample label(s) do not match COC (comment)
  - ☐ Project information
  - ☑ Canister ID
  - ☐ Client sample ID
  - ☐ Sampling date and/or time
  - ☐ Number of container(s)
  - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
  - ☐ Broken
  - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (not transferred; duplicate bag submitted)
  - ☐ Leaking (transferred into ECI Tedlar™ bags*)
  - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

H) received LC623 instead of L363. (Sample ID, date and time all matched)

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

Reported by: 1053

Reviewed by: 778

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

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WORK ORDER NUMBER: 16-09-0408

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: de maximis, inc.

Client Project Name: Omega

Attention: Jaime Dinello
1322 Scott Street
Suite 104
San Diego, CA 92106-2727

Approved for release on 09/15/2016 by:
Stephen Nowak
Project Manager

ResultLink

Email your PM

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order Narrative

Work Order: 16-09-0408 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/07/16. They were assigned to Work Order 16-09-0408.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order:	16-09-0408
		Project Name:	Omega
		PO Number:	GWTS GAC GL 6308
		Date/Time Received:	09/07/16 16:27
		Number of Containers:	3
Attn:	Jaime Dinello		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OC_VGAC_EFF_SP242_090716	16-09-0408-1	09/07/16 10:36	1	Air
OC_VGAC_INT_SP245_090716	16-09-0408-2	09/07/16 10:37	1	Air
OC_VGAC_INF_SP241_090716	16-09-0408-3	09/07/16 10:38	1	Air

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Detections Summary

Client:	de maximis, inc. 1322 Scott Street, Suite 104 San Diego, CA 92106-2727	Work Order: Project Name: Received:	16-09-0408 Omega 09/07/16
Attn:	Jaime Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_090716 (16-09-0408-1)						
2-Butanone	3.0		2.0	ppb (v/v)	EPA TO-15	N/A
Chloroform	2.5		0.66	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	18		0.66	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	3.0		1.3	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	31		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INT_SP245_090716 (16-09-0408-2)						
Chloroform	6.1		0.61	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	12		0.61	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	2.2		1.2	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	15		1.8	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	38		10	ppb (v/v)	EPA TO-15	N/A
OC_VGAC_INF_SP241_090716 (16-09-0408-3)						
Chloroform	3.7		0.55	ppb (v/v)	EPA TO-15	N/A
1,1-Dichloroethene	8.2		0.55	ppb (v/v)	EPA TO-15	N/A
1,2-Dichloroethane	0.95		0.55	ppb (v/v)	EPA TO-15	N/A
Tetrachloroethene	64		0.55	ppb (v/v)	EPA TO-15	N/A
Toluene	0.80		0.55	ppb (v/v)	EPA TO-15	N/A
Trichloroethene	4.9		0.55	ppb (v/v)	EPA TO-15	N/A
Trichlorofluoromethane	2.4		1.1	ppb (v/v)	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	14		1.6	ppb (v/v)	EPA TO-15	N/A
Total Volatile Organic Compounds	100		10	ppb (v/v)	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Detections Summary

Client:	de maximis, inc.	Work Order:	16-09-0408
	1322 Scott Street, Suite 104	Project Name:	Omega
	San Diego, CA 92106-2727	Received:	09/07/16
Attn:	Jaime Dinello		

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
OC_VGAC_EFF_SP242_090716 (16-09-0408-1)						
2-Butanone	8.8		5.8	ug/m3	EPA TO-15	N/A
Chloroform	12		3.2	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	70		2.6	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	17		7.4	ug/m3	EPA TO-15	N/A
OC_VGAC_INT_SP245_090716 (16-09-0408-2)						
Chloroform	30		3.0	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	49		2.4	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	12		6.9	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	120		14	ug/m3	EPA TO-15	N/A
OC_VGAC_INF_SP241_090716 (16-09-0408-3)						
Chloroform	18		2.7	ug/m3	EPA TO-15	N/A
1,1-Dichloroethene	32		2.2	ug/m3	EPA TO-15	N/A
1,2-Dichloroethane	3.8		2.2	ug/m3	EPA TO-15	N/A
Tetrachloroethene	430		3.7	ug/m3	EPA TO-15	N/A
Toluene	3.0		2.1	ug/m3	EPA TO-15	N/A
Trichloroethene	26		3.0	ug/m3	EPA TO-15	N/A
Trichlorofluoromethane	13		6.2	ug/m3	EPA TO-15	N/A
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		13	ug/m3	EPA TO-15	N/A

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_090716	**16-09-0408-1-A**	**09/07/16 10:36**	**Air**	**GC/MS K**	**N/A**	**09/09/16 03:08**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.66	1.31	
2-Butanone	3.0	2.0	1.31	
Carbon Disulfide	ND	2.6	1.31	
Carbon Tetrachloride	ND	0.66	1.31	
Chloroform	2.5	0.66	1.31	
Dichlorodifluoromethane	ND	0.66	1.31	
1,1-Dichloroethane	ND	0.66	1.31	
1,1-Dichloroethene	18	0.66	1.31	
1,2-Dichloroethane	ND	0.66	1.31	
1,4-Dioxane	ND	13	1.31	
Hexane	ND	2.6	1.31	
Methylene Chloride	ND	6.6	1.31	
o-Xylene	ND	0.66	1.31	
Tetrachloroethene	ND	0.66	1.31	
Toluene	ND	0.66	1.31	
Trichloroethene	ND	0.66	1.31	
Trichlorofluoromethane	3.0	1.3	1.31	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2.0	1.31	
1,1,1-Trichloroethane	ND	0.66	1.31	
1,1,2-Trichloroethane	ND	0.66	1.31	
Vinyl Chloride	ND	0.66	1.31	
Isopropanol	ND	6.6	1.31	
Total Volatile Organic Compounds	31	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	57-129	
1,2-Dichloroethane-d4	98	47-137	
Toluene-d8	97	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_090716	**16-09-0408-2-A**	**09/07/16 10:37**	**Air**	**GC/MS K**	**N/A**	**09/09/16 04:05**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.61	1.22	
2-Butanone	ND	1.8	1.22	
Carbon Disulfide	ND	2.4	1.22	
Carbon Tetrachloride	ND	0.61	1.22	
Chloroform	6.1	0.61	1.22	
Dichlorodifluoromethane	ND	0.61	1.22	
1,1-Dichloroethane	ND	0.61	1.22	
1,1-Dichloroethene	12	0.61	1.22	
1,2-Dichloroethane	ND	0.61	1.22	
1,4-Dioxane	ND	12	1.22	
Hexane	ND	2.4	1.22	
Methylene Chloride	ND	6.1	1.22	
o-Xylene	ND	0.61	1.22	
Tetrachloroethene	ND	0.61	1.22	
Toluene	ND	0.61	1.22	
Trichloroethene	ND	0.61	1.22	
Trichlorofluoromethane	2.2	1.2	1.22	
1,1,2-Trichloro-1,2,2-Trifluoroethane	15	1.8	1.22	
1,1,1-Trichloroethane	ND	0.61	1.22	
1,1,2-Trichloroethane	ND	0.61	1.22	
Vinyl Chloride	ND	0.61	1.22	
Isopropanol	ND	6.1	1.22	
Total Volatile Organic Compounds	38	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	57-129	
1,2-Dichloroethane-d4	98	47-137	
Toluene-d8	96	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_090716	**16-09-0408-3-A**	**09/07/16 10:38**	**Air**	**GC/MS K**	**N/A**	**09/09/16 05:01**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.55	1.10	
2-Butanone	ND	1.6	1.10	
Carbon Disulfide	ND	2.2	1.10	
Carbon Tetrachloride	ND	0.55	1.10	
Chloroform	3.7	0.55	1.10	
Dichlorodifluoromethane	ND	0.55	1.10	
1,1-Dichloroethane	ND	0.55	1.10	
1,1-Dichloroethene	8.2	0.55	1.10	
1,2-Dichloroethane	0.95	0.55	1.10	
1,4-Dioxane	ND	11	1.10	
Hexane	ND	2.2	1.10	
Methylene Chloride	ND	5.5	1.10	
o-Xylene	ND	0.55	1.10	
Tetrachloroethene	64	0.55	1.10	
Toluene	0.80	0.55	1.10	
Trichloroethene	4.9	0.55	1.10	
Trichlorofluoromethane	2.4	1.1	1.10	
1,1,2-Trichloro-1,2,2-Trifluoroethane	14	1.6	1.10	
1,1,1-Trichloroethane	ND	0.55	1.10	
1,1,2-Trichloroethane	ND	0.55	1.10	
Vinyl Chloride	ND	0.55	1.10	
Isopropanol	ND	5.5	1.10	
Total Volatile Organic Compounds	100	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	57-129	
1,2-Dichloroethane-d4	97	47-137	
Toluene-d8	97	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ppb (v/v)
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-226**	**N/A**	**Air**	**GC/MS K**	**N/A**	**09/08/16 13:55**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	0.50	1.00	
2-Butanone	ND	1.5	1.00	
Carbon Disulfide	ND	2.0	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chloroform	ND	0.50	1.00	
Dichlorodifluoromethane	ND	0.50	1.00	
1,1-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	0.50	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,4-Dioxane	ND	10	1.00	
Hexane	ND	2.0	1.00	
Methylene Chloride	ND	5.0	1.00	
o-Xylene	ND	0.50	1.00	
Tetrachloroethene	ND	0.50	1.00	
Toluene	ND	0.50	1.00	
Trichloroethene	ND	0.50	1.00	
Trichlorofluoromethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.50	1.00	
1,1,2-Trichloroethane	ND	0.50	1.00	
Vinyl Chloride	ND	0.50	1.00	
Isopropanol	ND	5.0	1.00	
Total Volatile Organic Compounds	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	57-129	
1,2-Dichloroethane-d4	97	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_EFF_SP242_090716	**16-09-0408-1-A**	**09/07/16 10:36**	**Air**	**GC/MS K**	**N/A**	**09/09/16 03:08**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	2.1	1.31	
2-Butanone	8.8	5.8	1.31	
Carbon Disulfide	ND	8.2	1.31	
Carbon Tetrachloride	ND	4.1	1.31	
Chloroform	12	3.2	1.31	
Dichlorodifluoromethane	ND	3.2	1.31	
1,1-Dichloroethane	ND	2.7	1.31	
1,1-Dichloroethene	70	2.6	1.31	
1,2-Dichloroethane	ND	2.7	1.31	
1,4-Dioxane	ND	47	1.31	
Hexane	ND	9.2	1.31	
Methylene Chloride	ND	23	1.31	
o-Xylene	ND	2.8	1.31	
Tetrachloroethene	ND	4.4	1.31	
Toluene	ND	2.5	1.31	
Trichloroethene	ND	3.5	1.31	
Trichlorofluoromethane	17	7.4	1.31	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	15	1.31	
1,1,1-Trichloroethane	ND	3.6	1.31	
1,1,2-Trichloroethane	ND	3.6	1.31	
Vinyl Chloride	ND	1.7	1.31	
Isopropanol	ND	16	1.31	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	104	57-129	
1,2-Dichloroethane-d4	98	47-137	
Toluene-d8	97	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INT_SP245_090716	**16-09-0408-2-A**	**09/07/16 10:37**	**Air**	**GC/MS K**	**N/A**	**09/09/16 04:05**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.9	1.22	
2-Butanone	ND	5.4	1.22	
Carbon Disulfide	ND	7.6	1.22	
Carbon Tetrachloride	ND	3.8	1.22	
Chloroform	30	3.0	1.22	
Dichlorodifluoromethane	ND	3.0	1.22	
1,1-Dichloroethane	ND	2.5	1.22	
1,1-Dichloroethene	49	2.4	1.22	
1,2-Dichloroethane	ND	2.5	1.22	
1,4-Dioxane	ND	44	1.22	
Hexane	ND	8.6	1.22	
Methylene Chloride	ND	21	1.22	
o-Xylene	ND	2.6	1.22	
Tetrachloroethene	ND	4.1	1.22	
Toluene	ND	2.3	1.22	
Trichloroethene	ND	3.3	1.22	
Trichlorofluoromethane	12	6.9	1.22	
1,1,2-Trichloro-1,2,2-Trifluoroethane	120	14	1.22	
1,1,1-Trichloroethane	ND	3.3	1.22	
1,1,2-Trichloroethane	ND	3.3	1.22	
Vinyl Chloride	ND	1.6	1.22	
Isopropanol	ND	15	1.22	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	103	57-129	
1,2-Dichloroethane-d4	98	47-137	
Toluene-d8	96	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OC_VGAC_INF_SP241_090716	**16-09-0408-3-A**	**09/07/16 10:38**	**Air**	**GC/MS K**	**N/A**	**09/09/16 05:01**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.8	1.10	
2-Butanone	ND	4.9	1.10	
Carbon Disulfide	ND	6.9	1.10	
Carbon Tetrachloride	ND	3.5	1.10	
Chloroform	18	2.7	1.10	
Dichlorodifluoromethane	ND	2.7	1.10	
1,1-Dichloroethane	ND	2.2	1.10	
1,1-Dichloroethene	32	2.2	1.10	
1,2-Dichloroethane	3.8	2.2	1.10	
1,4-Dioxane	ND	40	1.10	
Hexane	ND	7.8	1.10	
Methylene Chloride	ND	19	1.10	
o-Xylene	ND	2.4	1.10	
Tetrachloroethene	430	3.7	1.10	
Toluene	3.0	2.1	1.10	
Trichloroethene	26	3.0	1.10	
Trichlorofluoromethane	13	6.2	1.10	
1,1,2-Trichloro-1,2,2-Trifluoroethane	110	13	1.10	
1,1,1-Trichloroethane	ND	3.0	1.10	
1,1,2-Trichloroethane	ND	3.0	1.10	
Vinyl Chloride	ND	1.4	1.10	
Isopropanol	ND	14	1.10	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	105	57-129	
1,2-Dichloroethane-d4	97	47-137	
Toluene-d8	97	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: Omega			Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-15-608-226**	**N/A**	**Air**	**GC/MS K**	**N/A**	**09/08/16 13:55**	**160908L03**

Parameter	Result	RL	DF	Qualifiers
Benzene	ND	1.6	1.00	
2-Butanone	ND	4.4	1.00	
Carbon Disulfide	ND	6.2	1.00	
Carbon Tetrachloride	ND	3.1	1.00	
Chloroform	ND	2.4	1.00	
Dichlorodifluoromethane	ND	2.5	1.00	
1,1-Dichloroethane	ND	2.0	1.00	
1,1-Dichloroethene	ND	2.0	1.00	
1,2-Dichloroethane	ND	2.0	1.00	
1,4-Dioxane	ND	36	1.00	
Hexane	ND	7.0	1.00	
Methylene Chloride	ND	17	1.00	
o-Xylene	ND	2.2	1.00	
Tetrachloroethene	ND	3.4	1.00	
Toluene	ND	1.9	1.00	
Trichloroethene	ND	2.7	1.00	
Trichlorofluoromethane	ND	5.6	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1.00	
1,1,1-Trichloroethane	ND	2.7	1.00	
1,1,2-Trichloroethane	ND	2.7	1.00	
Vinyl Chloride	ND	1.3	1.00	
Isopropanol	ND	12	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	57-129	
1,2-Dichloroethane-d4	97	47-137	
Toluene-d8	95	78-156	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

de maximis, inc.		Date Received:	09/07/16
1322 Scott Street, Suite 104		Work Order:	16-09-0408
San Diego, CA 92106-2727		Preparation:	N/A
		Method:	EPA TO-15
Project: Omega			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-608-226	**LCS**	**Air**	**GC/MS K**	**N/A**	**09/08/16 11:11**	**160908L03**
099-15-608-226	**LCSD**	**Air**	**GC/MS K**	**N/A**	**09/08/16 12:02**	**160908L03**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	79.87	73.66	92	72.95	91	60-156	44-172	1	0-40	
2-Butanone	73.73	61.73	84	63.10	86	50-150	33-167	2	0-35	
Carbon Disulfide	77.85	75.58	97	73.22	94	50-150	33-167	3	0-35	
Carbon Tetrachloride	157.3	147.3	94	146.1	93	64-154	49-169	1	0-32	
Chloroform	122.1	107.5	88	106.0	87	50-150	33-167	1	0-35	
Dichlorodifluoromethane	123.6	112.1	91	107.7	87	50-150	33-167	4	0-35	
1,1-Dichloroethane	101.2	94.59	93	94.35	93	50-150	33-167	0	0-35	
1,1-Dichloroethene	99.12	89.52	90	86.85	88	50-150	33-167	3	0-35	
1,2-Dichloroethane	101.2	87.89	87	87.88	87	69-153	55-167	0	0-35	
1,4-Dioxane	90.09	86.20	96	86.36	96	50-150	33-167	0	0-35	
Hexane	88.12	75.79	86	74.63	85	50-150	33-167	2	0-35	
Methylene Chloride	86.84	77.16	89	75.04	86	50-150	33-167	3	0-35	
o-Xylene	108.6	102.4	94	100.9	93	52-148	36-164	1	0-38	
Tetrachloroethene	169.6	170.4	100	170.0	100	56-152	40-168	0	0-40	
Toluene	94.21	86.35	92	86.63	92	56-146	41-161	0	0-43	
Trichloroethene	134.3	129.9	97	128.6	96	63-159	47-175	1	0-34	
Trichlorofluoromethane	140.5	122.3	87	117.1	83	50-150	33-167	4	0-35	
1,1,2-Trichloro-1,2,2-Trifluoroethane	191.6	177.0	92	169.3	88	50-150	33-167	4	0-35	
1,1,1-Trichloroethane	136.4	125.6	92	124.9	92	50-150	33-167	1	0-35	
1,1,2-Trichloroethane	136.4	130.8	96	129.5	95	65-149	51-163	1	0-37	
Vinyl Chloride	63.91	59.78	94	58.23	91	45-177	23-199	3	0-36	
Isopropanol	61.45	52.67	86	51.80	84	50-150	33-167	2	0-35	

Total number of LCS compounds: 22
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

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Summa Canister Vacuum Summary

Work Order: 16-09-0408

Sample Name	Vacuum Out	Vacuum In	Equipment	Description
OC_VGAC_EFF_SP242_090716	-29.50 in Hg	-5.00 in Hg	LC968	Summa Canister 1L
OC_VGAC_INT_SP245_090716	-29.50 in Hg	-4.00 in Hg	SLC057	Summa Canister 1L
OC_VGAC_INF_SP241_090716	-29.50 in Hg	-5.00 in Hg	LC819	Summa Canister 1L

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Sample Analysis Summary Report

Work Order: 16-09-0408

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA TO-15	N/A	884	GC/MS K	2

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Glossary of Terms and Qualifiers

Work Order: 16-09-0408

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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: 9/7/16
PAGE: 1 OF 1

LABORATORY CLIENT: de maximis	CLIENT PROJECT NAME / NUMBER: Omega - GWTS Monthly GAC
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 [signature]
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) ☑ EDD	
SPECIAL INSTRUCTIONS:	

P.O. NO.:
LAB CONTACT OR QUOTE NO.:
LAB USE ONLY: 16-09-0408

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)				
1	OC_VGAC_EFF_SP242_090716	SP-EFF-GAC	V	LC968	1L	A255	9/7/16	1031	-30	9/7/16	1036	-5	X				
2	OC_VGAC_INT_SP245_090716	SP-MID-GAC	V	SLC057	1L	A289	"	1032	-30	"	1037	-5	X				
3	OC_VGAC_INF_SP241_090716	SP-INF-GAC	V	LC819	1L	A368	"	1033	-30	"	1038	-5	X				
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: (Signature) [signature] 9/7/16 1627	Received by: (Signature) Danny G [signature]	Date: 9/7/16	Time: 16:27
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

eurofins | Calscience

WORK ORDER NUMBER: 16-09- 0408

SAMPLE RECEIPT CHECKLIST

COOLER 0 OF 0

CLIENT: de maximis

DATE: 09 / 07 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2A (CF: 0.0°C); Temperature (w/o CF): _____°C (w/ CF): _____°C; ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☑ Air ☐ Filter — Checked by: 659

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☐ Not Present ☑ N/A — Checked by: 659

Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☑ Not Present ☐ N/A — Checked by: 806

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: _____)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na₂** ☐ 100PJ ☐ 100PJ**na₂** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB

☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s**

☐ 500PB ☐ 1AGB ☐ 1AGB**na₂** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ _____ ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☑ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____): ☐ _____ ☐ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na₂** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = Zn $(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 806

Reviewed by: 659

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: 440-151983-1
Client Project/Site: Omega Chemical - ISCO/Composite & Grab

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Pamela Henriksen

Authorized for release by:
7/13/2016 4:22:26 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-151983-1	OC_SP220B_EFF_070616	Water	07/06/16 10:45	07/07/16 18:00
440-151983-2	OC_SP210_INF_070616	Water	07/06/16 10:55	07/07/16 18:00
440-151983-3	OC_TB_070616	Water	07/06/16 10:30	07/07/16 18:00

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Job ID: 440-151983-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-151983-1

Comments
No additional comments.

Receipt
The samples were received on 7/7/2016 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6º C.

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-341080 and analytical batch 440-341496. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: OC_SP220B_EFF_070616 (440-151983-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_SP220B_EFF_070616

Lab Sample ID: 440-151983-1

Date Collected: 07/06/16 10:45
Matrix: Water
Date Received: 07/07/16 18:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			07/08/16 17:44	1
Benzene	ND		0.50	0.25	ug/L			07/08/16 17:44	1
Bromobenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Bromoform	ND		1.0	0.40	ug/L			07/08/16 17:44	1
Bromomethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/08/16 17:44	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Chloroethane	ND		1.0	0.40	ug/L			07/08/16 17:44	1
Chloroform	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Chloromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 17:44	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/08/16 17:44	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Dibromomethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/08/16 17:44	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/08/16 17:44	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/08/16 17:44	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/08/16 17:44	1
Naphthalene	ND		1.0	0.40	ug/L			07/08/16 17:44	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/08/16 17:44	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
o-Xylene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Styrene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Toluene	ND		1.0	0.25	ug/L			07/08/16 17:44	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_SP220B_EFF_070616

Lab Sample ID: 440-151983-1
Date Collected: 07/06/16 10:45
Matrix: Water
Date Received: 07/07/16 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 17:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 17:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 17:44	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Trichloroethene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/08/16 17:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 17:44	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/08/16 17:44	1
Isopropyl alcohol	ND		250	180	ug/L			07/08/16 17:44	1
Total Volatile Organic Compounds	ND		150	75	ug/L			07/08/16 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*07/08/16 17:44*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*07/08/16 17:44*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*07/08/16 17:44*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**33**		4.8	0.95	ug/L		07/08/16 10:19	07/11/16 18:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*56*		*36 - 90*	*07/08/16 10:19*	*07/11/16 18:19*	*10*

Client Sample ID: OC_SP210_INF_070616

Lab Sample ID: 440-151983-2
Date Collected: 07/06/16 10:55
Matrix: Water
Date Received: 07/07/16 18:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			07/09/16 02:30	10
Benzene	ND		5.0	2.5	ug/L			07/09/16 02:30	10
Bromobenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Bromochloromethane	ND		10	2.5	ug/L			07/09/16 02:30	10
Bromodichloromethane	ND		10	2.5	ug/L			07/09/16 02:30	10
Bromoform	ND		10	4.0	ug/L			07/09/16 02:30	10
Bromomethane	ND		10	2.5	ug/L			07/09/16 02:30	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			07/09/16 02:30	10
Chlorobenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Chloroethane	ND		10	4.0	ug/L			07/09/16 02:30	10
Chloroform	**28**		10	2.5	ug/L			07/09/16 02:30	10
Chloromethane	ND		10	2.5	ug/L			07/09/16 02:30	10
2-Chlorotoluene	ND		10	2.5	ug/L			07/09/16 02:30	10
4-Chlorotoluene	ND		10	2.5	ug/L			07/09/16 02:30	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			07/09/16 02:30	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			07/09/16 02:30	10

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_SP210_INF_070616

Lab Sample ID: 440-151983-2
Date Collected: 07/06/16 10:55
Matrix: Water
Date Received: 07/07/16 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			07/09/16 02:30	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			07/09/16 02:30	10
Dibromomethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,2-Dichlorobenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Dichlorodifluoromethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,1-Dichloroethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,2-Dichloroethane	**7.5**	**J**	10	2.5	ug/L			07/09/16 02:30	10
1,1-Dichloroethene	**30**		10	2.5	ug/L			07/09/16 02:30	10
1,2-Dichloropropane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,3-Dichloropropane	ND		10	2.5	ug/L			07/09/16 02:30	10
2,2-Dichloropropane	ND		10	4.0	ug/L			07/09/16 02:30	10
1,1-Dichloropropene	ND		10	2.5	ug/L			07/09/16 02:30	10
Ethylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Hexachlorobutadiene	ND		10	2.5	ug/L			07/09/16 02:30	10
Isopropylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Methylene Chloride	ND		50	8.8	ug/L			07/09/16 02:30	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			07/09/16 02:30	10
m,p-Xylene	ND		10	5.0	ug/L			07/09/16 02:30	10
Naphthalene	ND		10	4.0	ug/L			07/09/16 02:30	10
n-Butylbenzene	ND		10	4.0	ug/L			07/09/16 02:30	10
N-Propylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
o-Xylene	ND		10	2.5	ug/L			07/09/16 02:30	10
p-Isopropyltoluene	ND		10	2.5	ug/L			07/09/16 02:30	10
sec-Butylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Styrene	ND		10	2.5	ug/L			07/09/16 02:30	10
tert-Butylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			07/09/16 02:30	10
Tetrachloroethene	**650**		10	2.5	ug/L			07/09/16 02:30	10
Toluene	ND		10	2.5	ug/L			07/09/16 02:30	10
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			07/09/16 02:30	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			07/09/16 02:30	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			07/09/16 02:30	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			07/09/16 02:30	10
1,1,1-Trichloroethane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			07/09/16 02:30	10
Trichloroethene	**32**		10	2.5	ug/L			07/09/16 02:30	10
Trichlorofluoromethane	**11**		10	2.5	ug/L			07/09/16 02:30	10
1,2,3-Trichloropropane	ND		10	2.5	ug/L			07/09/16 02:30	10
1,1,2-Trichloro-1,2,2-trifluoroethane	**74**		50	5.0	ug/L			07/09/16 02:30	10
1,2,4-Trimethylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			07/09/16 02:30	10
Vinyl chloride	ND		5.0	2.5	ug/L			07/09/16 02:30	10
Isopropyl alcohol	ND		2500	1800	ug/L			07/09/16 02:30	10
Total Volatile Organic Compounds	**830**	**J**	1500	750	ug/L			07/09/16 02:30	10

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_SP210_INF_070616

Lab Sample ID: 440-151983-2
Date Collected: 07/06/16 10:55
Matrix: Water
Date Received: 07/07/16 18:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*07/09/16 02:30*	*10*
Dibromofluoromethane (Surr)	*94*		*76 - 132*		*07/09/16 02:30*	*10*
Toluene-d8 (Surr)	*104*		*80 - 128*		*07/09/16 02:30*	*10*

Client Sample ID: OC_TB_070616

Lab Sample ID: 440-151983-3
Date Collected: 07/06/16 10:30
Matrix: Water
Date Received: 07/07/16 18:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			07/09/16 03:29	1
Benzene	ND		0.50	0.25	ug/L			07/09/16 03:29	1
Bromobenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Bromoform	ND		1.0	0.40	ug/L			07/09/16 03:29	1
Bromomethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/09/16 03:29	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Chloroethane	ND		1.0	0.40	ug/L			07/09/16 03:29	1
Chloroform	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Chloromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/09/16 03:29	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/09/16 03:29	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Dibromomethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/09/16 03:29	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/09/16 03:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/09/16 03:29	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/09/16 03:29	1
Naphthalene	ND		1.0	0.40	ug/L			07/09/16 03:29	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/09/16 03:29	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_TB_070616

Lab Sample ID: 440-151983-3
Date Collected: 07/06/16 10:30
Matrix: Water
Date Received: 07/07/16 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Styrene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Toluene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/09/16 03:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/09/16 03:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/09/16 03:29	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Trichloroethene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/09/16 03:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/09/16 03:29	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/09/16 03:29	1
Total Volatile Organic Compounds	**190**		150	75	ug/L			07/09/16 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*07/09/16 03:29*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*07/09/16 03:29*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*07/09/16 03:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			07/09/16 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*07/09/16 17:45*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*07/09/16 17:45*	*1*
Toluene-d8 (Surr)	*113*		*80 - 128*		*07/09/16 17:45*	*1*

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Client Sample ID: OC_SP220B_EFF_070616 — Lab Sample ID: 440-151983-1

Date Collected: 07/06/16 10:45 — **Matrix: Water**
Date Received: 07/07/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	341016	07/08/16 17:44	HR	TAL IRV
Total/NA	Prep	3520C			1050 mL	1 mL	341080	07/08/16 10:19	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		10	1050 mL	1 mL	341496	07/11/16 18:19	HN	TAL IRV

Client Sample ID: OC_SP210_INF_070616 — Lab Sample ID: 440-151983-2

Date Collected: 07/06/16 10:55 — **Matrix: Water**
Date Received: 07/07/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	341184	07/09/16 02:30	WK	TAL IRV

Client Sample ID: OC_TB_070616 — Lab Sample ID: 440-151983-3

Date Collected: 07/06/16 10:30 — **Matrix: Water**
Date Received: 07/07/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	341184	07/09/16 03:29	WK	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	341253	07/09/16 17:45	TCN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-341016/4
Matrix: Water
Analysis Batch: 341016

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			07/08/16 08:22	1
Benzene	ND		0.50	0.25	ug/L			07/08/16 08:22	1
Bromobenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Bromoform	ND		1.0	0.40	ug/L			07/08/16 08:22	1
Bromomethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/08/16 08:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Chloroethane	ND		1.0	0.40	ug/L			07/08/16 08:22	1
Chloroform	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Chloromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 08:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/08/16 08:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Dibromomethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/08/16 08:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/08/16 08:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/08/16 08:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/08/16 08:22	1
Naphthalene	ND		1.0	0.40	ug/L			07/08/16 08:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/08/16 08:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
o-Xylene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Styrene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/08/16 08:22	1

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

Lab Sample ID: MB 440-341016/4
Matrix: Water
Analysis Batch: 341016

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 08:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 08:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 08:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Trichloroethene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/08/16 08:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 08:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/08/16 08:22	1
Isopropyl alcohol	ND		250	180	ug/L			07/08/16 08:22	1
Total Volatile Organic Compounds	ND		150	75	ug/L			07/08/16 08:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*07/08/16 08:22*	*1*
Dibromofluoromethane (Surr)	*90*		*76 - 132*		*07/08/16 08:22*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*07/08/16 08:22*	*1*

Lab Sample ID: LCS 440-341016/5
Matrix: Water
Analysis Batch: 341016

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	25.5		ug/L		102	10 - 150
Benzene	25.0	23.9		ug/L		95	68 - 130
Bromobenzene	25.0	24.8		ug/L		99	70 - 130
Bromochloromethane	25.0	22.4		ug/L		89	70 - 130
Bromodichloromethane	25.0	22.8		ug/L		91	70 - 132
Bromoform	25.0	22.1		ug/L		88	60 - 148
Bromomethane	25.0	21.4		ug/L		86	64 - 139
Carbon tetrachloride	25.0	23.1		ug/L		92	60 - 150
Chlorobenzene	25.0	23.9		ug/L		95	70 - 130
Chloroethane	25.0	24.2		ug/L		97	64 - 135
Chloroform	25.0	23.2		ug/L		93	70 - 130
Chloromethane	25.0	25.8		ug/L		103	47 - 140
2-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
4-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
cis-1,2-Dichloroethene	25.0	22.9		ug/L		92	70 - 133
cis-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 133
Dibromochloromethane	25.0	22.2		ug/L		89	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.2		ug/L		101	70 - 130
Dibromomethane	25.0	22.9		ug/L		91	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130

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

Lab Sample ID: LCS 440-341016/5
Matrix: Water
Analysis Batch: 341016

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	22.1		ug/L		89	29 - 150
1,1-Dichloroethane	25.0	24.7		ug/L		99	64 - 130
1,2-Dichloroethane	25.0	23.4		ug/L		94	57 - 138
1,1-Dichloroethene	25.0	22.7		ug/L		91	70 - 130
1,2-Dichloropropane	25.0	26.3		ug/L		105	67 - 130
1,3-Dichloropropane	25.0	25.9		ug/L		104	70 - 130
2,2-Dichloropropane	25.0	24.6		ug/L		98	68 - 141
1,1-Dichloropropene	25.0	24.3		ug/L		97	70 - 130
Ethylbenzene	25.0	24.9		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	26.4		ug/L		106	10 - 150
Isopropylbenzene	25.0	25.1		ug/L		100	70 - 136
Methylene Chloride	25.0	23.1		ug/L		93	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	22.9		ug/L		91	63 - 131
m,p-Xylene	25.0	24.7		ug/L		99	70 - 130
Naphthalene	25.0	24.6		ug/L		98	60 - 140
n-Butylbenzene	25.0	27.8		ug/L		111	65 - 150
N-Propylbenzene	25.0	27.0		ug/L		108	67 - 139
o-Xylene	25.0	24.2		ug/L		97	70 - 130
p-Isopropyltoluene	25.0	26.6		ug/L		107	70 - 132
sec-Butylbenzene	25.0	26.3		ug/L		105	70 - 138
Styrene	25.0	23.7		ug/L		95	70 - 134
tert-Butylbenzene	25.0	25.6		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.6		ug/L		95	60 - 141
1,1,2,2-Tetrachloroethane	25.0	28.0		ug/L		112	63 - 130
Tetrachloroethene	25.0	24.5		ug/L		98	70 - 130
Toluene	25.0	25.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	23.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 132
1,2,3-Trichlorobenzene	25.0	25.1		ug/L		100	60 - 140
1,2,4-Trichlorobenzene	25.0	25.9		ug/L		104	60 - 140
1,1,1-Trichloroethane	25.0	22.9		ug/L		92	70 - 130
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	70 - 130
Trichloroethene	25.0	22.0		ug/L		88	70 - 130
Trichlorofluoromethane	25.0	24.0		ug/L		96	60 - 150
1,2,3-Trichloropropane	25.0	25.0		ug/L		100	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.0		ug/L		92	60 - 140
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 135
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 136
Vinyl chloride	25.0	24.7		ug/L		99	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*88*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

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

Lab Sample ID: 440-151970-D-3 MS
Matrix: Water
Analysis Batch: 341016

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	25.3		ug/L		101	10 - 150
Benzene	ND		25.0	24.6		ug/L		98	66 - 130
Bromobenzene	ND		25.0	25.3		ug/L		101	70 - 130
Bromochloromethane	ND		25.0	23.8		ug/L		95	70 - 130
Bromodichloromethane	ND		25.0	24.2		ug/L		97	70 - 138
Bromoform	ND		25.0	25.6		ug/L		102	59 - 150
Bromomethane	ND		25.0	23.1		ug/L		92	62 - 131
Carbon tetrachloride	ND		25.0	23.5		ug/L		94	60 - 150
Chlorobenzene	ND		25.0	24.6		ug/L		99	70 - 130
Chloroethane	ND		25.0	25.1		ug/L		101	68 - 130
Chloroform	ND		25.0	24.6		ug/L		98	70 - 130
Chloromethane	ND		25.0	27.6		ug/L		110	39 - 144
2-Chlorotoluene	ND		25.0	26.0		ug/L		104	70 - 130
4-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130
cis-1,2-Dichloroethene	ND		25.0	24.1		ug/L		97	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 133
Dibromochloromethane	ND		25.0	24.5		ug/L		98	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	27.1		ug/L		108	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.6		ug/L		106	70 - 131
Dibromomethane	ND		25.0	24.9		ug/L		99	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130
Dichlorodifluoromethane	ND		25.0	23.1		ug/L		92	25 - 142
1,1-Dichloroethane	ND		25.0	25.7		ug/L		103	65 - 130
1,2-Dichloroethane	ND		25.0	25.5		ug/L		102	56 - 146
1,1-Dichloroethene	ND		25.0	23.0		ug/L		92	70 - 130
1,2-Dichloropropane	ND		25.0	27.8		ug/L		111	69 - 130
1,3-Dichloropropane	ND		25.0	27.7		ug/L		111	70 - 130
2,2-Dichloropropane	ND		25.0	27.6		ug/L		110	69 - 138
1,1-Dichloropropene	ND		25.0	24.8		ug/L		99	64 - 130
Ethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130
Hexachlorobutadiene	ND		25.0	27.2		ug/L		109	10 - 150
Isopropylbenzene	ND		25.0	25.5		ug/L		102	70 - 132
Methylene Chloride	ND		25.0	25.0		ug/L		100	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.0		ug/L		100	70 - 130
m,p-Xylene	ND		25.0	24.8		ug/L		99	70 - 133
Naphthalene	ND		25.0	26.1		ug/L		104	60 - 140
n-Butylbenzene	ND		25.0	27.8		ug/L		111	61 - 149
N-Propylbenzene	ND		25.0	26.8		ug/L		107	66 - 135
o-Xylene	ND		25.0	25.0		ug/L		100	70 - 133
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	26.4		ug/L		106	67 - 134
Styrene	ND		25.0	24.7		ug/L		99	29 - 150
tert-Butylbenzene	ND		25.0	25.7		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	24.6		ug/L		98	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	29.4		ug/L		117	63 - 130
Tetrachloroethene	ND		25.0	24.5		ug/L		98	70 - 137

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

Lab Sample ID: 440-151970-D-3 MS
Matrix: Water
Analysis Batch: 341016

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	ND		25.0	25.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	ND		25.0	24.2		ug/L		97	70 - 130
trans-1,3-Dichloropropene	ND		25.0	26.9		ug/L		108	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	26.4		ug/L		106	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	26.7		ug/L		107	60 - 140
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		94	70 - 130
1,1,2-Trichloroethane	ND		25.0	27.2		ug/L		109	70 - 130
Trichloroethene	ND		25.0	22.6		ug/L		90	70 - 130
Trichlorofluoromethane	ND		25.0	24.7		ug/L		99	60 - 150
1,2,3-Trichloropropane	ND		25.0	27.1		ug/L		109	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.9		ug/L		96	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.9		ug/L		104	70 - 130
Vinyl chloride	ND		25.0	26.2		ug/L		105	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*90*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Lab Sample ID: 440-151970-D-3 MSD
Matrix: Water
Analysis Batch: 341016

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	25.1		ug/L		100	10 - 150	1	35
Benzene	ND		25.0	23.4		ug/L		93	66 - 130	5	20
Bromobenzene	ND		25.0	24.5		ug/L		98	70 - 130	3	20
Bromochloromethane	ND		25.0	22.6		ug/L		91	70 - 130	5	25
Bromodichloromethane	ND		25.0	23.1		ug/L		92	70 - 138	5	20
Bromoform	ND		25.0	23.0		ug/L		92	59 - 150	11	25
Bromomethane	ND		25.0	21.4		ug/L		85	62 - 131	8	25
Carbon tetrachloride	ND		25.0	22.2		ug/L		89	60 - 150	6	25
Chlorobenzene	ND		25.0	23.6		ug/L		94	70 - 130	4	20
Chloroethane	ND		25.0	24.0		ug/L		96	68 - 130	5	25
Chloroform	ND		25.0	23.1		ug/L		92	70 - 130	6	20
Chloromethane	ND		25.0	25.2		ug/L		101	39 - 144	9	25
2-Chlorotoluene	ND		25.0	25.0		ug/L		100	70 - 130	4	20
4-Chlorotoluene	ND		25.0	24.8		ug/L		99	70 - 130	6	20
cis-1,2-Dichloroethene	ND		25.0	22.3		ug/L		89	70 - 130	8	20
cis-1,3-Dichloropropene	ND		25.0	26.6		ug/L		106	70 - 133	4	20
Dibromochloromethane	ND		25.0	23.2		ug/L		93	70 - 148	6	25
1,2-Dibromo-3-Chloropropane	ND		25.0	26.2		ug/L		105	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	25.6		ug/L		102	70 - 131	4	25
Dibromomethane	ND		25.0	23.5		ug/L		94	70 - 130	6	25
1,2-Dichlorobenzene	ND		25.0	25.6		ug/L		102	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	25.2		ug/L		101	70 - 130	4	20

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

Lab Sample ID: 440-151970-D-3 MSD
Matrix: Water
Analysis Batch: 341016

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	4	20
Dichlorodifluoromethane	ND		25.0	21.4		ug/L		86	25 - 142	7	30
1,1-Dichloroethane	ND		25.0	24.4		ug/L		97	65 - 130	5	20
1,2-Dichloroethane	ND		25.0	23.9		ug/L		96	56 - 146	6	20
1,1-Dichloroethene	ND		25.0	21.5		ug/L		86	70 - 130	7	20
1,2-Dichloropropane	ND		25.0	26.5		ug/L		106	69 - 130	5	20
1,3-Dichloropropane	ND		25.0	26.5		ug/L		106	70 - 130	5	25
2,2-Dichloropropane	ND		25.0	24.3		ug/L		97	69 - 138	13	25
1,1-Dichloropropene	ND		25.0	23.5		ug/L		94	64 - 130	5	20
Ethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130	4	20
Hexachlorobutadiene	ND		25.0	25.9		ug/L		103	10 - 150	5	20
Isopropylbenzene	ND		25.0	24.2		ug/L		97	70 - 132	5	20
Methylene Chloride	ND		25.0	23.1		ug/L		93	52 - 130	8	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.8		ug/L		95	70 - 130	5	25
m,p-Xylene	ND		25.0	24.0		ug/L		96	70 - 133	3	25
Naphthalene	ND		25.0	25.0		ug/L		100	60 - 140	4	30
n-Butylbenzene	ND		25.0	26.8		ug/L		107	61 - 149	4	20
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135	3	20
o-Xylene	ND		25.0	23.8		ug/L		95	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	25.7		ug/L		103	70 - 130	4	20
sec-Butylbenzene	ND		25.0	25.6		ug/L		102	67 - 134	3	20
Styrene	ND		25.0	23.5		ug/L		94	29 - 150	5	35
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	4	20
1,1,1,2-Tetrachloroethane	ND		25.0	23.6		ug/L		94	60 - 149	4	20
1,1,2,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	63 - 130	4	30
Tetrachloroethene	ND		25.0	23.0		ug/L		92	70 - 137	6	20
Toluene	ND		25.0	24.5		ug/L		98	70 - 130	4	20
trans-1,2-Dichloroethene	ND		25.0	23.1		ug/L		92	70 - 130	5	20
trans-1,3-Dichloropropene	ND		25.0	25.7		ug/L		103	70 - 138	5	25
1,2,3-Trichlorobenzene	ND		25.0	25.3		ug/L		101	60 - 140	4	20
1,2,4-Trichlorobenzene	ND		25.0	25.8		ug/L		103	60 - 140	3	20
1,1,1-Trichloroethane	ND		25.0	22.1		ug/L		88	70 - 130	7	20
1,1,2-Trichloroethane	ND		25.0	25.9		ug/L		103	70 - 130	5	25
Trichloroethene	ND		25.0	21.3		ug/L		85	70 - 130	6	20
Trichlorofluoromethane	ND		25.0	23.2		ug/L		93	60 - 150	6	25
1,2,3-Trichloropropane	ND		25.0	25.4		ug/L		102	60 - 130	7	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.5		ug/L		90	60 - 140	6	20
1,2,4-Trimethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	5	25
1,3,5-Trimethylbenzene	ND		25.0	25.1		ug/L		100	70 - 130	3	20
Vinyl chloride	ND		25.0	24.3		ug/L		97	50 - 137	7	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*90*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

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

Lab Sample ID: MB 440-341184/4
Matrix: Water
Analysis Batch: 341184

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			07/08/16 19:37	1
Benzene	ND		0.50	0.25	ug/L			07/08/16 19:37	1
Bromobenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Bromochloromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Bromodichloromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Bromoform	ND		1.0	0.40	ug/L			07/08/16 19:37	1
Bromomethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			07/08/16 19:37	1
Chlorobenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Chloroethane	ND		1.0	0.40	ug/L			07/08/16 19:37	1
Chloroform	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Chloromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 19:37	1
Dibromochloromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			07/08/16 19:37	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Dibromomethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Dichlorodifluoromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			07/08/16 19:37	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Ethylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Isopropylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Methylene Chloride	ND		5.0	0.88	ug/L			07/08/16 19:37	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			07/08/16 19:37	1
m,p-Xylene	ND		1.0	0.50	ug/L			07/08/16 19:37	1
Naphthalene	ND		1.0	0.40	ug/L			07/08/16 19:37	1
n-Butylbenzene	ND		1.0	0.40	ug/L			07/08/16 19:37	1
N-Propylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
o-Xylene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Styrene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Tetrachloroethene	ND		1.0	0.25	ug/L			07/08/16 19:37	1

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

Lab Sample ID: MB 440-341184/4
Matrix: Water
Analysis Batch: 341184

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			07/08/16 19:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 19:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			07/08/16 19:37	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Trichloroethene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,2,3-Trichloropropane	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			07/08/16 19:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			07/08/16 19:37	1
Vinyl chloride	ND		0.50	0.25	ug/L			07/08/16 19:37	1
Isopropyl alcohol	ND		250	180	ug/L			07/08/16 19:37	1
Total Volatile Organic Compounds	ND		150	75	ug/L			07/08/16 19:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*07/08/16 19:37*	*1*
Dibromofluoromethane (Surr)	*90*		*76 - 132*		*07/08/16 19:37*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*07/08/16 19:37*	*1*

Lab Sample ID: LCS 440-341184/26
Matrix: Water
Analysis Batch: 341184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	255		ug/L		102	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: LCS 440-341184/5
Matrix: Water
Analysis Batch: 341184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	26.1		ug/L		104	10 - 150
Benzene	25.0	24.5		ug/L		98	68 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Bromochloromethane	25.0	23.0		ug/L		92	70 - 130
Bromodichloromethane	25.0	23.5		ug/L		94	70 - 132
Bromoform	25.0	22.8		ug/L		91	60 - 148
Bromomethane	25.0	22.2		ug/L		89	64 - 139
Carbon tetrachloride	25.0	23.3		ug/L		93	60 - 150
Chlorobenzene	25.0	25.1		ug/L		100	70 - 130

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

Lab Sample ID: LCS 440-341184/5
Matrix: Water
Analysis Batch: 341184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	25.0	24.7		ug/L		99	64 - 135
Chloroform	25.0	23.9		ug/L		96	70 - 130
Chloromethane	25.0	27.4		ug/L		110	47 - 140
2-Chlorotoluene	25.0	25.9		ug/L		104	70 - 130
4-Chlorotoluene	25.0	26.1		ug/L		105	70 - 130
cis-1,2-Dichloroethene	25.0	23.3		ug/L		93	70 - 133
cis-1,3-Dichloropropene	25.0	27.5		ug/L		110	70 - 133
Dibromochloromethane	25.0	23.4		ug/L		93	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	26.4		ug/L		106	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.9		ug/L		104	70 - 130
Dibromomethane	25.0	23.5		ug/L		94	70 - 130
1,2-Dichlorobenzene	25.0	26.4		ug/L		105	70 - 130
1,3-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	22.9		ug/L		92	29 - 150
1,1-Dichloroethane	25.0	25.6		ug/L		102	64 - 130
1,2-Dichloroethane	25.0	24.4		ug/L		97	57 - 138
1,1-Dichloroethene	25.0	22.7		ug/L		91	70 - 130
1,2-Dichloropropane	25.0	27.3		ug/L		109	67 - 130
1,3-Dichloropropane	25.0	27.1		ug/L		108	70 - 130
2,2-Dichloropropane	25.0	24.8		ug/L		99	68 - 141
1,1-Dichloropropene	25.0	24.5		ug/L		98	70 - 130
Ethylbenzene	25.0	26.0		ug/L		104	70 - 130
Hexachlorobutadiene	25.0	27.0		ug/L		108	10 - 150
Isopropylbenzene	25.0	26.1		ug/L		104	70 - 136
Methylene Chloride	25.0	24.0		ug/L		96	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	23.5		ug/L		94	63 - 131
m,p-Xylene	25.0	25.5		ug/L		102	70 - 130
Naphthalene	25.0	25.3		ug/L		101	60 - 140
n-Butylbenzene	25.0	27.8		ug/L		111	65 - 150
N-Propylbenzene	25.0	27.2		ug/L		109	67 - 139
o-Xylene	25.0	25.5		ug/L		102	70 - 130
p-Isopropyltoluene	25.0	26.8		ug/L		107	70 - 132
sec-Butylbenzene	25.0	26.5		ug/L		106	70 - 138
Styrene	25.0	24.7		ug/L		99	70 - 134
tert-Butylbenzene	25.0	26.0		ug/L		104	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	60 - 141
1,1,2,2-Tetrachloroethane	25.0	27.5		ug/L		110	63 - 130
Tetrachloroethene	25.0	25.5		ug/L		102	70 - 130
Toluene	25.0	26.2		ug/L		105	70 - 130
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	26.1		ug/L		104	70 - 132
1,2,3-Trichlorobenzene	25.0	25.7		ug/L		103	60 - 140
1,2,4-Trichlorobenzene	25.0	26.2		ug/L		105	60 - 140
1,1,1-Trichloroethane	25.0	23.3		ug/L		93	70 - 130
1,1,2-Trichloroethane	25.0	26.9		ug/L		108	70 - 130
Trichloroethene	25.0	22.8		ug/L		91	70 - 130
Trichlorofluoromethane	25.0	24.5		ug/L		98	60 - 150

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

Lab Sample ID: LCS 440-341184/5
Matrix: Water
Analysis Batch: 341184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	25.2		ug/L		101	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.5		ug/L		94	60 - 140
1,2,4-Trimethylbenzene	25.0	25.9		ug/L		104	70 - 135
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 136
Vinyl chloride	25.0	26.0		ug/L		104	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*76 - 132*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: 440-151858-B-2 MS
Matrix: Water
Analysis Batch: 341184

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		5000	6420		ug/L		128	10 - 150
Benzene	ND		5000	4910		ug/L		98	66 - 130
Bromobenzene	ND		5000	4990		ug/L		100	70 - 130
Bromochloromethane	ND		5000	4550		ug/L		91	70 - 130
Bromodichloromethane	ND		5000	4740		ug/L		95	70 - 138
Bromoform	ND		5000	4830		ug/L		97	59 - 150
Bromomethane	ND		5000	4370		ug/L		87	62 - 131
Carbon tetrachloride	ND		5000	4740		ug/L		95	60 - 150
Chlorobenzene	ND		5000	4880		ug/L		98	70 - 130
Chloroethane	ND		5000	4910		ug/L		98	68 - 130
Chloroform	15000	F1	5000	18900		ug/L		73	70 - 130
Chloromethane	ND		5000	5280		ug/L		106	39 - 144
2-Chlorotoluene	ND		5000	5220		ug/L		104	70 - 130
4-Chlorotoluene	ND		5000	5260		ug/L		105	70 - 130
cis-1,2-Dichloroethene	ND		5000	4750		ug/L		95	70 - 130
cis-1,3-Dichloropropene	ND		5000	5460		ug/L		109	70 - 133
Dibromochloromethane	ND		5000	4790		ug/L		96	70 - 148
1,2-Dibromo-3-Chloropropane	ND		5000	5500		ug/L		110	48 - 140
1,2-Dibromoethane (EDB)	ND		5000	5090		ug/L		102	70 - 131
Dibromomethane	ND		5000	4730		ug/L		95	70 - 130
1,2-Dichlorobenzene	ND		5000	5200		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		5000	5160		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		5000	5080		ug/L		102	70 - 130
Dichlorodifluoromethane	ND		5000	4680		ug/L		94	25 - 142
1,1-Dichloroethane	ND		5000	5100		ug/L		102	65 - 130
1,2-Dichloroethane	ND		5000	4880		ug/L		98	56 - 146
1,1-Dichloroethene	140	J	5000	5510		ug/L		107	70 - 130
1,2-Dichloropropane	ND		5000	5430		ug/L		109	69 - 130
1,3-Dichloropropane	ND		5000	5170		ug/L		103	70 - 130
2,2-Dichloropropane	ND		5000	4960		ug/L		99	69 - 138
1,1-Dichloropropene	ND		5000	5010		ug/L		100	64 - 130

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

Lab Sample ID: 440-151858-B-2 MS
Matrix: Water
Analysis Batch: 341184

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		5000	5070		ug/L		101	70 - 130
Hexachlorobutadiene	ND		5000	5370		ug/L		107	10 - 150
Isopropylbenzene	ND		5000	5050		ug/L		101	70 - 132
Methylene Chloride	ND		5000	4770		ug/L		95	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		5000	4730		ug/L		95	70 - 130
m,p-Xylene	ND		5000	5010		ug/L		100	70 - 133
Naphthalene	ND		5000	4970		ug/L		99	60 - 140
n-Butylbenzene	ND		5000	5610		ug/L		112	61 - 149
N-Propylbenzene	ND		5000	5450		ug/L		109	66 - 135
o-Xylene	ND		5000	4910		ug/L		98	70 - 133
p-Isopropyltoluene	ND		5000	5400		ug/L		108	70 - 130
sec-Butylbenzene	ND		5000	5290		ug/L		106	67 - 134
Styrene	ND		5000	4880		ug/L		98	29 - 150
tert-Butylbenzene	ND		5000	5150		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		5000	4820		ug/L		96	60 - 149
1,1,2,2-Tetrachloroethane	ND		5000	5660		ug/L		113	63 - 130
Tetrachloroethene	ND		5000	4990		ug/L		100	70 - 137
Toluene	ND		5000	5070		ug/L		101	70 - 130
trans-1,2-Dichloroethene	ND		5000	4820		ug/L		96	70 - 130
trans-1,3-Dichloropropene	ND		5000	5330		ug/L		107	70 - 138
1,2,3-Trichlorobenzene	ND		5000	5090		ug/L		102	60 - 140
1,2,4-Trichlorobenzene	ND		5000	5300		ug/L		106	60 - 140
1,1,1-Trichloroethane	ND		5000	4660		ug/L		93	70 - 130
1,1,2-Trichloroethane	ND		5000	5120		ug/L		102	70 - 130
Trichloroethene	ND		5000	4480		ug/L		90	70 - 130
Trichlorofluoromethane	330		5000	5020		ug/L		94	60 - 150
1,2,3-Trichloropropane	ND		5000	5180		ug/L		104	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5000	4780		ug/L		96	60 - 140
1,2,4-Trimethylbenzene	ND		5000	5200		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	ND		5000	5200		ug/L		104	70 - 130
Vinyl chloride	ND		5000	4790		ug/L		96	50 - 137
Isopropyl alcohol	ND		50000	49500	J	ug/L		99	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: 440-151858-B-2 MSD
Matrix: Water
Analysis Batch: 341184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		5000	6550		ug/L		131	10 - 150	2	35
Benzene	ND		5000	4820		ug/L		96	66 - 130	2	20
Bromobenzene	ND		5000	5050		ug/L		101	70 - 130	1	20
Bromochloromethane	ND		5000	4570		ug/L		91	70 - 130	1	25

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

Lab Sample ID: 440-151858-B-2 MSD
Matrix: Water
Analysis Batch: 341184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromodichloromethane	ND		5000	4870		ug/L		97	70 - 138	3	20
Bromoform	ND		5000	4920		ug/L		98	59 - 150	2	25
Bromomethane	ND		5000	4400		ug/L		88	62 - 131	1	25
Carbon tetrachloride	ND		5000	4650		ug/L		93	60 - 150	2	25
Chlorobenzene	ND		5000	4810		ug/L		96	70 - 130	1	20
Chloroethane	ND		5000	4900		ug/L		98	68 - 130	0	25
Chloroform	15000	F1	5000	18500	F1	ug/L		66	70 - 130	2	20
Chloromethane	ND		5000	5200		ug/L		104	39 - 144	1	25
2-Chlorotoluene	ND		5000	5290		ug/L		106	70 - 130	1	20
4-Chlorotoluene	ND		5000	5320		ug/L		106	70 - 130	1	20
cis-1,2-Dichloroethene	ND		5000	4710		ug/L		94	70 - 130	1	20
cis-1,3-Dichloropropene	ND		5000	5530		ug/L		111	70 - 133	1	20
Dibromochloromethane	ND		5000	4760		ug/L		95	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		5000	5490		ug/L		110	48 - 140	0	30
1,2-Dibromoethane (EDB)	ND		5000	5080		ug/L		102	70 - 131	0	25
Dibromomethane	ND		5000	4680		ug/L		94	70 - 130	1	25
1,2-Dichlorobenzene	ND		5000	5290		ug/L		106	70 - 130	2	20
1,3-Dichlorobenzene	ND		5000	5200		ug/L		104	70 - 130	1	20
1,4-Dichlorobenzene	ND		5000	5100		ug/L		102	70 - 130	0	20
Dichlorodifluoromethane	ND		5000	4670		ug/L		93	25 - 142	0	30
1,1-Dichloroethane	ND		5000	5050		ug/L		101	65 - 130	1	20
1,2-Dichloroethane	ND		5000	4830		ug/L		97	56 - 146	1	20
1,1-Dichloroethene	140	J	5000	5620		ug/L		110	70 - 130	2	20
1,2-Dichloropropane	ND		5000	5430		ug/L		109	69 - 130	0	20
1,3-Dichloropropane	ND		5000	5230		ug/L		105	70 - 130	1	25
2,2-Dichloropropane	ND		5000	4800		ug/L		96	69 - 138	3	25
1,1-Dichloropropene	ND		5000	4950		ug/L		99	64 - 130	1	20
Ethylbenzene	ND		5000	5050		ug/L		101	70 - 130	0	20
Hexachlorobutadiene	ND		5000	5420		ug/L		108	10 - 150	1	20
Isopropylbenzene	ND		5000	5020		ug/L		100	70 - 132	1	20
Methylene Chloride	ND		5000	4760		ug/L		95	52 - 130	0	20
Methyl-t-Butyl Ether (MTBE)	ND		5000	4740		ug/L		95	70 - 130	0	25
m,p-Xylene	ND		5000	4980		ug/L		100	70 - 133	1	25
Naphthalene	ND		5000	5140		ug/L		103	60 - 140	3	30
n-Butylbenzene	ND		5000	5710		ug/L		114	61 - 149	2	20
N-Propylbenzene	ND		5000	5520		ug/L		110	66 - 135	1	20
o-Xylene	ND		5000	4920		ug/L		98	70 - 133	0	20
p-Isopropyltoluene	ND		5000	5450		ug/L		109	70 - 130	1	20
sec-Butylbenzene	ND		5000	5370		ug/L		107	67 - 134	2	20
Styrene	ND		5000	4880		ug/L		98	29 - 150	0	35
tert-Butylbenzene	ND		5000	5250		ug/L		105	70 - 130	2	20
1,1,1,2-Tetrachloroethane	ND		5000	4840		ug/L		97	60 - 149	0	20
1,1,2,2-Tetrachloroethane	ND		5000	5800		ug/L		116	63 - 130	3	30
Tetrachloroethene	ND		5000	4920		ug/L		98	70 - 137	1	20
Toluene	ND		5000	5040		ug/L		101	70 - 130	1	20
trans-1,2-Dichloroethene	ND		5000	4810		ug/L		96	70 - 130	0	20
trans-1,3-Dichloropropene	ND		5000	5380		ug/L		108	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		5000	5140		ug/L		103	60 - 140	1	20

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

Lab Sample ID: 440-151858-B-2 MSD
Matrix: Water
Analysis Batch: 341184

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	ND		5000	5350		ug/L		107	60 - 140	1	20
1,1,1-Trichloroethane	ND		5000	4640		ug/L		93	70 - 130	1	20
1,1,2-Trichloroethane	ND		5000	5130		ug/L		103	70 - 130	0	25
Trichloroethene	ND		5000	4370		ug/L		87	70 - 130	2	20
Trichlorofluoromethane	330		5000	5560		ug/L		105	60 - 150	10	25
1,2,3-Trichloropropane	ND		5000	5330		ug/L		107	60 - 130	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5000	4720		ug/L		94	60 - 140	1	20
1,2,4-Trimethylbenzene	ND		5000	5300		ug/L		106	70 - 130	2	25
1,3,5-Trimethylbenzene	ND		5000	5330		ug/L		107	70 - 130	2	20
Vinyl chloride	ND		5000	4790		ug/L		96	50 - 137	0	30
Isopropyl alcohol	ND		50000	50700		ug/L		101	46 - 142	2	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: MB 440-341253/5
Matrix: Water
Analysis Batch: 341253

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl alcohol	ND		250	180	ug/L			07/09/16 09:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*07/09/16 09:21*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*07/09/16 09:21*	*1*
Toluene-d8 (Surr)	*114*		*80 - 128*		*07/09/16 09:21*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-341080/1-A
Matrix: Water
Analysis Batch: 341496

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 341080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		07/08/16 10:19	07/11/16 13:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*57*		*36 - 90*	*07/08/16 10:19*	*07/11/16 13:57*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 440-341080/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 341496 — **Prep Batch: 341080**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.14		ug/L		57	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*57*		*36 - 90*

Lab Sample ID: LCSD 440-341080/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 341496 — **Prep Batch: 341080**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.16		ug/L		58	36 - 120	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*60*		*36 - 90*

Lab Sample ID: 440-152053-C-4-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 341496 — **Prep Batch: 341080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	0.21	J	1.90	1.29		ug/L		57	12 - 100		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*61*		*36 - 90*

Lab Sample ID: 440-152053-C-4-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 341496 — **Prep Batch: 341080**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	0.21	J	2.00	1.43		ug/L		61	12 - 100	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*65*		*36 - 90*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

GC/MS VOA

Analysis Batch: 341016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-151970-D-3 MS	Matrix Spike	Total/NA	Water	8260B	
440-151970-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-151983-1	OC_SP220B_EFF_070616	Total/NA	Water	8260B	
LCS 440-341016/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-341016/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 341184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-151858-B-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-151858-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-151983-2	OC_SP210_INF_070616	Total/NA	Water	8260B	
440-151983-3	OC_TB_070616	Total/NA	Water	8260B	
LCS 440-341184/26	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-341184/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-341184/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 341253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-151983-3 - RA	OC_TB_070616	Total/NA	Water	8260B	
MB 440-341253/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 341080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-151983-1	OC_SP220B_EFF_070616	Total/NA	Water	3520C	
440-152053-C-4-A MS	Matrix Spike	Total/NA	Water	3520C	
440-152053-C-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	
LCS 440-341080/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-341080/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
MB 440-341080/1-A	Method Blank	Total/NA	Water	3520C	

Analysis Batch: 341496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-151983-1	OC_SP220B_EFF_070616	Total/NA	Water	8270C SIM	341080
440-152053-C-4-A MS	Matrix Spike	Total/NA	Water	8270C SIM	341080
440-152053-C-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	341080
LCS 440-341080/3-A	Lab Control Sample	Total/NA	Water	8270C SIM	341080
LCSD 440-341080/4-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	341080
MB 440-341080/1-A	Method Blank	Total/NA	Water	8270C SIM	341080

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Qualifiers

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.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - ISCO/Composite & Grab

TestAmerica Job ID: 440-151983-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-16 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
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TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 7/6/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - GWTS Monthly	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #:	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_SP220B_EFF_ 070616	7/6/16	1045	Grab	GW	5			x	x	
OC_SP210_INF_ 070616	7/6/16	1055	Grab	GW	3			x		
OC_TB_ 070616	7/6/16	1030	Grab	H2O	3			x		

440-151983 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: JHA	Date/Time: 7/7/16 1133	Received by:	Company: TA	Date/Time: 7/7/16 1133
Relinquished by:	Company: TA	Date/Time: 7/7/16 1800	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Olga Cinelos	Company: TA I	Date/Time: 7/7/16 18:00

UYL
M

2.8/2.6
1278

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-151983-1

Login Number: 151983
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

TestAmerica

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ANALYTICAL REPORT

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

TestAmerica Job ID: 440-154440-1
Client Project/Site: Omega Chemical - GWTS Monthly

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

Attn: Jaime Dinello

Authorized for release by:
8/11/2016 4:53:00 PM
Lena Davidkova, Project Manager II
lena.davidkova@testamericainc.com

Designee for

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

LINKS

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www.testamericainc.com

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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 Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-154440-1	OC_SP220B_EFF_080316	Water	08/03/16 12:11	08/03/16 13:55
440-154440-2	OC_SP210_INF_080316	Water	08/03/16 12:17	08/03/16 13:55
440-154440-3	OC_TB_080316	Water	08/03/16 12:00	08/03/16 13:55

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_SP220B_EFF_080316

Lab Sample ID: 440-154440-1

Date Collected: 08/03/16 12:11

Matrix: Water

Date Received: 08/03/16 13:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/08/16 22:25	1
Benzene	ND		0.50	0.25	ug/L			08/08/16 22:25	1
Bromobenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Bromoform	ND		1.0	0.40	ug/L			08/08/16 22:25	1
Bromomethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/08/16 22:25	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Chloroethane	ND		1.0	0.40	ug/L			08/08/16 22:25	1
Chloroform	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Chloromethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 22:25	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/08/16 22:25	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Dibromomethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/08/16 22:25	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/08/16 22:25	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/08/16 22:25	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/08/16 22:25	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/08/16 22:25	1
Naphthalene	ND		1.0	0.40	ug/L			08/08/16 22:25	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/08/16 22:25	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
o-Xylene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Styrene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Toluene	ND		1.0	0.25	ug/L			08/08/16 22:25	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_SP220B_EFF_080316

Lab Sample ID: 440-154440-1

Date Collected: 08/03/16 12:11
Matrix: Water
Date Received: 08/03/16 13:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 22:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 22:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 22:25	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Trichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/08/16 22:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/08/16 22:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:25	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/08/16 22:25	1
Isopropyl alcohol	ND		250	180	ug/L			08/08/16 22:25	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/08/16 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/08/16 22:25*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/08/16 22:25*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/08/16 22:25*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**30**		4.8	0.97	ug/L		08/04/16 13:50	08/06/16 19:53	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*54*		*36 - 90*	*08/04/16 13:50*	*08/06/16 19:53*	*10*

Client Sample ID: OC_SP210_INF_080316

Lab Sample ID: 440-154440-2

Date Collected: 08/03/16 12:17
Matrix: Water
Date Received: 08/03/16 13:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			08/09/16 12:39	10
Benzene	ND		5.0	2.5	ug/L			08/09/16 12:39	10
Bromobenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Bromochloromethane	ND		10	2.5	ug/L			08/09/16 12:39	10
Bromodichloromethane	ND		10	2.5	ug/L			08/09/16 12:39	10
Bromoform	ND		10	4.0	ug/L			08/09/16 12:39	10
Bromomethane	ND		10	2.5	ug/L			08/09/16 12:39	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			08/09/16 12:39	10
Chlorobenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Chloroethane	ND		10	4.0	ug/L			08/09/16 12:39	10
Chloroform	**23**		10	2.5	ug/L			08/09/16 12:39	10
Chloromethane	ND		10	2.5	ug/L			08/09/16 12:39	10
2-Chlorotoluene	ND		10	2.5	ug/L			08/09/16 12:39	10
4-Chlorotoluene	ND		10	2.5	ug/L			08/09/16 12:39	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			08/09/16 12:39	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/09/16 12:39	10

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_SP210_INF_080316

Lab Sample ID: 440-154440-2

Date Collected: 08/03/16 12:17

Matrix: Water

Date Received: 08/03/16 13:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			08/09/16 12:39	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			08/09/16 12:39	10
Dibromomethane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,2-Dichlorobenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			08/09/16 12:39	10
1,1-Dichloroethane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,2-Dichloroethane	**5.5**	**J**	10	2.5	ug/L			08/09/16 12:39	10
1,1-Dichloroethene	**34**		10	2.5	ug/L			08/09/16 12:39	10
1,2-Dichloropropane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,3-Dichloropropane	ND		10	2.5	ug/L			08/09/16 12:39	10
2,2-Dichloropropane	ND		10	4.0	ug/L			08/09/16 12:39	10
1,1-Dichloropropene	ND		10	2.5	ug/L			08/09/16 12:39	10
Ethylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Hexachlorobutadiene	ND		10	2.5	ug/L			08/09/16 12:39	10
Isopropylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Methylene Chloride	**11**	**J B**	50	8.8	ug/L			08/09/16 12:39	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			08/09/16 12:39	10
m,p-Xylene	ND		10	5.0	ug/L			08/09/16 12:39	10
Naphthalene	ND		10	4.0	ug/L			08/09/16 12:39	10
n-Butylbenzene	ND		10	4.0	ug/L			08/09/16 12:39	10
N-Propylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
o-Xylene	ND		10	2.5	ug/L			08/09/16 12:39	10
p-Isopropyltoluene	ND		10	2.5	ug/L			08/09/16 12:39	10
sec-Butylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Styrene	ND		10	2.5	ug/L			08/09/16 12:39	10
tert-Butylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			08/09/16 12:39	10
Tetrachloroethene	**580**		10	2.5	ug/L			08/09/16 12:39	10
Toluene	ND		10	2.5	ug/L			08/09/16 12:39	10
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			08/09/16 12:39	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/09/16 12:39	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			08/09/16 12:39	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			08/09/16 12:39	10
1,1,1-Trichloroethane	ND		10	2.5	ug/L			08/09/16 12:39	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			08/09/16 12:39	10
Trichloroethene	**27**		10	2.5	ug/L			08/09/16 12:39	10
Trichlorofluoromethane	**10**		10	2.5	ug/L			08/09/16 12:39	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			08/09/16 12:39	10
1,1,2-Trichloro-1,2,2-trifluoroethane	**47**	**J**	50	5.0	ug/L			08/09/16 12:39	10
1,2,4-Trimethylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			08/09/16 12:39	10
Vinyl chloride	ND		5.0	2.5	ug/L			08/09/16 12:39	10
Isopropyl alcohol	ND		2500	1800	ug/L			08/09/16 12:39	10
Total Volatile Organic Compounds	ND		1500	750	ug/L			08/09/16 12:39	10

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_SP210_INF_080316

Lab Sample ID: 440-154440-2

Date Collected: 08/03/16 12:17
Matrix: Water
Date Received: 08/03/16 13:55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/09/16 12:39*	*10*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*08/09/16 12:39*	*10*
Toluene-d8 (Surr)	*110*		*80 - 128*		*08/09/16 12:39*	*10*

Client Sample ID: OC_TB_080316

Lab Sample ID: 440-154440-3

Date Collected: 08/03/16 12:00
Matrix: Water
Date Received: 08/03/16 13:55

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/08/16 22:53	1
Benzene	ND		0.50	0.25	ug/L			08/08/16 22:53	1
Bromobenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Bromoform	ND		1.0	0.40	ug/L			08/08/16 22:53	1
Bromomethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/08/16 22:53	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Chloroethane	ND		1.0	0.40	ug/L			08/08/16 22:53	1
Chloroform	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Chloromethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 22:53	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/08/16 22:53	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Dibromomethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/08/16 22:53	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/08/16 22:53	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/08/16 22:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/08/16 22:53	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/08/16 22:53	1
Naphthalene	ND		1.0	0.40	ug/L			08/08/16 22:53	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/08/16 22:53	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_TB_080316

Lab Sample ID: 440-154440-3

Date Collected: 08/03/16 12:00

Matrix: Water

Date Received: 08/03/16 13:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Styrene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Toluene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 22:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 22:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 22:53	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Trichloroethene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/08/16 22:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/08/16 22:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 22:53	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/08/16 22:53	1
Isopropyl alcohol	ND		250	180	ug/L			08/08/16 22:53	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/08/16 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/08/16 22:53*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/08/16 22:53*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/08/16 22:53*	*1*

Method Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Client Sample ID: OC_SP220B_EFF_080316

Lab Sample ID: 440-154440-1

Date Collected: 08/03/16 12:11
Matrix: Water
Date Received: 08/03/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	347638	08/08/16 22:25	WK	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	346878	08/04/16 13:50	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		10			347365	08/06/16 19:53	HN	TAL IRV

Client Sample ID: OC_SP210_INF_080316

Lab Sample ID: 440-154440-2

Date Collected: 08/03/16 12:17
Matrix: Water
Date Received: 08/03/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	347739	08/09/16 12:39	AA	TAL IRV

Client Sample ID: OC_TB_080316

Lab Sample ID: 440-154440-3

Date Collected: 08/03/16 12:00
Matrix: Water
Date Received: 08/03/16 13:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	347638	08/08/16 22:53	WK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-347638/4
Matrix: Water
Analysis Batch: 347638

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/08/16 19:09	1
Benzene	ND		0.50	0.25	ug/L			08/08/16 19:09	1
Bromobenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Bromoform	ND		1.0	0.40	ug/L			08/08/16 19:09	1
Bromomethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/08/16 19:09	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Chloroethane	ND		1.0	0.40	ug/L			08/08/16 19:09	1
Chloroform	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Chloromethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 19:09	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/08/16 19:09	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Dibromomethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/08/16 19:09	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/08/16 19:09	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/08/16 19:09	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/08/16 19:09	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/08/16 19:09	1
Naphthalene	ND		1.0	0.40	ug/L			08/08/16 19:09	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/08/16 19:09	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
o-Xylene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Styrene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/08/16 19:09	1

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

Lab Sample ID: MB 440-347638/4
Matrix: Water
Analysis Batch: 347638

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/08/16 19:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 19:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/08/16 19:09	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Trichloroethene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/08/16 19:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/08/16 19:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/08/16 19:09	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/08/16 19:09	1
Isopropyl alcohol	ND		250	180	ug/L			08/08/16 19:09	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/08/16 19:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/08/16 19:09*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/08/16 19:09*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/08/16 19:09*	*1*

Lab Sample ID: LCS 440-347638/5
Matrix: Water
Analysis Batch: 347638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.2		ug/L		89	10 - 150
Benzene	25.0	25.7		ug/L		103	68 - 130
Bromobenzene	25.0	27.0		ug/L		108	70 - 130
Bromochloromethane	25.0	26.7		ug/L		107	70 - 130
Bromodichloromethane	25.0	26.5		ug/L		106	70 - 132
Bromoform	25.0	24.7		ug/L		99	60 - 148
Bromomethane	25.0	25.1		ug/L		100	64 - 139
Carbon tetrachloride	25.0	24.4		ug/L		98	60 - 150
Chlorobenzene	25.0	24.9		ug/L		100	70 - 130
Chloroethane	25.0	24.6		ug/L		99	64 - 135
Chloroform	25.0	26.1		ug/L		104	70 - 130
Chloromethane	25.0	23.1		ug/L		92	47 - 140
2-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	25.0	26.3		ug/L		105	70 - 130
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 133
cis-1,3-Dichloropropene	25.0	27.4		ug/L		110	70 - 133
Dibromochloromethane	25.0	26.0		ug/L		104	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	24.3		ug/L		97	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.6		ug/L		102	70 - 130
Dibromomethane	25.0	26.4		ug/L		105	70 - 130
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130

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

Lab Sample ID: LCS 440-347638/5
Matrix: Water
Analysis Batch: 347638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	21.1		ug/L		85	29 - 150
1,1-Dichloroethane	25.0	25.3		ug/L		101	64 - 130
1,2-Dichloroethane	25.0	26.7		ug/L		107	57 - 138
1,1-Dichloroethene	25.0	24.5		ug/L		98	70 - 130
1,2-Dichloropropane	25.0	26.4		ug/L		105	67 - 130
1,3-Dichloropropane	25.0	25.0		ug/L		100	70 - 130
2,2-Dichloropropane	25.0	23.8		ug/L		95	68 - 141
1,1-Dichloropropene	25.0	24.5		ug/L		98	70 - 130
Ethylbenzene	25.0	24.5		ug/L		98	70 - 130
Hexachlorobutadiene	25.0	26.7		ug/L		107	10 - 150
Isopropylbenzene	25.0	25.6		ug/L		103	70 - 136
Methylene Chloride	25.0	26.7		ug/L		107	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	26.3		ug/L		105	63 - 131
m,p-Xylene	25.0	25.7		ug/L		103	70 - 130
Naphthalene	25.0	28.6		ug/L		114	60 - 140
n-Butylbenzene	25.0	25.9		ug/L		104	65 - 150
N-Propylbenzene	25.0	26.4		ug/L		105	67 - 139
o-Xylene	25.0	25.1		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	26.2		ug/L		105	70 - 132
sec-Butylbenzene	25.0	25.7		ug/L		103	70 - 138
Styrene	25.0	25.9		ug/L		104	70 - 134
tert-Butylbenzene	25.0	26.4		ug/L		105	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.9		ug/L		100	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
Tetrachloroethene	25.0	24.1		ug/L		96	70 - 130
Toluene	25.0	25.1		ug/L		101	70 - 130
trans-1,2-Dichloroethene	25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	25.0	26.3		ug/L		105	70 - 132
1,2,3-Trichlorobenzene	25.0	29.4		ug/L		118	60 - 140
1,2,4-Trichlorobenzene	25.0	28.9		ug/L		116	60 - 140
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	70 - 130
1,1,2-Trichloroethane	25.0	25.1		ug/L		100	70 - 130
Trichloroethene	25.0	26.1		ug/L		104	70 - 130
Trichlorofluoromethane	25.0	23.6		ug/L		94	60 - 150
1,2,3-Trichloropropane	25.0	23.9		ug/L		96	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.8		ug/L		95	60 - 140
1,2,4-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 135
1,3,5-Trimethylbenzene	25.0	27.0		ug/L		108	70 - 136
Vinyl chloride	25.0	23.6		ug/L		94	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

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

Lab Sample ID: LCS 440-347638/6
Matrix: Water
Analysis Batch: 347638

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	321		ug/L		128	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-154525-A-1 MS
Matrix: Water
Analysis Batch: 347638

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	31.5		ug/L		126	10 - 150
Benzene	ND		25.0	25.8		ug/L		103	66 - 130
Bromobenzene	ND		25.0	27.0		ug/L		108	70 - 130
Bromochloromethane	ND		25.0	27.9		ug/L		112	70 - 130
Bromodichloromethane	ND		25.0	26.7		ug/L		107	70 - 138
Bromoform	ND		25.0	25.6		ug/L		102	59 - 150
Bromomethane	ND		25.0	25.0		ug/L		100	62 - 131
Carbon tetrachloride	ND		25.0	24.7		ug/L		99	60 - 150
Chlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130
Chloroethane	ND		25.0	24.3		ug/L		97	68 - 130
Chloroform	ND		25.0	26.1		ug/L		105	70 - 130
Chloromethane	ND		25.0	23.6		ug/L		94	39 - 144
2-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	70 - 133
Dibromochloromethane	ND		25.0	26.1		ug/L		104	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	25.6		ug/L		102	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	25.9		ug/L		104	70 - 131
Dibromomethane	ND		25.0	26.9		ug/L		108	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.9		ug/L		104	70 - 130
Dichlorodifluoromethane	ND		25.0	21.8		ug/L		87	25 - 142
1,1-Dichloroethane	ND		25.0	25.3		ug/L		101	65 - 130
1,2-Dichloroethane	ND		25.0	27.0		ug/L		108	56 - 146
1,1-Dichloroethene	ND		25.0	28.6		ug/L		114	70 - 130
1,2-Dichloropropane	ND		25.0	27.1		ug/L		108	69 - 130
1,3-Dichloropropane	ND		25.0	26.0		ug/L		104	70 - 130
2,2-Dichloropropane	ND		25.0	24.6		ug/L		98	69 - 138
1,1-Dichloropropene	ND		25.0	25.0		ug/L		100	64 - 130
Ethylbenzene	ND		25.0	24.4		ug/L		98	70 - 130
Hexachlorobutadiene	ND		25.0	27.1		ug/L		109	10 - 150
Isopropylbenzene	ND		25.0	25.3		ug/L		101	70 - 132
Methylene Chloride	ND		25.0	26.7		ug/L		107	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.1		ug/L		108	70 - 130

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

Lab Sample ID: 440-154525-A-1 MS
Matrix: Water
Analysis Batch: 347638

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m,p-Xylene	ND		25.0	25.2		ug/L		101	70 - 133
Naphthalene	ND		25.0	29.9		ug/L		120	60 - 140
n-Butylbenzene	ND		25.0	26.1		ug/L		105	61 - 149
N-Propylbenzene	ND		25.0	26.3		ug/L		105	66 - 135
o-Xylene	ND		25.0	25.0		ug/L		100	70 - 133
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	25.8		ug/L		103	67 - 134
Styrene	ND		25.0	26.2		ug/L		105	29 - 150
tert-Butylbenzene	ND		25.0	26.3		ug/L		105	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	24.9		ug/L		99	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	24.5		ug/L		98	63 - 130
Tetrachloroethene	ND		25.0	23.9		ug/L		96	70 - 137
Toluene	ND		25.0	24.5		ug/L		98	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.1		ug/L		108	70 - 130
trans-1,3-Dichloropropene	ND		25.0	27.0		ug/L		108	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	29.7		ug/L		119	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	29.8		ug/L		119	60 - 140
1,1,1-Trichloroethane	ND		25.0	24.0		ug/L		96	70 - 130
1,1,2-Trichloroethane	ND		25.0	25.0		ug/L		100	70 - 130
Trichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
Trichlorofluoromethane	ND		25.0	23.2		ug/L		93	60 - 150
1,2,3-Trichloropropane	ND		25.0	24.1		ug/L		97	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.7		ug/L		99	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.9		ug/L		108	70 - 130
Vinyl chloride	ND		25.0	22.1		ug/L		88	50 - 137
Isopropyl alcohol	ND		250	330		ug/L		132	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Lab Sample ID: 440-154525-A-1 MSD
Matrix: Water
Analysis Batch: 347638

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	31.0		ug/L		124	10 - 150	2	35
Benzene	ND		25.0	25.9		ug/L		103	66 - 130	0	20
Bromobenzene	ND		25.0	27.3		ug/L		109	70 - 130	1	20
Bromochloromethane	ND		25.0	27.6		ug/L		110	70 - 130	1	25
Bromodichloromethane	ND		25.0	28.0		ug/L		112	70 - 138	4	20
Bromoform	ND		25.0	25.6		ug/L		102	59 - 150	0	25
Bromomethane	ND		25.0	25.7		ug/L		103	62 - 131	3	25
Carbon tetrachloride	ND		25.0	25.5		ug/L		102	60 - 150	3	25
Chlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130	0	20

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

Lab Sample ID: 440-154525-A-1 MSD
Matrix: Water
Analysis Batch: 347638

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		25.0	25.2		ug/L		101	68 - 130	4	25
Chloroform	ND		25.0	26.6		ug/L		106	70 - 130	2	20
Chloromethane	ND		25.0	23.7		ug/L		95	39 - 144	1	25
2-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130	1	20
4-Chlorotoluene	ND		25.0	26.6		ug/L		106	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	26.1		ug/L		105	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 133	0	20
Dibromochloromethane	ND		25.0	26.4		ug/L		106	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	25.2		ug/L		101	48 - 140	1	30
1,2-Dibromoethane (EDB)	ND		25.0	25.9		ug/L		104	70 - 131	0	25
Dibromomethane	ND		25.0	27.1		ug/L		108	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	26.4		ug/L		106	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	25.6		ug/L		103	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	1	20
Dichlorodifluoromethane	ND		25.0	22.1		ug/L		88	25 - 142	1	30
1,1-Dichloroethane	ND		25.0	26.2		ug/L		105	65 - 130	3	20
1,2-Dichloroethane	ND		25.0	27.5		ug/L		110	56 - 146	2	20
1,1-Dichloroethene	ND		25.0	29.1		ug/L		116	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	27.2		ug/L		109	69 - 130	0	20
1,3-Dichloropropane	ND		25.0	25.1		ug/L		100	70 - 130	3	25
2,2-Dichloropropane	ND		25.0	25.1		ug/L		101	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	24.8		ug/L		99	64 - 130	1	20
Ethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130	1	20
Hexachlorobutadiene	ND		25.0	27.2		ug/L		109	10 - 150	0	20
Isopropylbenzene	ND		25.0	25.7		ug/L		103	70 - 132	1	20
Methylene Chloride	ND		25.0	27.3		ug/L		109	52 - 130	2	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.4		ug/L		110	70 - 130	1	25
m,p-Xylene	ND		25.0	25.6		ug/L		102	70 - 133	1	25
Naphthalene	ND		25.0	29.9		ug/L		119	60 - 140	0	30
n-Butylbenzene	ND		25.0	26.3		ug/L		105	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.4		ug/L		106	66 - 135	1	20
o-Xylene	ND		25.0	25.2		ug/L		101	70 - 133	1	20
p-Isopropyltoluene	ND		25.0	26.5		ug/L		106	70 - 130	1	20
sec-Butylbenzene	ND		25.0	25.7		ug/L		103	67 - 134	1	20
Styrene	ND		25.0	26.2		ug/L		105	29 - 150	0	35
tert-Butylbenzene	ND		25.0	26.6		ug/L		107	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	25.1		ug/L		100	60 - 149	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	23.9		ug/L		96	63 - 130	3	30
Tetrachloroethene	ND		25.0	24.6		ug/L		98	70 - 137	3	20
Toluene	ND		25.0	24.6		ug/L		98	70 - 130	0	20
trans-1,2-Dichloroethene	ND		25.0	27.2		ug/L		109	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	27.0		ug/L		108	70 - 138	0	25
1,2,3-Trichlorobenzene	ND		25.0	29.5		ug/L		118	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		25.0	29.9		ug/L		120	60 - 140	0	20
1,1,1-Trichloroethane	ND		25.0	24.6		ug/L		99	70 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	25.2		ug/L		101	70 - 130	1	25
Trichloroethene	ND		25.0	26.0		ug/L		104	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	23.7		ug/L		95	60 - 150	2	25

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

Lab Sample ID: 440-154525-A-1 MSD
Matrix: Water
Analysis Batch: 347638

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		25.0	24.3		ug/L		97	60 - 130	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	24.8		ug/L		99	60 - 140	1	20
1,2,4-Trimethylbenzene	ND		25.0	27.4		ug/L		110	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130	1	20
Vinyl chloride	ND		25.0	22.3		ug/L		89	50 - 137	1	30
Isopropyl alcohol	ND		250	334		ug/L		134	46 - 142	1	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*97*		*80 - 128*

Lab Sample ID: MB 440-347739/5
Matrix: Water
Analysis Batch: 347739

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/09/16 11:10	1
Benzene	ND		0.50	0.25	ug/L			08/09/16 11:10	1
Bromobenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Bromoform	ND		1.0	0.40	ug/L			08/09/16 11:10	1
Bromomethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/09/16 11:10	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Chloroethane	ND		1.0	0.40	ug/L			08/09/16 11:10	1
Chloroform	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Chloromethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/16 11:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/09/16 11:10	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Dibromomethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/09/16 11:10	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/09/16 11:10	1

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

Lab Sample ID: MB 440-347739/5
Matrix: Water
Analysis Batch: 347739

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Methylene Chloride	1.01	J	5.0	0.88	ug/L			08/09/16 11:10	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/09/16 11:10	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/09/16 11:10	1
Naphthalene	ND		1.0	0.40	ug/L			08/09/16 11:10	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/09/16 11:10	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
o-Xylene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Styrene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Toluene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/09/16 11:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/16 11:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/09/16 11:10	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Trichloroethene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/09/16 11:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/09/16 11:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/09/16 11:10	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/09/16 11:10	1
Isopropyl alcohol	ND		250	180	ug/L			08/09/16 11:10	1
Total Volatile Organic Compounds	ND		150	75	ug/L			08/09/16 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/09/16 11:10*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*08/09/16 11:10*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*08/09/16 11:10*	*1*

Lab Sample ID: LCS 440-347739/6
Matrix: Water
Analysis Batch: 347739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.0		ug/L		88	10 - 150
Benzene	25.0	26.9		ug/L		107	68 - 130
Bromobenzene	25.0	26.8		ug/L		107	70 - 130

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

Lab Sample ID: LCS 440-347739/6
Matrix: Water
Analysis Batch: 347739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromochloromethane	25.0	29.2		ug/L		117	70 - 130
Bromodichloromethane	25.0	29.9		ug/L		120	70 - 132
Bromoform	25.0	29.5		ug/L		118	60 - 148
Bromomethane	25.0	24.0		ug/L		96	64 - 139
Carbon tetrachloride	25.0	27.3		ug/L		109	60 - 150
Chlorobenzene	25.0	26.7		ug/L		107	70 - 130
Chloroethane	25.0	22.4		ug/L		90	64 - 135
Chloroform	25.0	28.4		ug/L		114	70 - 130
Chloromethane	25.0	22.0		ug/L		88	47 - 140
2-Chlorotoluene	25.0	22.8		ug/L		91	70 - 130
4-Chlorotoluene	25.0	24.2		ug/L		97	70 - 130
cis-1,2-Dichloroethene	25.0	26.4		ug/L		105	70 - 133
cis-1,3-Dichloropropene	25.0	28.2		ug/L		113	70 - 133
Dibromochloromethane	25.0	28.5		ug/L		114	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	20.2		ug/L		81	52 - 140
1,2-Dibromoethane (EDB)	25.0	27.8		ug/L		111	70 - 130
Dibromomethane	25.0	26.1		ug/L		105	70 - 130
1,2-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	21.4		ug/L		86	29 - 150
1,1-Dichloroethane	25.0	26.4		ug/L		106	64 - 130
1,2-Dichloroethane	25.0	28.1		ug/L		113	57 - 138
1,1-Dichloroethene	25.0	26.0		ug/L		104	70 - 130
1,2-Dichloropropane	25.0	28.3		ug/L		113	67 - 130
1,3-Dichloropropane	25.0	23.4		ug/L		93	70 - 130
2,2-Dichloropropane	25.0	25.4		ug/L		102	68 - 141
1,1-Dichloropropene	25.0	24.7		ug/L		99	70 - 130
Ethylbenzene	25.0	25.0		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	27.2		ug/L		109	10 - 150
Isopropylbenzene	25.0	24.9		ug/L		100	70 - 136
Methylene Chloride	25.0	28.3		ug/L		113	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	29.6		ug/L		118	63 - 131
m,p-Xylene	25.0	26.5		ug/L		106	70 - 130
Naphthalene	25.0	26.2		ug/L		105	60 - 140
n-Butylbenzene	25.0	22.1		ug/L		88	65 - 150
N-Propylbenzene	25.0	22.3		ug/L		89	67 - 139
o-Xylene	25.0	26.2		ug/L		105	70 - 130
p-Isopropyltoluene	25.0	23.0		ug/L		92	70 - 132
sec-Butylbenzene	25.0	22.0		ug/L		88	70 - 138
Styrene	25.0	28.0		ug/L		112	70 - 134
tert-Butylbenzene	25.0	23.4		ug/L		94	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.8		ug/L		115	60 - 141
1,1,2,2-Tetrachloroethane	25.0	22.5		ug/L		90	63 - 130
Tetrachloroethene	25.0	27.1		ug/L		108	70 - 130
Toluene	25.0	25.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	27.8		ug/L		111	70 - 130
trans-1,3-Dichloropropene	25.0	28.2		ug/L		113	70 - 132

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

Lab Sample ID: LCS 440-347739/6
Matrix: Water
Analysis Batch: 347739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichlorobenzene	25.0	29.2		ug/L		117	60 - 140
1,2,4-Trichlorobenzene	25.0	29.8		ug/L		119	60 - 140
1,1,1-Trichloroethane	25.0	26.9		ug/L		108	70 - 130
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
Trichloroethene	25.0	25.5		ug/L		102	70 - 130
Trichlorofluoromethane	25.0	25.9		ug/L		103	60 - 150
1,2,3-Trichloropropane	25.0	22.2		ug/L		89	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.1		ug/L		97	60 - 140
1,2,4-Trimethylbenzene	25.0	23.8		ug/L		95	70 - 135
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		94	70 - 136
Vinyl chloride	25.0	21.8		ug/L		87	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Lab Sample ID: 440-154510-A-1 MS
Matrix: Water
Analysis Batch: 347739

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	19.6		ug/L		79	10 - 150
Benzene	ND		25.0	24.6		ug/L		98	66 - 130
Bromobenzene	ND		25.0	26.7		ug/L		107	70 - 130
Bromochloromethane	ND		25.0	26.6		ug/L		106	70 - 130
Bromodichloromethane	ND		25.0	27.0		ug/L		108	70 - 138
Bromoform	ND		25.0	28.3		ug/L		113	59 - 150
Bromomethane	ND		25.0	20.9		ug/L		84	62 - 131
Carbon tetrachloride	ND		25.0	25.2		ug/L		101	60 - 150
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130
Chloroethane	ND		25.0	20.1		ug/L		80	68 - 130
Chloroform	ND		25.0	26.0		ug/L		104	70 - 130
Chloromethane	ND		25.0	19.7		ug/L		79	39 - 144
2-Chlorotoluene	ND		25.0	22.5		ug/L		90	70 - 130
4-Chlorotoluene	ND		25.0	23.6		ug/L		94	70 - 130
cis-1,2-Dichloroethene	0.36	J	25.0	24.7		ug/L		97	70 - 130
cis-1,3-Dichloropropene	ND		25.0	26.6		ug/L		106	70 - 133
Dibromochloromethane	ND		25.0	26.3		ug/L		105	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	20.4		ug/L		82	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.4		ug/L		105	70 - 131
Dibromomethane	ND		25.0	24.5		ug/L		98	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		99	70 - 130
Dichlorodifluoromethane	ND		25.0	18.8		ug/L		75	25 - 142
1,1-Dichloroethane	ND		25.0	24.1		ug/L		97	65 - 130

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

Lab Sample ID: 440-154510-A-1 MS
Matrix: Water
Analysis Batch: 347739

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	ND		25.0	26.6		ug/L		106	56 - 146
1,1-Dichloroethene	ND		25.0	23.5		ug/L		94	70 - 130
1,2-Dichloropropane	ND		25.0	26.0		ug/L		104	69 - 130
1,3-Dichloropropane	ND		25.0	21.7		ug/L		87	70 - 130
2,2-Dichloropropane	ND		25.0	23.9		ug/L		96	69 - 138
1,1-Dichloropropene	ND		25.0	23.4		ug/L		94	64 - 130
Ethylbenzene	ND		25.0	23.0		ug/L		92	70 - 130
Hexachlorobutadiene	ND		25.0	26.5		ug/L		106	10 - 150
Isopropylbenzene	ND		25.0	23.2		ug/L		93	70 - 132
Methylene Chloride	ND		25.0	23.4		ug/L		94	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.4		ug/L		110	70 - 130
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	25.4		ug/L		102	60 - 140
n-Butylbenzene	ND		25.0	21.8		ug/L		87	61 - 149
N-Propylbenzene	ND		25.0	21.6		ug/L		86	66 - 135
o-Xylene	ND		25.0	24.4		ug/L		98	70 - 133
p-Isopropyltoluene	ND		25.0	22.4		ug/L		89	70 - 130
sec-Butylbenzene	ND		25.0	21.4		ug/L		86	67 - 134
Styrene	ND		25.0	23.9		ug/L		96	29 - 150
tert-Butylbenzene	ND		25.0	22.5		ug/L		90	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	26.3		ug/L		105	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	22.5		ug/L		90	63 - 130
Tetrachloroethene	ND		25.0	25.2		ug/L		101	70 - 137
Toluene	ND		25.0	22.9		ug/L		92	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130
trans-1,3-Dichloropropene	ND		25.0	26.4		ug/L		105	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	28.7		ug/L		115	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	29.3		ug/L		117	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.1		ug/L		101	70 - 130
1,1,2-Trichloroethane	ND		25.0	23.4		ug/L		94	70 - 130
Trichloroethene	11		25.0	34.2		ug/L		91	70 - 130
Trichlorofluoromethane	ND		25.0	24.0		ug/L		96	60 - 150
1,2,3-Trichloropropane	ND		25.0	22.4		ug/L		90	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.4		ug/L		90	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	21.9		ug/L		87	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	22.3		ug/L		89	70 - 130
Vinyl chloride	ND		25.0	19.8		ug/L		79	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*115*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

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

Lab Sample ID: 440-154510-A-1 MSD
Matrix: Water
Analysis Batch: 347739

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	19.6		ug/L		79	10 - 150	0	35
Benzene	ND		25.0	25.8		ug/L		103	66 - 130	5	20
Bromobenzene	ND		25.0	26.4		ug/L		106	70 - 130	1	20
Bromochloromethane	ND		25.0	26.4		ug/L		106	70 - 130	0	25
Bromodichloromethane	ND		25.0	26.9		ug/L		107	70 - 138	0	20
Bromoform	ND		25.0	28.6		ug/L		115	59 - 150	1	25
Bromomethane	ND		25.0	21.7		ug/L		87	62 - 131	4	25
Carbon tetrachloride	ND		25.0	25.9		ug/L		104	60 - 150	3	25
Chlorobenzene	ND		25.0	26.1		ug/L		104	70 - 130	6	20
Chloroethane	ND		25.0	19.8		ug/L		79	68 - 130	1	25
Chloroform	ND		25.0	26.6		ug/L		106	70 - 130	2	20
Chloromethane	ND		25.0	20.9		ug/L		84	39 - 144	6	25
2-Chlorotoluene	ND		25.0	23.0		ug/L		92	70 - 130	2	20
4-Chlorotoluene	ND		25.0	24.3		ug/L		97	70 - 130	3	20
cis-1,2-Dichloroethene	0.36	J	25.0	25.2		ug/L		99	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	27.6		ug/L		111	70 - 133	4	20
Dibromochloromethane	ND		25.0	27.0		ug/L		108	70 - 148	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	19.3		ug/L		77	48 - 140	6	30
1,2-Dibromoethane (EDB)	ND		25.0	26.3		ug/L		105	70 - 131	0	25
Dibromomethane	ND		25.0	24.7		ug/L		99	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	25.2		ug/L		101	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	25.6		ug/L		102	70 - 130	3	20
Dichlorodifluoromethane	ND		25.0	19.5		ug/L		78	25 - 142	4	30
1,1-Dichloroethane	ND		25.0	24.7		ug/L		99	65 - 130	2	20
1,2-Dichloroethane	ND		25.0	26.2		ug/L		105	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130	6	20
1,2-Dichloropropane	ND		25.0	26.1		ug/L		105	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	22.4		ug/L		90	70 - 130	3	25
2,2-Dichloropropane	ND		25.0	24.6		ug/L		98	69 - 138	3	25
1,1-Dichloropropene	ND		25.0	24.5		ug/L		98	64 - 130	5	20
Ethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	7	20
Hexachlorobutadiene	ND		25.0	27.4		ug/L		110	10 - 150	3	20
Isopropylbenzene	ND		25.0	24.9		ug/L		99	70 - 132	7	20
Methylene Chloride	ND		25.0	26.9		ug/L		108	52 - 130	14	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.3		ug/L		105	70 - 130	4	25
m,p-Xylene	ND		25.0	26.2		ug/L		105	70 - 133	6	25
Naphthalene	ND		25.0	25.2		ug/L		101	60 - 140	1	30
n-Butylbenzene	ND		25.0	22.7		ug/L		91	61 - 149	4	20
N-Propylbenzene	ND		25.0	22.6		ug/L		90	66 - 135	5	20
o-Xylene	ND		25.0	25.6		ug/L		102	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	22.8		ug/L		91	70 - 130	2	20
sec-Butylbenzene	ND		25.0	22.4		ug/L		90	67 - 134	4	20
Styrene	ND		25.0	25.4		ug/L		102	29 - 150	6	35
tert-Butylbenzene	ND		25.0	23.4		ug/L		94	70 - 130	4	20
1,1,1,2-Tetrachloroethane	ND		25.0	27.8		ug/L		111	60 - 149	6	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.8		ug/L		87	63 - 130	3	30
Tetrachloroethene	ND		25.0	27.2		ug/L		109	70 - 137	8	20

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

Lab Sample ID: 440-154510-A-1 MSD
Matrix: Water
Analysis Batch: 347739

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	ND		25.0	24.7		ug/L		99	70 - 130	7	20
trans-1,2-Dichloroethene	ND		25.0	26.2		ug/L		105	70 - 130	4	20
trans-1,3-Dichloropropene	ND		25.0	27.7		ug/L		111	70 - 138	5	25
1,2,3-Trichlorobenzene	ND		25.0	28.8		ug/L		115	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	29.7		ug/L		119	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	26.1		ug/L		104	70 - 130	4	20
1,1,2-Trichloroethane	ND		25.0	24.0		ug/L		96	70 - 130	3	25
Trichloroethene	11		25.0	34.9		ug/L		94	70 - 130	2	20
Trichlorofluoromethane	ND		25.0	25.1		ug/L		101	60 - 150	5	25
1,2,3-Trichloropropane	ND		25.0	20.6		ug/L		83	60 - 130	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.6		ug/L		94	60 - 140	5	20
1,2,4-Trimethylbenzene	ND		25.0	22.8		ug/L		91	70 - 130	4	25
1,3,5-Trimethylbenzene	ND		25.0	23.5		ug/L		94	70 - 130	5	20
Vinyl chloride	ND		25.0	21.0		ug/L		84	50 - 137	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*112*		*76 - 132*
Toluene-d8 (Surr)	*110*		*80 - 128*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-346878/1-A
Matrix: Water
Analysis Batch: 347365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 346878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/04/16 10:36	08/06/16 18:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*53*		*36 - 90*	*08/04/16 10:36*	*08/06/16 18:45*	*1*

Lab Sample ID: LCS 440-346878/3-A
Matrix: Water
Analysis Batch: 347365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 346878

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.17		ug/L		59	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*62*		*36 - 90*

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCSD 440-346878/4-A
Matrix: Water
Analysis Batch: 347365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 346878

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	0.981		ug/L		49	36 - 120	18	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*50*		*36 - 90*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

GC/MS VOA

Analysis Batch: 347638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-154440-1	OC_SP220B_EFF_080316	Total/NA	Water	8260B	
440-154440-3	OC_TB_080316	Total/NA	Water	8260B	
MB 440-347638/4	Method Blank	Total/NA	Water	8260B	
LCS 440-347638/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-347638/6	Lab Control Sample	Total/NA	Water	8260B	
440-154525-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-154525-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 347739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-154440-2	OC_SP210_INF_080316	Total/NA	Water	8260B	
MB 440-347739/5	Method Blank	Total/NA	Water	8260B	
LCS 440-347739/6	Lab Control Sample	Total/NA	Water	8260B	
440-154510-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-154510-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 346878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-154440-1	OC_SP220B_EFF_080316	Total/NA	Water	3520C	
MB 440-346878/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-346878/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-346878/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 347365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-154440-1	OC_SP220B_EFF_080316	Total/NA	Water	8270C SIM	346878
MB 440-346878/1-A	Method Blank	Total/NA	Water	8270C SIM	346878
LCS 440-346878/3-A	Lab Control Sample	Total/NA	Water	8270C SIM	346878
LCSD 440-346878/4-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	346878

Definitions/Glossary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Qualifiers

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-154440-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
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TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/3/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - GWTS Monthly	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #:	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_SP220B_EFF_080316	8/3/16	1211	Grab	GW	5			x	x	
OC_SP210_INF_080316	"	1217	Grab	GW	3			x		
OC_TB_080316	"	1200	Grab	H2O	3			x		

440-154440 Chain of Custody

WS
8/3/16
16:55

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	THS	8/3/16 1355			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: AA	Date/Time: 8/3/16 1355

14.1/13.9° 78

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-154440-1

Login Number: 154440

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

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.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
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	

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: 440-155928-1
Client Project/Site: Omega Chemical - GWM Semi

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

Attn: Jaime Dinello

Authorized for release by:
8/30/2016 4:42:34 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

LINKS

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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 Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-155928-1	OC-GW-DPE-3_20160817	Water	08/17/16 09:00	08/17/16 19:10
440-155928-2	OC-GW-DPE-4_20160817	Water	08/17/16 09:14	08/17/16 19:10
440-155928-3	OC-GW-DPE-5_20160817	Water	08/17/16 09:30	08/17/16 19:10
440-155928-4	OC-GW-DPE-8_20160817	Water	08/17/16 09:53	08/17/16 19:10
440-155928-5	OC-GW-OW1B_20160817	Water	08/17/16 12:58	08/17/16 19:10
440-155928-6	OC-GW-OW12_20160817	Water	08/17/16 14:41	08/17/16 19:10
440-155928-7	OC-GW-OW12N_20160817	Water	08/17/16 14:57	08/17/16 19:10
440-155928-8	OC-GW-OW12K_20160817	Water	08/17/16 14:41	08/17/16 19:10
440-155928-9	OC-GW-TB_20160817	Water	08/17/16 08:00	08/17/16 19:10

Job ID: 440-155928-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-155928-1

Comments
No additional comments.

Receipt
The samples were received on 8/17/2016 7:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

Receipt Exceptions

The following sample was listed on the Chain of Custody (COC); however, no sample was received: OC-GW-OW12N_20160817 (440-155928-7).

For this sample it only came with the (3) Voa Vials, it is missing (2) Unpreserved Amber Glass.

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350100 and analytical batch 440-350526. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: The following samples required a dilution due to the nature of the sample matrix: OC-GW-DPE-3_20160817 (440-155928-1) and OC-GW-DPE-4_20160817 (440-155928-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

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

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-3_20160817

Lab Sample ID: 440-155928-1

Date Collected: 08/17/16 09:00
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/22/16 23:01	1
Benzene	ND		0.50	0.25	ug/L			08/22/16 23:01	1
Bromobenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Bromoform	ND		1.0	0.40	ug/L			08/22/16 23:01	1
Bromomethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/22/16 23:01	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Chloroethane	ND		1.0	0.40	ug/L			08/22/16 23:01	1
Chloroform	**5.4**		1.0	0.25	ug/L			08/22/16 23:01	1
Chloromethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 23:01	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/22/16 23:01	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Dibromomethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,2-Dichlorobenzene	**0.36**	**J**	1.0	0.25	ug/L			08/22/16 23:01	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/22/16 23:01	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,2-Dichloroethane	**4.7**		1.0	0.25	ug/L			08/22/16 23:01	1
1,1-Dichloroethene	**8.2**		1.0	0.25	ug/L			08/22/16 23:01	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/22/16 23:01	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Isopropyl alcohol	ND		250	180	ug/L			08/22/16 23:01	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/22/16 23:01	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/22/16 23:01	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/22/16 23:01	1
Naphthalene	ND		1.0	0.40	ug/L			08/22/16 23:01	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/22/16 23:01	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
o-Xylene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Styrene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Toluene	ND		1.0	0.25	ug/L			08/22/16 23:01	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-3_20160817

Lab Sample ID: 440-155928-1
Date Collected: 08/17/16 09:00
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 23:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 23:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 23:01	1
1,1,1-Trichloroethane	**1.2**		1.0	0.25	ug/L			08/22/16 23:01	1
1,1,2-Trichloroethane	**6.7**		1.0	0.25	ug/L			08/22/16 23:01	1
Trichloroethene	**17**		1.0	0.25	ug/L			08/22/16 23:01	1
Trichlorofluoromethane	**9.0**		1.0	0.25	ug/L			08/22/16 23:01	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/22/16 23:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:01	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/22/16 23:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/22/16 23:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/22/16 23:01*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/22/16 23:01*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/22/16 23:01*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**510**		2.5	0.63	ug/L			08/20/16 11:24	2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	**130**		13	1.3	ug/L			08/20/16 11:24	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*08/20/16 11:24*	*2.5*
Dibromofluoromethane (Surr)	*121*		*76 - 132*		*08/20/16 11:24*	*2.5*
Toluene-d8 (Surr)	*117*		*80 - 128*		*08/20/16 11:24*	*2.5*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**24**		4.8	0.97	ug/L		08/18/16 08:07	08/22/16 12:53	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*63*		*36 - 90*	*08/18/16 08:07*	*08/22/16 12:53*	*10*

Client Sample ID: OC-GW-DPE-4_20160817

Lab Sample ID: 440-155928-2
Date Collected: 08/17/16 09:14
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	25	ug/L			08/22/16 23:57	2.5
Benzene	ND		1.3	0.63	ug/L			08/22/16 23:57	2.5
Bromobenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Bromochloromethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Bromodichloromethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Bromoform	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-4_20160817

Lab Sample ID: 440-155928-2

Date Collected: 08/17/16 09:14
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Carbon tetrachloride	ND		1.3	0.63	ug/L			08/22/16 23:57	2.5
Chlorobenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Chloroethane	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
Chloroform	**29**		2.5	0.63	ug/L			08/22/16 23:57	2.5
Chloromethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
2-Chlorotoluene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
4-Chlorotoluene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
cis-1,2-Dichloroethene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
cis-1,3-Dichloropropene	ND		1.3	0.63	ug/L			08/22/16 23:57	2.5
Dibromochloromethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,2-Dibromo-3-Chloropropane	ND		13	1.3	ug/L			08/22/16 23:57	2.5
1,2-Dibromoethane (EDB)	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Dibromomethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,2-Dichlorobenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,3-Dichlorobenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,4-Dichlorobenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Dichlorodifluoromethane	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
1,1-Dichloroethane	**1.2**	**J**	2.5	0.63	ug/L			08/22/16 23:57	2.5
1,2-Dichloroethane	**12**		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,1-Dichloroethene	**15**		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,2-Dichloropropane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,3-Dichloropropane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
2,2-Dichloropropane	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
1,1-Dichloropropene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Ethylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Hexachlorobutadiene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Isopropyl alcohol	ND		630	440	ug/L			08/22/16 23:57	2.5
Isopropylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Methylene Chloride	ND		13	2.2	ug/L			08/22/16 23:57	2.5
Methyl-t-Butyl Ether (MTBE)	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
m,p-Xylene	ND		2.5	1.3	ug/L			08/22/16 23:57	2.5
Naphthalene	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
n-Butylbenzene	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
N-Propylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
o-Xylene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
p-Isopropyltoluene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
sec-Butylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Styrene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
tert-Butylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,1,1,2-Tetrachloroethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,1,2,2-Tetrachloroethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Toluene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
trans-1,2-Dichloroethene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
trans-1,3-Dichloropropene	ND		1.3	0.63	ug/L			08/22/16 23:57	2.5
1,2,3-Trichlorobenzene	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
1,2,4-Trichlorobenzene	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
1,1,1-Trichloroethane	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,1,2-Trichloroethane	**2.5**		2.5	0.63	ug/L			08/22/16 23:57	2.5

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-4_20160817

Lab Sample ID: 440-155928-2
Date Collected: 08/17/16 09:14
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**47**		2.5	0.63	ug/L			08/22/16 23:57	2.5
Trichlorofluoromethane	**7.9**		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,2,3-Trichloropropane	ND		2.5	1.0	ug/L			08/22/16 23:57	2.5
1,1,2-Trichloro-1,2,2-trifluoroethane	**150**		13	1.3	ug/L			08/22/16 23:57	2.5
1,2,4-Trimethylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
1,3,5-Trimethylbenzene	ND		2.5	0.63	ug/L			08/22/16 23:57	2.5
Vinyl chloride	ND		1.3	0.63	ug/L			08/22/16 23:57	2.5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/22/16 23:57*	*2.5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/22/16 23:57*	*2.5*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/22/16 23:57*	*2.5*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/22/16 23:57*	*2.5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**1300**		10	2.5	ug/L			08/20/16 11:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*08/20/16 11:54*	*10*
Dibromofluoromethane (Surr)	*121*		*76 - 132*		*08/20/16 11:54*	*10*
Toluene-d8 (Surr)	*109*		*80 - 128*		*08/20/16 11:54*	*10*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**85**		9.6	1.9	ug/L		08/18/16 08:07	08/22/16 13:15	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*	*08/18/16 08:07*	*08/22/16 13:15*	*20*

Client Sample ID: OC-GW-DPE-5_20160817

Lab Sample ID: 440-155928-3
Date Collected: 08/17/16 09:30
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/22/16 23:29	1
Benzene	ND		0.50	0.25	ug/L			08/22/16 23:29	1
Bromobenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Bromoform	ND		1.0	0.40	ug/L			08/22/16 23:29	1
Bromomethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/22/16 23:29	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Chloroethane	ND		1.0	0.40	ug/L			08/22/16 23:29	1
Chloroform	**10**		1.0	0.25	ug/L			08/22/16 23:29	1
Chloromethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-5_20160817

Lab Sample ID: 440-155928-3

Date Collected: 08/17/16 09:30
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 23:29	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/22/16 23:29	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Dibromomethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/22/16 23:29	1
1,1-Dichloroethane	**0.29**	**J**	1.0	0.25	ug/L			08/22/16 23:29	1
1,2-Dichloroethane	**0.42**	**J**	1.0	0.25	ug/L			08/22/16 23:29	1
1,1-Dichloroethene	**53**		1.0	0.25	ug/L			08/22/16 23:29	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/22/16 23:29	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Isopropyl alcohol	ND		250	180	ug/L			08/22/16 23:29	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/22/16 23:29	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/22/16 23:29	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/22/16 23:29	1
Naphthalene	ND		1.0	0.40	ug/L			08/22/16 23:29	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/22/16 23:29	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
o-Xylene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Styrene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Toluene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 23:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 23:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 23:29	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/22/16 23:29	1
Trichloroethene	**21**		1.0	0.25	ug/L			08/22/16 23:29	1
Trichlorofluoromethane	**8.9**		1.0	0.25	ug/L			08/22/16 23:29	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/22/16 23:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**14**		5.0	0.50	ug/L			08/22/16 23:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 23:29	1

Client Sample ID: OC-GW-DPE-5_20160817

Lab Sample ID: 440-155928-3
Date Collected: 08/17/16 09:30
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50	0.25	ug/L			08/22/16 23:29	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/22/16 23:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/22/16 23:29*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/22/16 23:29*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/22/16 23:29*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**240**		2.0	0.50	ug/L			08/20/16 13:23	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*08/20/16 13:23*	*2*
Dibromofluoromethane (Surr)	*124*		*76 - 132*		*08/20/16 13:23*	*2*
Toluene-d8 (Surr)	*111*		*80 - 128*		*08/20/16 13:23*	*2*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.5**		0.49	0.099	ug/L		08/18/16 08:07	08/19/16 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*53*		*36 - 90*	*08/18/16 08:07*	*08/19/16 22:05*	*1*

Client Sample ID: OC-GW-DPE-8_20160817

Lab Sample ID: 440-155928-4
Date Collected: 08/17/16 09:53
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/20/16 13:53	1
Benzene	ND		0.50	0.25	ug/L			08/20/16 13:53	1
Bromobenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Bromoform	ND		1.0	0.40	ug/L			08/20/16 13:53	1
Bromomethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/20/16 13:53	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Chloroethane	ND		1.0	0.40	ug/L			08/20/16 13:53	1
Chloroform	**0.83**	**J**	1.0	0.25	ug/L			08/20/16 13:53	1
Chloromethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 13:53	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/20/16 13:53	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/20/16 13:53	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-8_20160817

Lab Sample ID: 440-155928-4

Date Collected: 08/17/16 09:53
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/20/16 13:53	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,1-Dichloroethene	**2.7**		1.0	0.25	ug/L			08/20/16 13:53	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/20/16 13:53	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Isopropyl alcohol	ND		250	180	ug/L			08/20/16 13:53	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/20/16 13:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/20/16 13:53	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/20/16 13:53	1
Naphthalene	ND		1.0	0.40	ug/L			08/20/16 13:53	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/20/16 13:53	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
o-Xylene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Styrene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Tetrachloroethene	**47**		1.0	0.25	ug/L			08/20/16 13:53	1
Toluene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 13:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 13:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 13:53	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Trichloroethene	**5.2**		1.0	0.25	ug/L			08/20/16 13:53	1
Trichlorofluoromethane	**2.3**		1.0	0.25	ug/L			08/20/16 13:53	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/20/16 13:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.9**	**J**	5.0	0.50	ug/L			08/20/16 13:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 13:53	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/20/16 13:53	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/20/16 13:53*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-8_20160817

Lab Sample ID: 440-155928-4
Date Collected: 08/17/16 09:53
Matrix: Water
Date Received: 08/17/16 19:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*08/20/16 13:53*	*1*
Dibromofluoromethane (Surr)	*124*		*76 - 132*		*08/20/16 13:53*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*08/20/16 13:53*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**5.8**		0.49	0.097	ug/L		08/18/16 08:07	08/19/16 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*55*		*36 - 90*	*08/18/16 08:07*	*08/19/16 22:27*	*1*

Client Sample ID: OC-GW-OW1B_20160817

Lab Sample ID: 440-155928-5
Date Collected: 08/17/16 12:58
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/20/16 14:23	1
Benzene	ND		0.50	0.25	ug/L			08/20/16 14:23	1
Bromobenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Bromoform	ND		1.0	0.40	ug/L			08/20/16 14:23	1
Bromomethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/20/16 14:23	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Chloroethane	ND		1.0	0.40	ug/L			08/20/16 14:23	1
Chloroform	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Chloromethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 14:23	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/20/16 14:23	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Dibromomethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/20/16 14:23	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/20/16 14:23	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Isopropyl alcohol	ND		250	180	ug/L			08/20/16 14:23	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW1B_20160817

Lab Sample ID: 440-155928-5

Date Collected: 08/17/16 12:58
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/20/16 14:23	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/20/16 14:23	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/20/16 14:23	1
Naphthalene	ND		1.0	0.40	ug/L			08/20/16 14:23	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/20/16 14:23	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
o-Xylene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Styrene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Tetrachloroethene	**5.6**		1.0	0.25	ug/L			08/20/16 14:23	1
Toluene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 14:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 14:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 14:23	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Trichloroethene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Trichlorofluoromethane	**8.3**		1.0	0.25	ug/L			08/20/16 14:23	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/20/16 14:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**16**		5.0	0.50	ug/L			08/20/16 14:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 14:23	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/20/16 14:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Dichlorofluoromethane	*3.8*		*ug/L*		*3.76*	*75-43-4*		*08/20/16 14:23*	*1*
1,2-Dichloro-1,1,2-trifluoroethane	*5.0*		*ug/L*		*4.19*	*354-23-4*		*08/20/16 14:23*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/20/16 14:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/20/16 14:23*	*1*
Dibromofluoromethane (Surr)	*123*		*76 - 132*		*08/20/16 14:23*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*08/20/16 14:23*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**2.6**		0.48	0.096	ug/L		08/18/16 08:07	08/19/16 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*54*		*36 - 90*	*08/18/16 08:07*	*08/19/16 22:50*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW12_20160817

Lab Sample ID: 440-155928-6

Date Collected: 08/17/16 14:41
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			08/23/16 00:25	10
Benzene	ND		5.0	2.5	ug/L			08/23/16 00:25	10
Bromobenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Bromochloromethane	ND		10	2.5	ug/L			08/23/16 00:25	10
Bromodichloromethane	ND		10	2.5	ug/L			08/23/16 00:25	10
Bromoform	ND		10	4.0	ug/L			08/23/16 00:25	10
Bromomethane	ND		10	2.5	ug/L			08/23/16 00:25	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			08/23/16 00:25	10
Chlorobenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Chloroethane	ND		10	4.0	ug/L			08/23/16 00:25	10
Chloroform	**130**		10	2.5	ug/L			08/23/16 00:25	10
Chloromethane	ND		10	2.5	ug/L			08/23/16 00:25	10
2-Chlorotoluene	ND		10	2.5	ug/L			08/23/16 00:25	10
4-Chlorotoluene	ND		10	2.5	ug/L			08/23/16 00:25	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			08/23/16 00:25	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/23/16 00:25	10
Dibromochloromethane	ND		10	2.5	ug/L			08/23/16 00:25	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			08/23/16 00:25	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			08/23/16 00:25	10
Dibromomethane	ND		10	2.5	ug/L			08/23/16 00:25	10
1,2-Dichlorobenzene	**3.2**	**J**	10	2.5	ug/L			08/23/16 00:25	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			08/23/16 00:25	10
1,1-Dichloroethane	ND		10	2.5	ug/L			08/23/16 00:25	10
1,2-Dichloroethane	**5.9**	**J**	10	2.5	ug/L			08/23/16 00:25	10
1,1-Dichloroethene	**140**		10	2.5	ug/L			08/23/16 00:25	10
1,2-Dichloropropane	ND		10	2.5	ug/L			08/23/16 00:25	10
1,3-Dichloropropane	ND		10	2.5	ug/L			08/23/16 00:25	10
2,2-Dichloropropane	ND		10	4.0	ug/L			08/23/16 00:25	10
1,1-Dichloropropene	ND		10	2.5	ug/L			08/23/16 00:25	10
Ethylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Hexachlorobutadiene	ND		10	2.5	ug/L			08/23/16 00:25	10
Isopropyl alcohol	ND		2500	1800	ug/L			08/23/16 00:25	10
Isopropylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Methylene Chloride	**17**	**J**	50	8.8	ug/L			08/23/16 00:25	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			08/23/16 00:25	10
m,p-Xylene	ND		10	5.0	ug/L			08/23/16 00:25	10
Naphthalene	ND		10	4.0	ug/L			08/23/16 00:25	10
n-Butylbenzene	ND		10	4.0	ug/L			08/23/16 00:25	10
N-Propylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
o-Xylene	ND		10	2.5	ug/L			08/23/16 00:25	10
p-Isopropyltoluene	ND		10	2.5	ug/L			08/23/16 00:25	10
sec-Butylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Styrene	ND		10	2.5	ug/L			08/23/16 00:25	10
tert-Butylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			08/23/16 00:25	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			08/23/16 00:25	10
Toluene	**38**		10	2.5	ug/L			08/23/16 00:25	10

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW12_20160817

Lab Sample ID: 440-155928-6
Date Collected: 08/17/16 14:41
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			08/23/16 00:25	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/23/16 00:25	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			08/23/16 00:25	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			08/23/16 00:25	10
1,1,1-Trichloroethane	**44**		10	2.5	ug/L			08/23/16 00:25	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			08/23/16 00:25	10
Trichloroethene	**230**		10	2.5	ug/L			08/23/16 00:25	10
Trichlorofluoromethane	**65**		10	2.5	ug/L			08/23/16 00:25	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			08/23/16 00:25	10
1,2,4-Trimethylbenzene	**3.5**	**J**	10	2.5	ug/L			08/23/16 00:25	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			08/23/16 00:25	10
Vinyl chloride	ND		5.0	2.5	ug/L			08/23/16 00:25	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 00:25*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/23/16 00:25*	*10*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/23/16 00:25*	*10*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 00:25*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**2300**		25	6.3	ug/L			08/20/16 14:52	25
1,1,2-Trichloro-1,2,2-trifluoroethane	**2200**		130	13	ug/L			08/20/16 14:52	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*08/20/16 14:52*	*25*
Dibromofluoromethane (Surr)	*121*		*76 - 132*		*08/20/16 14:52*	*25*
Toluene-d8 (Surr)	*110*		*80 - 128*		*08/20/16 14:52*	*25*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**12**		0.96	0.19	ug/L		08/18/16 08:07	08/19/16 23:12	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*47*		*36 - 90*	*08/18/16 08:07*	*08/19/16 23:12*	*2*

Client Sample ID: OC-GW-OW12N_20160817

Lab Sample ID: 440-155928-7
Date Collected: 08/17/16 14:57
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/20/16 15:22	1
Benzene	ND		0.50	0.25	ug/L			08/20/16 15:22	1
Bromobenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Bromoform	ND		1.0	0.40	ug/L			08/20/16 15:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW12N_20160817

Lab Sample ID: 440-155928-7

Date Collected: 08/17/16 14:57
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/20/16 15:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Chloroethane	ND		1.0	0.40	ug/L			08/20/16 15:22	1
Chloroform	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Chloromethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 15:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/20/16 15:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Dibromomethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/20/16 15:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/20/16 15:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Isopropyl alcohol	ND		250	180	ug/L			08/20/16 15:22	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/20/16 15:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/20/16 15:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/20/16 15:22	1
Naphthalene	ND		1.0	0.40	ug/L			08/20/16 15:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/20/16 15:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
o-Xylene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Styrene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Tetrachloroethene	**0.28**	**J**	1.0	0.25	ug/L			08/20/16 15:22	1
Toluene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 15:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 15:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 15:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW12N_20160817

Lab Sample ID: 440-155928-7
Date Collected: 08/17/16 14:57
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Trichloroethene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/20/16 15:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/20/16 15:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 15:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/20/16 15:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/20/16 15:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*08/20/16 15:22*	*1*
Dibromofluoromethane (Surr)	*125*		*76 - 132*		*08/20/16 15:22*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*08/20/16 15:22*	*1*

Client Sample ID: OC-GW-OW12K_20160817

Lab Sample ID: 440-155928-8
Date Collected: 08/17/16 14:41
Matrix: Water
Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			08/23/16 00:53	10
Benzene	ND		5.0	2.5	ug/L			08/23/16 00:53	10
Bromobenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Bromochloromethane	ND		10	2.5	ug/L			08/23/16 00:53	10
Bromodichloromethane	ND		10	2.5	ug/L			08/23/16 00:53	10
Bromoform	ND		10	4.0	ug/L			08/23/16 00:53	10
Bromomethane	ND		10	2.5	ug/L			08/23/16 00:53	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			08/23/16 00:53	10
Chlorobenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Chloroethane	ND		10	4.0	ug/L			08/23/16 00:53	10
Chloroform	**140**		10	2.5	ug/L			08/23/16 00:53	10
Chloromethane	ND		10	2.5	ug/L			08/23/16 00:53	10
2-Chlorotoluene	ND		10	2.5	ug/L			08/23/16 00:53	10
4-Chlorotoluene	ND		10	2.5	ug/L			08/23/16 00:53	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			08/23/16 00:53	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/23/16 00:53	10
Dibromochloromethane	ND		10	2.5	ug/L			08/23/16 00:53	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			08/23/16 00:53	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			08/23/16 00:53	10
Dibromomethane	ND		10	2.5	ug/L			08/23/16 00:53	10
1,2-Dichlorobenzene	**3.7**	**J**	10	2.5	ug/L			08/23/16 00:53	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			08/23/16 00:53	10
1,1-Dichloroethane	ND		10	2.5	ug/L			08/23/16 00:53	10
1,2-Dichloroethane	**7.1**	**J**	10	2.5	ug/L			08/23/16 00:53	10
1,1-Dichloroethene	**140**		10	2.5	ug/L			08/23/16 00:53	10

Client Sample ID: OC-GW-OW12K_20160817

Lab Sample ID: 440-155928-8

Date Collected: 08/17/16 14:41
Matrix: Water
Date Received: 08/17/16 19:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		10	2.5	ug/L			08/23/16 00:53	10
1,3-Dichloropropane	ND		10	2.5	ug/L			08/23/16 00:53	10
2,2-Dichloropropane	ND		10	4.0	ug/L			08/23/16 00:53	10
1,1-Dichloropropene	ND		10	2.5	ug/L			08/23/16 00:53	10
Ethylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Hexachlorobutadiene	ND		10	2.5	ug/L			08/23/16 00:53	10
Isopropyl alcohol	ND		2500	1800	ug/L			08/23/16 00:53	10
Isopropylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Methylene Chloride	**18**	**J**	50	8.8	ug/L			08/23/16 00:53	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			08/23/16 00:53	10
m,p-Xylene	ND		10	5.0	ug/L			08/23/16 00:53	10
Naphthalene	ND		10	4.0	ug/L			08/23/16 00:53	10
n-Butylbenzene	ND		10	4.0	ug/L			08/23/16 00:53	10
N-Propylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
o-Xylene	ND		10	2.5	ug/L			08/23/16 00:53	10
p-Isopropyltoluene	ND		10	2.5	ug/L			08/23/16 00:53	10
sec-Butylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Styrene	ND		10	2.5	ug/L			08/23/16 00:53	10
tert-Butylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			08/23/16 00:53	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			08/23/16 00:53	10
Toluene	**41**		10	2.5	ug/L			08/23/16 00:53	10
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			08/23/16 00:53	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/23/16 00:53	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			08/23/16 00:53	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			08/23/16 00:53	10
1,1,1-Trichloroethane	**44**		10	2.5	ug/L			08/23/16 00:53	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			08/23/16 00:53	10
Trichloroethene	**240**		10	2.5	ug/L			08/23/16 00:53	10
Trichlorofluoromethane	**65**		10	2.5	ug/L			08/23/16 00:53	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			08/23/16 00:53	10
1,2,4-Trimethylbenzene	**3.9**	**J**	10	2.5	ug/L			08/23/16 00:53	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			08/23/16 00:53	10
Vinyl chloride	ND		5.0	2.5	ug/L			08/23/16 00:53	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 00:53*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/23/16 00:53*	*10*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/23/16 00:53*	*10*
Toluene-d8 (Surr)	*103*		*80 - 128*		*08/23/16 00:53*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**2400**		40	10	ug/L			08/20/16 15:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	**2300**		200	20	ug/L			08/20/16 15:52	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*08/20/16 15:52*	*40*

Client Sample ID: OC-GW-OW12K_20160817

Lab Sample ID: 440-155928-8

Date Collected: 08/17/16 14:41

Matrix: Water

Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*129*		*76 - 132*		*08/20/16 15:52*	*40*
Toluene-d8 (Surr)	*107*		*80 - 128*		*08/20/16 15:52*	*40*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**13**		0.96	0.19	ug/L		08/18/16 08:07	08/19/16 23:34	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*52*		*36 - 90*	*08/18/16 08:07*	*08/19/16 23:34*	*2*

Client Sample ID: OC-GW-TB_20160817

Lab Sample ID: 440-155928-9

Date Collected: 08/17/16 08:00

Matrix: Water

Date Received: 08/17/16 19:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/20/16 16:22	1
Benzene	ND		0.50	0.25	ug/L			08/20/16 16:22	1
Bromobenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Bromoform	ND		1.0	0.40	ug/L			08/20/16 16:22	1
Bromomethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/20/16 16:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Chloroethane	ND		1.0	0.40	ug/L			08/20/16 16:22	1
Chloroform	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Chloromethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 16:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/20/16 16:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Dibromomethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/20/16 16:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/20/16 16:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Isopropyl alcohol	ND		250	180	ug/L			08/20/16 16:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-TB_20160817

Lab Sample ID: 440-155928-9

Date Collected: 08/17/16 08:00
Date Received: 08/17/16 19:10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/20/16 16:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/20/16 16:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/20/16 16:22	1
Naphthalene	ND		1.0	0.40	ug/L			08/20/16 16:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/20/16 16:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
o-Xylene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Styrene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Toluene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 16:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 16:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 16:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Trichloroethene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/20/16 16:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/20/16 16:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 16:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/20/16 16:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/20/16 16:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/20/16 16:22*	*1*
Dibromofluoromethane (Surr)	*125*		*76 - 132*		*08/20/16 16:22*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*08/20/16 16:22*	*1*

Method Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-DPE-3_20160817 — Lab Sample ID: 440-155928-1

Date Collected: 08/17/16 09:00 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351055	08/22/16 23:01	WK	TAL IRV
Total/NA	Analysis	8260B	DL	2.5	10 mL	10 mL	350675	08/20/16 11:24	RM	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		10			350992	08/22/16 12:53	AI	TAL IRV

Client Sample ID: OC-GW-DPE-4_20160817 — Lab Sample ID: 440-155928-2

Date Collected: 08/17/16 09:14 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	10 mL	10 mL	351055	08/22/16 23:57	WK	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	350675	08/20/16 11:54	RM	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		20			350992	08/22/16 13:15	AI	TAL IRV

Client Sample ID: OC-GW-DPE-5_20160817 — Lab Sample ID: 440-155928-3

Date Collected: 08/17/16 09:30 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351055	08/22/16 23:29	WK	TAL IRV
Total/NA	Analysis	8260B	DL	2	10 mL	10 mL	350675	08/20/16 13:23	RM	TAL IRV
Total/NA	Prep	3520C			1015 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			350526	08/19/16 22:05	AI	TAL IRV

Client Sample ID: OC-GW-DPE-8_20160817 — Lab Sample ID: 440-155928-4

Date Collected: 08/17/16 09:53 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	350675	08/20/16 13:53	RM	TAL IRV
Total/NA	Prep	3520C			1030 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			350526	08/19/16 22:27	AI	TAL IRV

Client Sample ID: OC-GW-OW1B_20160817 — Lab Sample ID: 440-155928-5

Date Collected: 08/17/16 12:58 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	350675	08/20/16 14:23	RM	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			350526	08/19/16 22:50	AI	TAL IRV

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Client Sample ID: OC-GW-OW12_20160817 — Lab Sample ID: 440-155928-6

Date Collected: 08/17/16 14:41 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	351055	08/23/16 00:25	WK	TAL IRV
Total/NA	Analysis	8260B	DL	25	10 mL	10 mL	350675	08/20/16 14:52	RM	TAL IRV
Total/NA	Prep	3520C			1045 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		2			350526	08/19/16 23:12	AI	TAL IRV

Client Sample ID: OC-GW-OW12N_20160817 — Lab Sample ID: 440-155928-7

Date Collected: 08/17/16 14:57 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	350675	08/20/16 15:22	RM	TAL IRV

Client Sample ID: OC-GW-OW12K_20160817 — Lab Sample ID: 440-155928-8

Date Collected: 08/17/16 14:41 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	351055	08/23/16 00:53	WK	TAL IRV
Total/NA	Analysis	8260B	DL	40	10 mL	10 mL	350675	08/20/16 15:52	RM	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	350100	08/18/16 08:07	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		2			350526	08/19/16 23:34	AI	TAL IRV

Client Sample ID: OC-GW-TB_20160817 — Lab Sample ID: 440-155928-9

Date Collected: 08/17/16 08:00 — **Matrix: Water**
Date Received: 08/17/16 19:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	350675	08/20/16 16:22	RM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-350675/6
Matrix: Water
Analysis Batch: 350675

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/20/16 10:26	1
Benzene	ND		0.50	0.25	ug/L			08/20/16 10:26	1
Bromobenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Bromoform	ND		1.0	0.40	ug/L			08/20/16 10:26	1
Bromomethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/20/16 10:26	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Chloroethane	ND		1.0	0.40	ug/L			08/20/16 10:26	1
Chloroform	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Chloromethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 10:26	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/20/16 10:26	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Dibromomethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/20/16 10:26	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/20/16 10:26	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Isopropyl alcohol	ND		250	180	ug/L			08/20/16 10:26	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/20/16 10:26	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/20/16 10:26	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/20/16 10:26	1
Naphthalene	ND		1.0	0.40	ug/L			08/20/16 10:26	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/20/16 10:26	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
o-Xylene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Styrene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1

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

Lab Sample ID: MB 440-350675/6
Matrix: Water
Analysis Batch: 350675

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Toluene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/20/16 10:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 10:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/20/16 10:26	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Trichloroethene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/20/16 10:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/20/16 10:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/20/16 10:26	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/20/16 10:26	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/20/16 10:26*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*08/20/16 10:26*	*1*
Dibromofluoromethane (Surr)	*121*		*76 - 132*		*08/20/16 10:26*	*1*
Toluene-d8 (Surr)	*112*		*80 - 128*		*08/20/16 10:26*	*1*

Lab Sample ID: LCS 440-350675/7
Matrix: Water
Analysis Batch: 350675

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	19.5		ug/L		78	10 - 150
Benzene	25.0	23.0		ug/L		92	68 - 130
Bromobenzene	25.0	24.9		ug/L		100	70 - 130
Bromochloromethane	25.0	25.9		ug/L		104	70 - 130
Bromodichloromethane	25.0	26.6		ug/L		106	70 - 132
Bromoform	25.0	26.7		ug/L		107	60 - 148
Bromomethane	25.0	18.9		ug/L		76	64 - 139
Carbon tetrachloride	25.0	29.5		ug/L		118	60 - 150
Chlorobenzene	25.0	24.4		ug/L		97	70 - 130
Chloroethane	25.0	17.1		ug/L		68	64 - 135
Chloroform	25.0	26.8		ug/L		107	70 - 130
Chloromethane	25.0	16.7		ug/L		67	47 - 140
2-Chlorotoluene	25.0	21.1		ug/L		85	70 - 130
4-Chlorotoluene	25.0	22.2		ug/L		89	70 - 130
cis-1,2-Dichloroethene	25.0	23.5		ug/L		94	70 - 133
cis-1,3-Dichloropropene	25.0	24.0		ug/L		96	70 - 133
Dibromochloromethane	25.0	26.8		ug/L		107	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	22.2		ug/L		89	52 - 140

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

Lab Sample ID: LCS 440-350675/7
Matrix: Water
Analysis Batch: 350675

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	25.0	25.7		ug/L		103	70 - 130
Dibromomethane	25.0	24.3		ug/L		97	70 - 130
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	70 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,4-Dichlorobenzene	25.0	24.6		ug/L		99	70 - 130
Dichlorodifluoromethane	25.0	24.2		ug/L		97	29 - 150
1,1-Dichloroethane	25.0	23.0		ug/L		92	64 - 130
1,2-Dichloroethane	25.0	27.4		ug/L		110	57 - 138
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
1,2-Dichloropropane	25.0	22.1		ug/L		88	67 - 130
1,3-Dichloropropane	25.0	19.8		ug/L		79	70 - 130
2,2-Dichloropropane	25.0	24.4		ug/L		98	68 - 141
1,1-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
Ethylbenzene	25.0	21.0		ug/L		84	70 - 130
Hexachlorobutadiene	25.0	31.9		ug/L		127	10 - 150
Isopropylbenzene	25.0	22.5		ug/L		90	70 - 136
Methylene Chloride	25.0	23.3		ug/L		93	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	24.6		ug/L		98	63 - 131
m,p-Xylene	25.0	22.1		ug/L		88	70 - 130
Naphthalene	25.0	25.7		ug/L		103	60 - 140
n-Butylbenzene	25.0	22.2		ug/L		89	65 - 150
N-Propylbenzene	25.0	20.8		ug/L		83	67 - 139
o-Xylene	25.0	21.9		ug/L		88	70 - 130
p-Isopropyltoluene	25.0	23.2		ug/L		93	70 - 132
sec-Butylbenzene	25.0	21.6		ug/L		87	70 - 138
Styrene	25.0	22.4		ug/L		90	70 - 134
tert-Butylbenzene	25.0	23.1		ug/L		93	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.1		ug/L		109	60 - 141
1,1,2,2-Tetrachloroethane	25.0	18.9		ug/L		75	63 - 130
Tetrachloroethene	25.0	26.9		ug/L		108	70 - 130
Toluene	25.0	21.8		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 132
1,2,3-Trichlorobenzene	25.0	30.7		ug/L		123	60 - 140
1,2,4-Trichlorobenzene	25.0	30.7		ug/L		123	60 - 140
1,1,1-Trichloroethane	25.0	26.9		ug/L		108	70 - 130
1,1,2-Trichloroethane	25.0	20.4		ug/L		82	70 - 130
Trichloroethene	25.0	24.3		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	26.5		ug/L		106	60 - 150
1,2,3-Trichloropropane	25.0	21.6		ug/L		86	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.9		ug/L		96	60 - 140
1,2,4-Trimethylbenzene	25.0	22.5		ug/L		90	70 - 135
1,3,5-Trimethylbenzene	25.0	22.3		ug/L		89	70 - 136
Vinyl chloride	25.0	20.2		ug/L		81	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*

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

Lab Sample ID: LCS 440-350675/7
Matrix: Water
Analysis Batch: 350675

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*120*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-155928-2 MS
Matrix: Water
Analysis Batch: 350675

Client Sample ID: OC-GW-DPE-4_20160817
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		250	153		ug/L		61	10 - 150
Benzene	ND		250	227		ug/L		91	66 - 130
Bromobenzene	ND		250	249		ug/L		100	70 - 130
Bromochloromethane	ND		250	254		ug/L		101	70 - 130
Bromodichloromethane	ND		250	270		ug/L		108	70 - 138
Bromoform	ND		250	260		ug/L		104	59 - 150
Bromomethane	ND		250	210		ug/L		84	62 - 131
Carbon tetrachloride	ND		250	308		ug/L		123	60 - 150
Chlorobenzene	ND		250	249		ug/L		100	70 - 130
Chloroethane	ND		250	183		ug/L		73	68 - 130
Chloroform	35		250	306		ug/L		109	70 - 130
Chloromethane	ND		250	173		ug/L		69	39 - 144
2-Chlorotoluene	ND		250	211		ug/L		84	70 - 130
4-Chlorotoluene	ND		250	223		ug/L		89	70 - 130
cis-1,2-Dichloroethene	ND		250	235		ug/L		94	70 - 130
cis-1,3-Dichloropropene	ND		250	239		ug/L		96	70 - 133
Dibromochloromethane	ND		250	262		ug/L		105	70 - 148
1,2-Dibromo-3-Chloropropane	ND		250	166		ug/L		66	48 - 140
1,2-Dibromoethane (EDB)	ND		250	229		ug/L		92	70 - 131
Dibromomethane	ND		250	230		ug/L		92	70 - 130
1,2-Dichlorobenzene	ND		250	241		ug/L		96	70 - 130
1,3-Dichlorobenzene	ND		250	246		ug/L		98	70 - 130
1,4-Dichlorobenzene	ND		250	243		ug/L		97	70 - 130
Dichlorodifluoromethane	ND		250	260		ug/L		104	25 - 142
1,1-Dichloroethane	ND		250	228		ug/L		91	65 - 130
1,2-Dichloroethane	11		250	291		ug/L		112	56 - 146
1,1-Dichloroethene	15		250	254		ug/L		96	70 - 130
1,2-Dichloropropane	ND		250	209		ug/L		84	69 - 130
1,3-Dichloropropane	ND		250	190		ug/L		76	70 - 130
2,2-Dichloropropane	ND		250	251		ug/L		101	69 - 138
1,1-Dichloropropene	ND		250	240		ug/L		96	64 - 130
Ethylbenzene	ND		250	230		ug/L		92	70 - 130
Hexachlorobutadiene	ND		250	296		ug/L		118	10 - 150
Isopropylbenzene	ND		250	246		ug/L		99	70 - 132
Methylene Chloride	ND		250	229		ug/L		92	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		250	236		ug/L		94	70 - 130
m,p-Xylene	ND		250	247		ug/L		99	70 - 133
Naphthalene	ND		250	218		ug/L		87	60 - 140
n-Butylbenzene	ND		250	209		ug/L		84	61 - 149
N-Propylbenzene	ND		250	203		ug/L		81	66 - 135

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

Lab Sample ID: 440-155928-2 MS
Matrix: Water
Analysis Batch: 350675

Client Sample ID: OC-GW-DPE-4_20160817
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	ND		250	247		ug/L		99	70 - 133
p-Isopropyltoluene	ND		250	229		ug/L		91	70 - 130
sec-Butylbenzene	ND		250	207		ug/L		83	67 - 134
Styrene	ND		250	253		ug/L		101	29 - 150
tert-Butylbenzene	ND		250	227		ug/L		91	70 - 130
1,1,1,2-Tetrachloroethane	ND		250	283		ug/L		113	60 - 149
1,1,2,2-Tetrachloroethane	ND		250	164		ug/L		65	63 - 130
Tetrachloroethene	1300		250	1560	4	ug/L		91	70 - 137
Toluene	ND		250	228		ug/L		91	70 - 130
trans-1,2-Dichloroethene	ND		250	242		ug/L		97	70 - 130
trans-1,3-Dichloropropene	ND		250	242		ug/L		97	70 - 138
1,2,3-Trichlorobenzene	ND		250	282		ug/L		113	60 - 140
1,2,4-Trichlorobenzene	ND		250	291		ug/L		116	60 - 140
1,1,1-Trichloroethane	ND		250	294		ug/L		117	70 - 130
1,1,2-Trichloroethane	ND		250	196		ug/L		79	70 - 130
Trichloroethene	46		250	294		ug/L		99	70 - 130
Trichlorofluoromethane	7.7	J	250	291		ug/L		113	60 - 150
1,2,3-Trichloropropane	ND		250	179		ug/L		72	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	170		250	403		ug/L		93	60 - 140
1,2,4-Trimethylbenzene	ND		250	228		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	ND		250	223		ug/L		89	70 - 130
Vinyl chloride	ND		250	198		ug/L		79	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*119*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Lab Sample ID: 440-155928-2 MSD
Matrix: Water
Analysis Batch: 350675

Client Sample ID: OC-GW-DPE-4_20160817
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		250	175		ug/L		70	10 - 150	13	35
Benzene	ND		250	234		ug/L		94	66 - 130	3	20
Bromobenzene	ND		250	254		ug/L		102	70 - 130	2	20
Bromochloromethane	ND		250	264		ug/L		105	70 - 130	4	25
Bromodichloromethane	ND		250	276		ug/L		110	70 - 138	2	20
Bromoform	ND		250	273		ug/L		109	59 - 150	5	25
Bromomethane	ND		250	212		ug/L		85	62 - 131	1	25
Carbon tetrachloride	ND		250	290		ug/L		116	60 - 150	6	25
Chlorobenzene	ND		250	243		ug/L		97	70 - 130	2	20
Chloroethane	ND		250	189		ug/L		76	68 - 130	3	25
Chloroform	35		250	306		ug/L		108	70 - 130	0	20
Chloromethane	ND		250	169		ug/L		68	39 - 144	2	25
2-Chlorotoluene	ND		250	215		ug/L		86	70 - 130	2	20
4-Chlorotoluene	ND		250	226		ug/L		90	70 - 130	1	20

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

Lab Sample ID: 440-155928-2 MSD
Matrix: Water
Analysis Batch: 350675

Client Sample ID: OC-GW-DPE-4_20160817
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	ND		250	240		ug/L		96	70 - 130	2	20
cis-1,3-Dichloropropene	ND		250	249		ug/L		100	70 - 133	4	20
Dibromochloromethane	ND		250	268		ug/L		107	70 - 148	3	25
1,2-Dibromo-3-Chloropropane	ND		250	163		ug/L		65	48 - 140	2	30
1,2-Dibromoethane (EDB)	ND		250	241		ug/L		96	70 - 131	5	25
Dibromomethane	ND		250	238		ug/L		95	70 - 130	3	25
1,2-Dichlorobenzene	ND		250	255		ug/L		102	70 - 130	5	20
1,3-Dichlorobenzene	ND		250	246		ug/L		99	70 - 130	0	20
1,4-Dichlorobenzene	ND		250	249		ug/L		99	70 - 130	2	20
Dichlorodifluoromethane	ND		250	242		ug/L		97	25 - 142	7	30
1,1-Dichloroethane	ND		250	238		ug/L		95	65 - 130	4	20
1,2-Dichloroethane	11		250	292		ug/L		112	56 - 146	0	20
1,1-Dichloroethene	15		250	244		ug/L		92	70 - 130	4	20
1,2-Dichloropropane	ND		250	235		ug/L		94	69 - 130	12	20
1,3-Dichloropropane	ND		250	194		ug/L		78	70 - 130	2	25
2,2-Dichloropropane	ND		250	241		ug/L		96	69 - 138	4	25
1,1-Dichloropropene	ND		250	233		ug/L		93	64 - 130	3	20
Ethylbenzene	ND		250	234		ug/L		93	70 - 130	1	20
Hexachlorobutadiene	ND		250	296		ug/L		118	10 - 150	0	20
Isopropylbenzene	ND		250	244		ug/L		98	70 - 132	1	20
Methylene Chloride	ND		250	213		ug/L		85	52 - 130	7	20
Methyl-t-Butyl Ether (MTBE)	ND		250	248		ug/L		99	70 - 130	5	25
m,p-Xylene	ND		250	247		ug/L		99	70 - 133	0	25
Naphthalene	ND		250	230		ug/L		92	60 - 140	5	30
n-Butylbenzene	ND		250	212		ug/L		85	61 - 149	1	20
N-Propylbenzene	ND		250	207		ug/L		83	66 - 135	2	20
o-Xylene	ND		250	251		ug/L		101	70 - 133	2	20
p-Isopropyltoluene	ND		250	226		ug/L		90	70 - 130	1	20
sec-Butylbenzene	ND		250	210		ug/L		84	67 - 134	1	20
Styrene	ND		250	261		ug/L		104	29 - 150	3	35
tert-Butylbenzene	ND		250	226		ug/L		91	70 - 130	0	20
1,1,1,2-Tetrachloroethane	ND		250	274		ug/L		110	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		250	174		ug/L		70	63 - 130	6	30
Tetrachloroethene	1300		250	1470	4	ug/L		57	70 - 137	6	20
Toluene	ND		250	232		ug/L		93	70 - 130	2	20
trans-1,2-Dichloroethene	ND		250	253		ug/L		101	70 - 130	4	20
trans-1,3-Dichloropropene	ND		250	242		ug/L		97	70 - 138	0	25
1,2,3-Trichlorobenzene	ND		250	292		ug/L		117	60 - 140	4	20
1,2,4-Trichlorobenzene	ND		250	298		ug/L		119	60 - 140	2	20
1,1,1-Trichloroethane	ND		250	278		ug/L		111	70 - 130	6	20
1,1,2-Trichloroethane	ND		250	203		ug/L		81	70 - 130	3	25
Trichloroethene	46		250	295		ug/L		99	70 - 130	0	20
Trichlorofluoromethane	7.7	J	250	292		ug/L		114	60 - 150	0	25
1,2,3-Trichloropropane	ND		250	178		ug/L		71	60 - 130	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	170		250	381		ug/L		84	60 - 140	6	20
1,2,4-Trimethylbenzene	ND		250	229		ug/L		92	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		250	227		ug/L		91	70 - 130	2	20

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

Lab Sample ID: 440-155928-2 MSD — **Client Sample ID: OC-GW-DPE-4_20160817**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	ND		250	195		ug/L		78	50 - 137	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*122*		*76 - 132*
Toluene-d8 (Surr)	*108*		*80 - 128*

Lab Sample ID: MB 440-351055/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351055

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/22/16 20:13	1
Benzene	ND		0.50	0.25	ug/L			08/22/16 20:13	1
Bromobenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Bromoform	ND		1.0	0.40	ug/L			08/22/16 20:13	1
Bromomethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/22/16 20:13	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Chloroethane	ND		1.0	0.40	ug/L			08/22/16 20:13	1
Chloroform	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Chloromethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 20:13	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/22/16 20:13	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Dibromomethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/22/16 20:13	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/22/16 20:13	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Isopropyl alcohol	ND		250	180	ug/L			08/22/16 20:13	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/22/16 20:13	1

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

Lab Sample ID: MB 440-351055/4
Matrix: Water
Analysis Batch: 351055

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/22/16 20:13	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/22/16 20:13	1
Naphthalene	ND		1.0	0.40	ug/L			08/22/16 20:13	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/22/16 20:13	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
o-Xylene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Styrene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Toluene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/22/16 20:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 20:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/22/16 20:13	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Trichloroethene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/22/16 20:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/22/16 20:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/22/16 20:13	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/22/16 20:13	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Nitropropane	*0.000*	*J N*	*ug/L*			*79-46-9*		*08/22/16 20:13*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/22/16 20:13*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/22/16 20:13*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/22/16 20:13*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/22/16 20:13*	*1*

Lab Sample ID: LCS 440-351055/5
Matrix: Water
Analysis Batch: 351055

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	24.8		ug/L		99	10 - 150
Benzene	25.0	25.2		ug/L		101	68 - 130
Bromobenzene	25.0	26.6		ug/L		107	70 - 130
Bromochloromethane	25.0	27.6		ug/L		110	70 - 130
Bromodichloromethane	25.0	26.6		ug/L		106	70 - 132

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

Lab Sample ID: LCS 440-351055/5
Matrix: Water
Analysis Batch: 351055

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	25.0	26.0		ug/L		104	60 - 148
Bromomethane	25.0	24.6		ug/L		98	64 - 139
Carbon tetrachloride	25.0	23.2		ug/L		93	60 - 150
Chlorobenzene	25.0	25.0		ug/L		100	70 - 130
Chloroethane	25.0	24.6		ug/L		98	64 - 135
Chloroform	25.0	25.4		ug/L		102	70 - 130
Chloromethane	25.0	22.5		ug/L		90	47 - 140
2-Chlorotoluene	25.0	25.5		ug/L		102	70 - 130
4-Chlorotoluene	25.0	25.9		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 133
cis-1,3-Dichloropropene	25.0	27.5		ug/L		110	70 - 133
Dibromochloromethane	25.0	26.5		ug/L		106	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	24.7		ug/L		99	52 - 140
1,2-Dibromoethane (EDB)	25.0	26.7		ug/L		107	70 - 130
Dibromomethane	25.0	26.6		ug/L		107	70 - 130
1,2-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	25.4		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	20.6		ug/L		82	29 - 150
1,1-Dichloroethane	25.0	24.7		ug/L		99	64 - 130
1,2-Dichloroethane	25.0	26.2		ug/L		105	57 - 138
1,1-Dichloroethene	25.0	22.7		ug/L		91	70 - 130
1,2-Dichloropropane	25.0	27.0		ug/L		108	67 - 130
1,3-Dichloropropane	25.0	26.5		ug/L		106	70 - 130
2,2-Dichloropropane	25.0	23.6		ug/L		94	68 - 141
1,1-Dichloropropene	25.0	23.2		ug/L		93	70 - 130
Ethylbenzene	25.0	23.9		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 136
Methylene Chloride	25.0	26.5		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	27.2		ug/L		109	63 - 131
m,p-Xylene	25.0	25.4		ug/L		102	70 - 130
Naphthalene	25.0	29.9		ug/L		120	60 - 140
n-Butylbenzene	25.0	25.0		ug/L		100	65 - 150
N-Propylbenzene	25.0	25.5		ug/L		102	67 - 139
o-Xylene	25.0	25.2		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	25.5		ug/L		102	70 - 132
sec-Butylbenzene	25.0	25.0		ug/L		100	70 - 138
Styrene	25.0	26.0		ug/L		104	70 - 134
tert-Butylbenzene	25.0	25.4		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.5		ug/L		102	60 - 141
1,1,2,2-Tetrachloroethane	25.0	25.2		ug/L		101	63 - 130
Tetrachloroethene	25.0	23.4		ug/L		93	70 - 130
Toluene	25.0	24.6		ug/L		99	70 - 130
trans-1,2-Dichloroethene	25.0	25.9		ug/L		104	70 - 130
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	70 - 132
1,2,3-Trichlorobenzene	25.0	29.5		ug/L		118	60 - 140
1,2,4-Trichlorobenzene	25.0	28.4		ug/L		114	60 - 140

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

Lab Sample ID: LCS 440-351055/5
Matrix: Water
Analysis Batch: 351055

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.9		ug/L		92	70 - 130
1,1,2-Trichloroethane	25.0	26.0		ug/L		104	70 - 130
Trichloroethene	25.0	25.1		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	21.8		ug/L		87	60 - 150
1,2,3-Trichloropropane	25.0	24.2		ug/L		97	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.5		ug/L		90	60 - 140
1,2,4-Trimethylbenzene	25.0	26.3		ug/L		105	70 - 135
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 136
Vinyl chloride	25.0	22.2		ug/L		89	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Lab Sample ID: LCS 440-351055/6
Matrix: Water
Analysis Batch: 351055

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	298		ug/L		119	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-155629-B-1 MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	34.5		ug/L		138	10 - 150
Benzene	ND		25.0	26.0		ug/L		104	66 - 130
Bromobenzene	ND		25.0	27.1		ug/L		108	70 - 130
Bromochloromethane	ND		25.0	28.0		ug/L		112	70 - 130
Bromodichloromethane	ND		25.0	27.6		ug/L		110	70 - 138
Bromoform	ND		25.0	26.3		ug/L		105	59 - 150
Bromomethane	ND		25.0	24.9		ug/L		99	62 - 131
Carbon tetrachloride	ND		25.0	24.2		ug/L		97	60 - 150
Chlorobenzene	0.42	J	25.0	25.6		ug/L		101	70 - 130
Chloroethane	ND		25.0	24.5		ug/L		98	68 - 130
Chloroform	ND		25.0	25.9		ug/L		103	70 - 130
Chloromethane	ND		25.0	23.7		ug/L		95	39 - 144
2-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130
cis-1,2-Dichloroethene	54		25.0	79.0		ug/L		99	70 - 130

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

Lab Sample ID: 440-155629-B-1 MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	70 - 133
Dibromochloromethane	ND		25.0	26.9		ug/L		108	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	26.2		ug/L		105	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.0		ug/L		108	70 - 131
Dibromomethane	ND		25.0	27.2		ug/L		109	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.8		ug/L		107	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130
1,4-Dichlorobenzene	6.0		25.0	32.0		ug/L		104	70 - 130
Dichlorodifluoromethane	5.6		25.0	26.7		ug/L		84	25 - 142
1,1-Dichloroethane	1.7		25.0	26.8		ug/L		100	65 - 130
1,2-Dichloroethane	0.38	J	25.0	27.6		ug/L		109	56 - 146
1,1-Dichloroethene	0.30	J	25.0	28.6		ug/L		113	70 - 130
1,2-Dichloropropane	ND		25.0	27.8		ug/L		111	69 - 130
1,3-Dichloropropane	ND		25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	ND		25.0	24.0		ug/L		96	69 - 138
1,1-Dichloropropene	ND		25.0	24.5		ug/L		98	64 - 130
Ethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130
Hexachlorobutadiene	ND		25.0	26.6		ug/L		106	10 - 150
Isopropyl alcohol	ND		250	322		ug/L		129	46 - 142
Isopropylbenzene	ND		25.0	25.9		ug/L		103	70 - 132
Methylene Chloride	ND		25.0	26.8		ug/L		107	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.9		ug/L		112	70 - 130
m,p-Xylene	ND		25.0	26.0		ug/L		104	70 - 133
Naphthalene	ND		25.0	31.7		ug/L		127	60 - 140
n-Butylbenzene	ND		25.0	26.7		ug/L		107	61 - 149
N-Propylbenzene	ND		25.0	26.6		ug/L		106	66 - 135
o-Xylene	ND		25.0	25.9		ug/L		104	70 - 133
p-Isopropyltoluene	ND		25.0	26.8		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	25.9		ug/L		104	67 - 134
Styrene	ND		25.0	26.3		ug/L		105	29 - 150
tert-Butylbenzene	ND		25.0	26.5		ug/L		106	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	25.5		ug/L		102	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	26.4		ug/L		106	63 - 130
Tetrachloroethene	6.3		25.0	29.8		ug/L		94	70 - 137
Toluene	ND		25.0	24.9		ug/L		100	70 - 130
trans-1,2-Dichloroethene	0.84	J	25.0	27.4		ug/L		106	70 - 130
trans-1,3-Dichloropropene	ND		25.0	27.5		ug/L		110	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	30.2		ug/L		121	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	30.5		ug/L		122	60 - 140
1,1,1-Trichloroethane	ND		25.0	23.6		ug/L		94	70 - 130
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130
Trichloroethene	17		25.0	42.2		ug/L		100	70 - 130
Trichlorofluoromethane	ND		25.0	22.5		ug/L		90	60 - 150
1,2,3-Trichloropropane	ND		25.0	25.3		ug/L		101	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.9		ug/L		96	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	27.3		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.9		ug/L		108	70 - 130

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

Lab Sample ID: 440-155629-B-1 MS
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.95		25.0	24.3		ug/L		94	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

Lab Sample ID: 440-155629-B-1 MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	29.5		ug/L		118	10 - 150	16	35
Benzene	ND		25.0	25.9		ug/L		104	66 - 130	0	20
Bromobenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
Bromochloromethane	ND		25.0	27.2		ug/L		109	70 - 130	3	25
Bromodichloromethane	ND		25.0	27.2		ug/L		109	70 - 138	1	20
Bromoform	ND		25.0	25.3		ug/L		101	59 - 150	4	25
Bromomethane	ND		25.0	25.2		ug/L		101	62 - 131	1	25
Carbon tetrachloride	ND		25.0	24.3		ug/L		97	60 - 150	0	25
Chlorobenzene	0.42	J	25.0	25.5		ug/L		100	70 - 130	0	20
Chloroethane	ND		25.0	24.3		ug/L		97	68 - 130	0	25
Chloroform	ND		25.0	25.5		ug/L		102	70 - 130	1	20
Chloromethane	ND		25.0	23.1		ug/L		92	39 - 144	2	25
2-Chlorotoluene	ND		25.0	26.2		ug/L		105	70 - 130	0	20
4-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130	2	20
cis-1,2-Dichloroethene	54		25.0	78.8		ug/L		98	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 133	1	20
Dibromochloromethane	ND		25.0	25.7		ug/L		103	70 - 148	4	25
1,2-Dibromo-3-Chloropropane	ND		25.0	23.5		ug/L		94	48 - 140	11	30
1,2-Dibromoethane (EDB)	ND		25.0	26.4		ug/L		105	70 - 131	2	25
Dibromomethane	ND		25.0	26.1		ug/L		104	70 - 130	4	25
1,2-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	2	20
1,4-Dichlorobenzene	6.0		25.0	31.6		ug/L		102	70 - 130	1	20
Dichlorodifluoromethane	5.6		25.0	27.6		ug/L		88	25 - 142	3	30
1,1-Dichloroethane	1.7		25.0	26.7		ug/L		100	65 - 130	0	20
1,2-Dichloroethane	0.38	J	25.0	26.0		ug/L		103	56 - 146	6	20
1,1-Dichloroethene	0.30	J	25.0	28.2		ug/L		111	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	27.5		ug/L		110	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	26.3		ug/L		105	70 - 130	1	25
2,2-Dichloropropane	ND		25.0	24.1		ug/L		96	69 - 138	0	25
1,1-Dichloropropene	ND		25.0	24.6		ug/L		98	64 - 130	0	20
Ethylbenzene	ND		25.0	24.9		ug/L		99	70 - 130	1	20
Hexachlorobutadiene	ND		25.0	26.2		ug/L		105	10 - 150	2	20
Isopropyl alcohol	ND		250	321		ug/L		128	46 - 142	0	40
Isopropylbenzene	ND		25.0	26.2		ug/L		105	70 - 132	1	20
Methylene Chloride	ND		25.0	26.5		ug/L		106	52 - 130	1	20

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

Lab Sample ID: 440-155629-B-1 MSD
Matrix: Water
Analysis Batch: 351055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.2		ug/L		105	70 - 130	6	25
m,p-Xylene	ND		25.0	25.9		ug/L		104	70 - 133	0	25
Naphthalene	ND		25.0	28.6		ug/L		114	60 - 140	10	30
n-Butylbenzene	ND		25.0	26.4		ug/L		106	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.4		ug/L		106	66 - 135	1	20
o-Xylene	ND		25.0	25.9		ug/L		103	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	26.6		ug/L		107	70 - 130	1	20
sec-Butylbenzene	ND		25.0	25.8		ug/L		103	67 - 134	0	20
Styrene	ND		25.0	26.2		ug/L		105	29 - 150	1	35
tert-Butylbenzene	ND		25.0	26.2		ug/L		105	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	25.5		ug/L		102	60 - 149	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	23.7		ug/L		95	63 - 130	11	30
Tetrachloroethene	6.3		25.0	30.6		ug/L		97	70 - 137	3	20
Toluene	ND		25.0	25.3		ug/L		101	70 - 130	2	20
trans-1,2-Dichloroethene	0.84	J	25.0	27.8		ug/L		108	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	29.0		ug/L		116	60 - 140	4	20
1,2,4-Trichlorobenzene	ND		25.0	29.2		ug/L		117	60 - 140	4	20
1,1,1-Trichloroethane	ND		25.0	23.5		ug/L		94	70 - 130	1	20
1,1,2-Trichloroethane	ND		25.0	25.4		ug/L		102	70 - 130	4	25
Trichloroethene	17		25.0	42.4		ug/L		101	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	22.2		ug/L		89	60 - 150	2	25
1,2,3-Trichloropropane	ND		25.0	23.3		ug/L		93	60 - 130	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	23.8		ug/L		95	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130	1	25
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130	1	20
Vinyl chloride	0.95		25.0	24.3		ug/L		93	50 - 137	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-350100/1-A
Matrix: Water
Analysis Batch: 350526

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/18/16 08:07	08/19/16 16:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*57*		*36 - 90*	*08/18/16 08:07*	*08/19/16 16:27*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 440-350100/2-A
Matrix: Water
Analysis Batch: 350526

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350100

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.23		ug/L		62	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*56*		*36 - 90*

Lab Sample ID: LCSD 440-350100/3-A
Matrix: Water
Analysis Batch: 350526

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350100

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.22		ug/L		61	36 - 120	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*57*		*36 - 90*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

GC/MS VOA

Analysis Batch: 350675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155928-1 - DL	OC-GW-DPE-3_20160817	Total/NA	Water	8260B	
440-155928-2 - DL	OC-GW-DPE-4_20160817	Total/NA	Water	8260B	
440-155928-3 - DL	OC-GW-DPE-5_20160817	Total/NA	Water	8260B	
440-155928-4	OC-GW-DPE-8_20160817	Total/NA	Water	8260B	
440-155928-5	OC-GW-OW1B_20160817	Total/NA	Water	8260B	
440-155928-6 - DL	OC-GW-OW12_20160817	Total/NA	Water	8260B	
440-155928-7	OC-GW-OW12N_20160817	Total/NA	Water	8260B	
440-155928-8 - DL	OC-GW-OW12K_20160817	Total/NA	Water	8260B	
440-155928-9	OC-GW-TB_20160817	Total/NA	Water	8260B	
MB 440-350675/6	Method Blank	Total/NA	Water	8260B	
LCS 440-350675/7	Lab Control Sample	Total/NA	Water	8260B	
440-155928-2 MS	OC-GW-DPE-4_20160817	Total/NA	Water	8260B	
440-155928-2 MSD	OC-GW-DPE-4_20160817	Total/NA	Water	8260B	

Analysis Batch: 351055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155928-1	OC-GW-DPE-3_20160817	Total/NA	Water	8260B	
440-155928-2	OC-GW-DPE-4_20160817	Total/NA	Water	8260B	
440-155928-3	OC-GW-DPE-5_20160817	Total/NA	Water	8260B	
440-155928-6	OC-GW-OW12_20160817	Total/NA	Water	8260B	
440-155928-8	OC-GW-OW12K_20160817	Total/NA	Water	8260B	
MB 440-351055/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351055/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-351055/6	Lab Control Sample	Total/NA	Water	8260B	
440-155629-B-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-155629-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 350100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155928-1	OC-GW-DPE-3_20160817	Total/NA	Water	3520C	
440-155928-2	OC-GW-DPE-4_20160817	Total/NA	Water	3520C	
440-155928-3	OC-GW-DPE-5_20160817	Total/NA	Water	3520C	
440-155928-4	OC-GW-DPE-8_20160817	Total/NA	Water	3520C	
440-155928-5	OC-GW-OW1B_20160817	Total/NA	Water	3520C	
440-155928-6	OC-GW-OW12_20160817	Total/NA	Water	3520C	
440-155928-8	OC-GW-OW12K_20160817	Total/NA	Water	3520C	
MB 440-350100/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350100/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350100/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 350526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155928-3	OC-GW-DPE-5_20160817	Total/NA	Water	8270C SIM	350100
440-155928-4	OC-GW-DPE-8_20160817	Total/NA	Water	8270C SIM	350100
440-155928-5	OC-GW-OW1B_20160817	Total/NA	Water	8270C SIM	350100
440-155928-6	OC-GW-OW12_20160817	Total/NA	Water	8270C SIM	350100
440-155928-8	OC-GW-OW12K_20160817	Total/NA	Water	8270C SIM	350100
MB 440-350100/1-A	Method Blank	Total/NA	Water	8270C SIM	350100

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

GC/MS Semi VOA (Continued)

Analysis Batch: 350526 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-350100/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	350100
LCSD 440-350100/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	350100

Analysis Batch: 350992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155928-1	OC-GW-DPE-3_20160817	Total/NA	Water	8270C SIM	350100
440-155928-2	OC-GW-DPE-4_20160817	Total/NA	Water	8270C SIM	350100

Definitions/Glossary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Qualifiers

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.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: de maximis, inc.
Project/Site: Omega Chemical - GWM Semi

TestAmerica Job ID: 440-155928-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/17/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier: Efren	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - [redacted] GWM Semi	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G / E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE3_20160817	8/17/16	0900	Grab	GW	5			x	x	
OC_GW_DPE4_20160817	"	0914	Grab	GW	5			x	x	
OC_GW_DPE5_20160817	"	0930	Grab	GW	5			x	x	
OC_GW_DPE8_20160817	"	0953	Grab	GW	5			x	x	
OC_GW_OW1B_20160817	"	1258	Grab	GW	5			x	x	
OC_GW_OW12_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_OW12N_20160817	"	1457	Grab	GW	5			x		
OC_GW_OW12K_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_TB_20160817	8/17/16	0800	Grab	H2O	3			x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flamma ☐ ~~Skin~~ ☐ ~~Poison B~~ ☐ ~~Unknown~~

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	HA	8/17/16 1530			8.19.16 15:30
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/17/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier: Ethan	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - [redacted] GWM Semi	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
PO #: 3139G / 6742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE3_20160817	8/17/16	0900	Grab	GW	5			x	x	
OC_GW_DPE4_20160817	"	0914	Grab	GW	5			x	x	
OC_GW_DPE5_20160817	"	0930	Grab	GW	5			x	x	
OC_GW_DPE8_20160817	"	0953	Grab	GW	5			x	x	
OC_GW_OW1B_20160817	"	1258	Grab	GW	5			x	x	
OC_GW_OW12_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_OW12N_20160817	"	1457	Grab	GW	5			x	x	
OC_GW_OW12K_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_TB_20160817	8/17/16	0800	Grab	H2O	3			x		

440-155928 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flamma ☐ Skin ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JWA	8/17/16 1530	[signature]	TAI	8/17/16 15:30
[signature]	TAI	8/17/16 18:10			
			Received in Laboratory by: [signature]	TAI	8/17/16 18:10

2.8°C / 2.0°C IR-74

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-155928-1

Login Number: 155928
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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: 440-156057-1
Client Project/Site: Omega Chemical Wastewater

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
8/29/2016 3:05:56 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

LINKS

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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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-156057-1	Composite Sample	Water	08/18/16 15:38	08/18/16 19:00
440-156057-2	Grab Sample	Water	08/18/16 15:40	08/18/16 19:00

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Job ID: 440-156057-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-156057-1

Comments
No additional comments.

Receipt
The samples were received on 8/18/2016 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

GC/MS VOA

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350500 and analytical batch 440-350992. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350985 and analytical batch 440-351586. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Composite Sample

Lab Sample ID: 440-156057-1
Date Collected: 08/18/16 15:38
Matrix: Water
Date Received: 08/18/16 19:00

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	40		10	mg/L			08/24/16 13:42	1
Total Suspended Solids	1.6		1.0	mg/L			08/22/16 13:50	1

Client Sample ID: Grab Sample

Lab Sample ID: 440-156057-2
Date Collected: 08/18/16 15:40
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			08/24/16 05:53	1
Acrolein	ND		5.0	ug/L			08/24/16 04:22	1
Acrylonitrile	ND		2.0	ug/L			08/24/16 04:22	1
Benzene	ND		0.50	ug/L			08/24/16 05:53	1
Bromobenzene	ND		1.0	ug/L			08/24/16 05:53	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/24/16 04:22	1
Bromochloromethane	ND		1.0	ug/L			08/24/16 05:53	1
Bromodichloromethane	ND		1.0	ug/L			08/24/16 05:53	1
Bromoform	ND		1.0	ug/L			08/24/16 05:53	1
Total Volatile Organic Compounds	ND		150	ug/L			08/24/16 04:22	1
Bromomethane	ND		1.0	ug/L			08/24/16 05:53	1
Carbon tetrachloride	ND		0.50	ug/L			08/24/16 05:53	1
Chlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
Chloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Chloroform	ND		1.0	ug/L			08/24/16 05:53	1
Chloromethane	ND		1.0	ug/L			08/24/16 05:53	1
2-Chlorotoluene	ND		1.0	ug/L			08/24/16 05:53	1
4-Chlorotoluene	ND		1.0	ug/L			08/24/16 05:53	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			08/24/16 05:53	1
Dibromochloromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			08/24/16 05:53	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			08/24/16 05:53	1
Dibromomethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,3-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,4-Dichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
Dichlorodifluoromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
1,2-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,3-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
2,2-Dichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,1-Dichloropropene	ND		1.0	ug/L			08/24/16 05:53	1
Ethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Hexachlorobutadiene	ND		1.0	ug/L			08/24/16 05:53	1
Isopropylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Methylene Chloride	ND		5.0	ug/L			08/24/16 05:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			08/24/16 05:53	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			08/24/16 05:53	1
Naphthalene	ND		1.0	ug/L			08/24/16 05:53	1
n-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
N-Propylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
o-Xylene	ND		1.0	ug/L			08/24/16 05:53	1
p-Isopropyltoluene	ND		1.0	ug/L			08/24/16 05:53	1
sec-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Styrene	ND		1.0	ug/L			08/24/16 05:53	1
tert-Butylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Tetrachloroethene	ND		1.0	ug/L			08/24/16 05:53	1
Toluene	ND		1.0	ug/L			08/24/16 05:53	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/24/16 05:53	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/24/16 05:53	1
Trichloroethene	ND		1.0	ug/L			08/24/16 05:53	1
Trichlorofluoromethane	ND		1.0	ug/L			08/24/16 05:53	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/24/16 05:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/24/16 05:53	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/24/16 05:53	1
Vinyl chloride	ND		0.50	ug/L			08/24/16 05:53	1
Isopropyl alcohol	ND		250	ug/L			08/24/16 05:53	1
Total Volatile Organic Compounds	**160**		150	ug/L			08/24/16 05:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/24/16 04:22*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*08/24/16 04:22*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/24/16 05:53*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*08/24/16 04:22*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*08/24/16 05:53*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*08/24/16 05:53*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**36**		2.5	ug/L		08/19/16 11:45	08/22/16 14:45	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*61*		*36 - 90*	*08/19/16 11:45*	*08/22/16 14:45*	*5*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,2-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
1,4-Dichlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4,5-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4,6-Trichlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dichlorophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dimethylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dinitrophenol	ND		39	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,4-Dinitrotoluene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2,6-Dinitrotoluene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Chloronaphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Chlorophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Methylnaphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Methylphenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
2-Nitrophenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
3,3'-Dichlorobenzidine	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
3-Methylphenol + 4-Methylphenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
3-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4,6-Dinitro-2-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Bromophenyl phenyl ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chloro-3-methylphenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chloroaniline	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Chlorophenyl phenyl ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Nitroaniline	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
4-Nitrophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Acenaphthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Acenaphthylene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Aniline	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Anthracene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzidine	ND		39	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[a]anthracene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[a]pyrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[b]fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[g,h,i]perylene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzo[k]fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzoic acid	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Benzyl alcohol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
bis (2-chloroisopropyl) ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-chloroethoxy)methane	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-chloroethyl)ether	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Bis(2-ethylhexyl) phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Butyl benzyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Chrysene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dibenz(a,h)anthracene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dibenzofuran	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Diethyl phthalate	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Dimethyl phthalate	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Di-n-butyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Di-n-octyl phthalate	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Grab Sample

Date Collected: 08/18/16 15:40
Date Received: 08/18/16 19:00

Lab Sample ID: 440-156057-2

Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Fluorene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorobenzene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorobutadiene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachlorocyclopentadiene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Hexachloroethane	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Indeno[1,2,3-cd]pyrene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Isophorone	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Naphthalene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Nitrobenzene	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodimethylamine	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodi-n-propylamine	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
N-Nitrosodiphenylamine	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Pentachlorophenol	ND		20	ug/L		08/22/16 11:04	08/24/16 18:57	1
Phenanthrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Phenol	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1
Pyrene	ND		9.8	ug/L		08/22/16 11:04	08/24/16 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
2-Fluorobiphenyl	*75*		*50 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
2-Fluorophenol (Surr)	*68*		*30 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Nitrobenzene-d5 (Surr)	*73*		*45 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Phenol-d6 (Surr)	*71*		*35 - 120*	*08/22/16 11:04*	*08/24/16 18:57*	*1*
Terphenyl-d14 (Surr)	*80*		*10 - 150*	*08/22/16 11:04*	*08/24/16 18:57*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.6**	**HF**	0.1	SU			08/19/16 12:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND	HF	0.050	mg/L		08/23/16 20:05	08/23/16 22:21	1

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV
5220D-2011	Chemical Oxygen Demand	SM	TAL SAV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 4500 S2 D	Sulfide, Total	SM	TAL IRV

Protocol References:

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

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Client Sample ID: Composite Sample — Lab Sample ID: 440-156057-1

Date Collected: 08/18/16 15:38 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	5220D-2011		1	2 mL	2 mL	447123	08/24/16 13:42	JER	TAL SAV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	351035	08/22/16 13:50	MMH	TAL IRV

Client Sample ID: Grab Sample — Lab Sample ID: 440-156057-2

Date Collected: 08/18/16 15:40 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351362	08/24/16 04:22	WK	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 05:53	AA	TAL IRV
Total/NA	Prep	3520C			1025 mL	2 mL	350985	08/22/16 11:04	BMN	TAL IRV
Total/NA	Analysis	8270C		1			351586	08/24/16 18:57	DF	TAL IRV
Total/NA	Prep	3520C			1020 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		5			350992	08/22/16 14:45	AI	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			350476	08/19/16 12:41	ST	TAL IRV
Dissolved	Prep	SM 4500 S2 B			40 mL	40 mL	351422	08/23/16 20:05	EN	TAL IRV
Dissolved	Analysis	SM 4500 S2 D		1	7.5 mL	7.5 mL	351424	08/23/16 22:21	EN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022
TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-351362/4
Matrix: Water
Analysis Batch: 351362

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		5.0	ug/L			08/23/16 19:37	1
Acrylonitrile	ND		2.0	ug/L			08/23/16 19:37	1
2-Chloroethyl vinyl ether	ND		2.0	ug/L			08/23/16 19:37	1
Total Volatile Organic Compounds	ND		150	ug/L			08/23/16 19:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/23/16 19:37*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*08/23/16 19:37*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/23/16 19:37*	*1*

Lab Sample ID: LCS 440-351362/5
Matrix: Water
Analysis Batch: 351362

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	25.0	18.2		ug/L		73	10 - 145
Acrylonitrile	250	221		ug/L		89	48 - 140
2-Chloroethyl vinyl ether	25.0	27.1		ug/L		108	37 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Lab Sample ID: 440-155926-A-4 MS
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acrolein	ND		50.0	41.2		ug/L		82	10 - 147
Acrylonitrile	ND		500	454		ug/L		91	38 - 144
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-155926-A-4 MSD
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acrolein	ND		50.0	38.7		ug/L		77	10 - 147	6	40
Acrylonitrile	ND		500	429		ug/L		86	38 - 144	6	40
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 140	NC	35

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

Lab Sample ID: 440-155926-A-4 MSD
Matrix: Water
Analysis Batch: 351362

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			08/23/16 19:38	1
Benzene	ND		0.50		ug/L			08/23/16 19:38	1
Bromobenzene	ND		1.0		ug/L			08/23/16 19:38	1
Bromochloromethane	ND		1.0		ug/L			08/23/16 19:38	1
Bromodichloromethane	ND		1.0		ug/L			08/23/16 19:38	1
Bromoform	ND		1.0		ug/L			08/23/16 19:38	1
Bromomethane	ND		1.0		ug/L			08/23/16 19:38	1
Carbon tetrachloride	ND		0.50		ug/L			08/23/16 19:38	1
Chlorobenzene	ND		1.0		ug/L			08/23/16 19:38	1
Chloroethane	ND		1.0		ug/L			08/23/16 19:38	1
Chloroform	ND		1.0		ug/L			08/23/16 19:38	1
Chloromethane	ND		1.0		ug/L			08/23/16 19:38	1
2-Chlorotoluene	ND		1.0		ug/L			08/23/16 19:38	1
4-Chlorotoluene	ND		1.0		ug/L			08/23/16 19:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			08/23/16 19:38	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			08/23/16 19:38	1
Dibromochloromethane	ND		1.0		ug/L			08/23/16 19:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			08/23/16 19:38	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			08/23/16 19:38	1
Dibromomethane	ND		1.0		ug/L			08/23/16 19:38	1
1,2-Dichlorobenzene	ND		1.0		ug/L			08/23/16 19:38	1
1,3-Dichlorobenzene	ND		1.0		ug/L			08/23/16 19:38	1
1,4-Dichlorobenzene	ND		1.0		ug/L			08/23/16 19:38	1
Dichlorodifluoromethane	ND		1.0		ug/L			08/23/16 19:38	1
1,1-Dichloroethane	ND		1.0		ug/L			08/23/16 19:38	1
1,2-Dichloroethane	ND		1.0		ug/L			08/23/16 19:38	1
1,1-Dichloroethene	ND		1.0		ug/L			08/23/16 19:38	1
1,2-Dichloropropane	ND		1.0		ug/L			08/23/16 19:38	1
1,3-Dichloropropane	ND		1.0		ug/L			08/23/16 19:38	1
2,2-Dichloropropane	ND		1.0		ug/L			08/23/16 19:38	1
1,1-Dichloropropene	ND		1.0		ug/L			08/23/16 19:38	1
Ethylbenzene	ND		1.0		ug/L			08/23/16 19:38	1
Hexachlorobutadiene	ND		1.0		ug/L			08/23/16 19:38	1
Isopropylbenzene	ND		1.0		ug/L			08/23/16 19:38	1
Methylene Chloride	ND		5.0		ug/L			08/23/16 19:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			08/23/16 19:38	1
m,p-Xylene	ND		1.0		ug/L			08/23/16 19:38	1
Naphthalene	ND		1.0		ug/L			08/23/16 19:38	1
n-Butylbenzene	ND		1.0		ug/L			08/23/16 19:38	1

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

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
o-Xylene	ND		1.0	ug/L			08/23/16 19:38	1
p-Isopropyltoluene	ND		1.0	ug/L			08/23/16 19:38	1
sec-Butylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Styrene	ND		1.0	ug/L			08/23/16 19:38	1
tert-Butylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			08/23/16 19:38	1
Tetrachloroethene	ND		1.0	ug/L			08/23/16 19:38	1
Toluene	ND		1.0	ug/L			08/23/16 19:38	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			08/23/16 19:38	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,1,1-Trichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2-Trichloroethane	ND		1.0	ug/L			08/23/16 19:38	1
Trichloroethene	ND		1.0	ug/L			08/23/16 19:38	1
Trichlorofluoromethane	ND		1.0	ug/L			08/23/16 19:38	1
1,2,3-Trichloropropane	ND		1.0	ug/L			08/23/16 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	ug/L			08/23/16 19:38	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			08/23/16 19:38	1
Vinyl chloride	ND		0.50	ug/L			08/23/16 19:38	1
Isopropyl alcohol	ND		250	ug/L			08/23/16 19:38	1
Total Volatile Organic Compounds	ND		150	ug/L			08/23/16 19:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/16 19:38*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/23/16 19:38*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 19:38*	*1*

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.9		ug/L		91	10 - 150
Benzene	25.0	25.1		ug/L		100	68 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Bromochloromethane	25.0	26.7		ug/L		107	70 - 130
Bromodichloromethane	25.0	25.9		ug/L		104	70 - 132
Bromoform	25.0	24.0		ug/L		96	60 - 148
Bromomethane	25.0	23.8		ug/L		95	64 - 139
Carbon tetrachloride	25.0	23.0		ug/L		92	60 - 150
Chlorobenzene	25.0	24.9		ug/L		99	70 - 130
Chloroethane	25.0	24.1		ug/L		96	64 - 135
Chloroform	25.0	24.9		ug/L		100	70 - 130
Chloromethane	25.0	21.5		ug/L		86	47 - 140

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.5		ug/L		102	70 - 133
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 133
Dibromochloromethane	25.0	25.3		ug/L		101	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.0		ug/L		92	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.4		ug/L		102	70 - 130
Dibromomethane	25.0	25.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	17.1		ug/L		69	29 - 150
1,1-Dichloroethane	25.0	24.3		ug/L		97	64 - 130
1,2-Dichloroethane	25.0	25.3		ug/L		101	57 - 138
1,1-Dichloroethene	25.0	23.2		ug/L		93	70 - 130
1,2-Dichloropropane	25.0	26.6		ug/L		106	67 - 130
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	68 - 141
1,1-Dichloropropene	25.0	23.5		ug/L		94	70 - 130
Ethylbenzene	25.0	24.1		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	25.0	25.5		ug/L		102	70 - 136
Methylene Chloride	25.0	26.5		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.0		ug/L		100	63 - 131
m,p-Xylene	25.0	25.4		ug/L		102	70 - 130
Naphthalene	25.0	28.1		ug/L		112	60 - 140
n-Butylbenzene	25.0	25.8		ug/L		103	65 - 150
N-Propylbenzene	25.0	26.0		ug/L		104	67 - 139
o-Xylene	25.0	25.3		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 132
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138
Styrene	25.0	25.6		ug/L		103	70 - 134
tert-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	70 - 130
Toluene	25.0	24.6		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 132
1,2,3-Trichlorobenzene	25.0	28.6		ug/L		114	60 - 140
1,2,4-Trichlorobenzene	25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	70 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	21.2		ug/L		85	60 - 150
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		89	60 - 140

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		105	70 - 135
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 136
Vinyl chloride	25.0	22.6		ug/L		90	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: LCS 440-351386/6
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	310		ug/L		124	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-156068-A-6 MS
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	29.1		ug/L		116	10 - 150
Benzene	ND		25.0	25.1		ug/L		100	66 - 130
Bromobenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	ND		25.0	25.9		ug/L		103	70 - 130
Bromodichloromethane	ND		25.0	25.3		ug/L		101	70 - 138
Bromoform	ND		25.0	23.3		ug/L		93	59 - 150
Bromomethane	ND		25.0	23.4		ug/L		94	62 - 131
Carbon tetrachloride	ND		25.0	23.1		ug/L		92	60 - 150
Chlorobenzene	ND		25.0	24.1		ug/L		96	70 - 130
Chloroethane	ND		25.0	23.8		ug/L		95	68 - 130
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130
Chloromethane	ND		25.0	21.9		ug/L		88	39 - 144
2-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 133
Dibromochloromethane	ND		25.0	24.6		ug/L		99	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.7		ug/L		91	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	24.4		ug/L		98	70 - 131
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130

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

Lab Sample ID: 440-156068-A-6 MS
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	ND		25.0	25.3		ug/L		101	70 - 130
Dichlorodifluoromethane	ND		25.0	17.0		ug/L		68	25 - 142
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146
1,1-Dichloroethene	ND		25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropane	ND		25.0	26.5		ug/L		106	69 - 130
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130
2,2-Dichloropropane	ND		25.0	23.4		ug/L		94	69 - 138
1,1-Dichloropropene	ND		25.0	24.0		ug/L		96	64 - 130
Ethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130
Hexachlorobutadiene	ND		25.0	25.6		ug/L		102	10 - 150
Isopropylbenzene	ND		25.0	24.9		ug/L		99	70 - 132
Methylene Chloride	ND		25.0	26.2		ug/L		105	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.6		ug/L		98	70 - 130
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140
n-Butylbenzene	ND		25.0	26.5		ug/L		106	61 - 149
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133
p-Isopropyltoluene	ND		25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	ND		25.0	25.4		ug/L		102	67 - 134
Styrene	ND		25.0	25.4		ug/L		102	29 - 150
tert-Butylbenzene	ND		25.0	25.6		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	23.1		ug/L		92	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	23.4		ug/L		94	63 - 130
Tetrachloroethene	22		25.0	42.6		ug/L		82	70 - 137
Toluene	ND		25.0	24.1		ug/L		97	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	ND		25.0	22.5		ug/L		90	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.2		ug/L		97	70 - 130
Trichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	ND		25.0	21.1		ug/L		84	60 - 150
1,2,3-Trichloropropane	ND		25.0	22.9		ug/L		92	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137
Isopropyl alcohol	ND		250	267		ug/L		107	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

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

Lab Sample ID: 440-156068-A-6 MSD
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	27.5		ug/L		110	10 - 150	6	35
Benzene	ND		25.0	25.1		ug/L		101	66 - 130	0	20
Bromobenzene	ND		25.0	25.6		ug/L		103	70 - 130	2	20
Bromochloromethane	ND		25.0	25.4		ug/L		101	70 - 130	2	25
Bromodichloromethane	ND		25.0	26.3		ug/L		105	70 - 138	4	20
Bromoform	ND		25.0	23.0		ug/L		92	59 - 150	2	25
Bromomethane	ND		25.0	23.6		ug/L		94	62 - 131	1	25
Carbon tetrachloride	ND		25.0	23.3		ug/L		93	60 - 150	1	25
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloroethane	ND		25.0	23.9		ug/L		96	68 - 130	1	25
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130	0	20
Chloromethane	ND		25.0	22.1		ug/L		88	39 - 144	1	25
2-Chlorotoluene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	70 - 133	2	20
Dibromochloromethane	ND		25.0	24.4		ug/L		97	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	22.1		ug/L		88	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	24.0		ug/L		96	70 - 131	2	25
Dibromomethane	ND		25.0	25.1		ug/L		100	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	18.2		ug/L		73	25 - 142	7	30
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130	0	20
1,2-Dichloroethane	ND		25.0	25.1		ug/L		100	56 - 146	3	20
1,1-Dichloroethene	ND		25.0	26.9		ug/L		108	70 - 130	0	20
1,2-Dichloropropane	ND		25.0	26.3		ug/L		105	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130	0	25
2,2-Dichloropropane	ND		25.0	23.8		ug/L		95	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	24.2		ug/L		97	64 - 130	1	20
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	2	20
Isopropylbenzene	ND		25.0	25.0		ug/L		100	70 - 132	1	20
Methylene Chloride	ND		25.0	26.4		ug/L		105	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.5		ug/L		98	70 - 130	0	25
m,p-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	1	25
Naphthalene	ND		25.0	27.3		ug/L		109	60 - 140	1	30
n-Butylbenzene	ND		25.0	26.1		ug/L		105	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.0		ug/L		104	66 - 135	0	20
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	67 - 134	1	20
Styrene	ND		25.0	25.7		ug/L		103	29 - 150	1	35
tert-Butylbenzene	ND		25.0	25.4		ug/L		101	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	23.9		ug/L		95	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.9		ug/L		92	63 - 130	2	30
Tetrachloroethene	22		25.0	42.5		ug/L		82	70 - 137	0	20

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

Lab Sample ID: 440-156068-A-6 MSD
Matrix: Water
Analysis Batch: 351386

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	ND		25.0	24.4		ug/L		98	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.6		ug/L		111	60 - 140	2	20
1,2,4-Trichlorobenzene	ND		25.0	28.6		ug/L		114	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	22.6		ug/L		90	70 - 130	0	20
1,1,2-Trichloroethane	ND		25.0	24.4		ug/L		97	70 - 130	1	25
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	20.9		ug/L		84	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	21.5		ug/L		86	60 - 130	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137	0	30
Isopropyl alcohol	ND		250	310		ug/L		124	46 - 142	15	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-350985/1-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350985

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
1,2-Dichlorobenzene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
1,3-Dichlorobenzene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
1,4-Dichlorobenzene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4,5-Trichlorophenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4,6-Trichlorophenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dichlorophenol	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dimethylphenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dinitrophenol	ND		40		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,4-Dinitrotoluene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2,6-Dinitrotoluene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Chloronaphthalene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Chlorophenol	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Methylnaphthalene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Methylphenol	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Nitroaniline	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
2-Nitrophenol	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-350985/1-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350985

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
3-Methylphenol + 4-Methylphenol	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
3-Nitroaniline	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
4,6-Dinitro-2-methylphenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Bromophenyl phenyl ether	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chloro-3-methylphenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chloroaniline	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Chlorophenyl phenyl ether	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Nitroaniline	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
4-Nitrophenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Acenaphthene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Acenaphthylene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Aniline	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Anthracene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzidine	ND		40		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[a]anthracene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[a]pyrene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[b]fluoranthene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[g,h,i]perylene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzo[k]fluoranthene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzoic acid	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Benzyl alcohol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
bis (2-chloroisopropyl) ether	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-chloroethoxy)methane	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-chloroethyl)ether	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Bis(2-ethylhexyl) phthalate	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Butyl benzyl phthalate	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Chrysene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Dibenz(a,h)anthracene	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Dibenzofuran	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Diethyl phthalate	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Dimethyl phthalate	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Di-n-butyl phthalate	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Di-n-octyl phthalate	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Fluoranthene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Fluorene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorobenzene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorobutadiene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachlorocyclopentadiene	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Hexachloroethane	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Indeno[1,2,3-cd]pyrene	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
Isophorone	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Naphthalene	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Nitrobenzene	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodimethylamine	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodi-n-propylamine	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
N-Nitrosodiphenylamine	ND		10		ug/L		08/22/16 11:04	08/24/16 15:33	1
Pentachlorophenol	ND		20		ug/L		08/22/16 11:04	08/24/16 15:33	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-350985/1-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350985

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Phenol	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1
Pyrene	ND		10	ug/L		08/22/16 11:04	08/24/16 15:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*71*		*40 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
2-Fluorobiphenyl	*72*		*50 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
2-Fluorophenol (Surr)	*70*		*30 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Nitrobenzene-d5 (Surr)	*71*		*45 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Phenol-d6 (Surr)	*70*		*35 - 120*	*08/22/16 11:04*	*08/24/16 15:33*	*1*
Terphenyl-d14 (Surr)	*76*		*10 - 150*	*08/22/16 11:04*	*08/24/16 15:33*	*1*

Lab Sample ID: LCS 440-350985/2-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	50.1		ug/L		50	25 - 84
1,2-Dichlorobenzene	100	47.3		ug/L		47	24 - 85
1,2-Diphenylhydrazine(as Azobenzene)	101	68.0		ug/L		67	44 - 113
1,3-Dichlorobenzene	100	45.6		ug/L		46	20 - 80
1,4-Dichlorobenzene	100	46.1		ug/L		46	22 - 81
2,4,5-Trichlorophenol	100	67.4		ug/L		67	24 - 121
2,4,6-Trichlorophenol	100	66.7		ug/L		67	20 - 121
2,4-Dichlorophenol	100	61.0		ug/L		61	23 - 113
2,4-Dimethylphenol	100	60.5		ug/L		60	39 - 94
2,4-Dinitrophenol	200	140		ug/L		70	23 - 134
2,4-Dinitrotoluene	100	68.8		ug/L		69	54 - 115
2,6-Dinitrotoluene	100	70.4		ug/L		70	50 - 115
2-Chloronaphthalene	100	59.6		ug/L		60	34 - 102
2-Chlorophenol	100	54.4		ug/L		54	20 - 106
2-Methylnaphthalene	100	55.0		ug/L		55	34 - 98
2-Methylphenol	100	58.7		ug/L		59	36 - 103
2-Nitroaniline	100	70.2		ug/L		70	48 - 111
2-Nitrophenol	100	56.5		ug/L		57	20 - 117
3,3'-Dichlorobenzidine	100	56.2		ug/L		56	22 - 97
3-Methylphenol + 4-Methylphenol	100	60.9		ug/L		61	35 - 106
3-Nitroaniline	100	71.4		ug/L		71	51 - 116
4,6-Dinitro-2-methylphenol	200	139		ug/L		70	28 - 139
4-Bromophenyl phenyl ether	100	68.2		ug/L		68	42 - 113
4-Chloro-3-methylphenol	100	61.2		ug/L		61	44 - 110
4-Chloroaniline	100	66.1		ug/L		66	42 - 109
4-Chlorophenyl phenyl ether	100	67.4		ug/L		67	38 - 115
4-Nitroaniline	100	69.6		ug/L		70	50 - 116
4-Nitrophenol	200	133		ug/L		67	26 - 132
Acenaphthene	100	65.3		ug/L		65	37 - 107
Acenaphthylene	100	63.2		ug/L		63	39 - 107

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-350985/2-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	100	64.0		ug/L		64	27 - 115
Anthracene	100	68.8		ug/L		69	42 - 120
Benzidine	100	67.9		ug/L		68	5 - 150
Benzo[a]anthracene	100	69.3		ug/L		69	42 - 115
Benzo[a]pyrene	100	73.0		ug/L		73	41 - 117
Benzo[b]fluoranthene	100	72.4		ug/L		72	36 - 113
Benzo[g,h,i]perylene	100	73.6		ug/L		74	37 - 115
Benzo[k]fluoranthene	100	74.2		ug/L		74	42 - 122
Benzoic acid	100	60.2		ug/L		60	15 - 121
Benzyl alcohol	100	62.0		ug/L		62	39 - 106
bis (2-chloroisopropyl) ether	100	55.2		ug/L		55	38 - 104
Bis(2-chloroethoxy)methane	100	60.2		ug/L		60	47 - 104
Bis(2-chloroethyl)ether	100	56.1		ug/L		56	42 - 99
Bis(2-ethylhexyl) phthalate	100	71.5		ug/L		71	43 - 124
Butyl benzyl phthalate	100	69.9		ug/L		70	44 - 122
Chrysene	100	69.1		ug/L		69	42 - 118
Dibenz(a,h)anthracene	100	72.3		ug/L		72	40 - 114
Dibenzofuran	100	62.8		ug/L		63	37 - 113
Diethyl phthalate	100	70.9		ug/L		71	51 - 120
Dimethyl phthalate	100	68.3		ug/L		68	49 - 113
Di-n-butyl phthalate	100	71.8		ug/L		72	47 - 125
Di-n-octyl phthalate	100	70.3		ug/L		70	42 - 125
Fluoranthene	100	65.4		ug/L		65	44 - 119
Fluorene	100	64.4		ug/L		64	39 - 116
Hexachlorobenzene	100	69.1		ug/L		69	43 - 112
Hexachlorobutadiene	100	43.1		ug/L		43	14 - 77
Hexachlorocyclopentadiene	100	37.5		ug/L		37	10 - 77
Hexachloroethane	100	41.4		ug/L		41	13 - 75
Indeno[1,2,3-cd]pyrene	100	69.0		ug/L		69	35 - 116
Isophorone	100	64.6		ug/L		65	48 - 107
Naphthalene	100	56.0		ug/L		56	33 - 95
Nitrobenzene	100	56.9		ug/L		57	42 - 99
N-Nitrosodimethylamine	100	51.4		ug/L		51	35 - 96
N-Nitrosodi-n-propylamine	100	62.2		ug/L		62	44 - 111
N-Nitrosodiphenylamine	100	66.8		ug/L		67	46 - 116
Pentachlorophenol	200	141		ug/L		70	26 - 136
Phenanthrene	100	67.6		ug/L		68	43 - 120
Phenol	100	55.5		ug/L		55	25 - 99
Pyrene	100	69.2		ug/L		69	43 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*70*		*40 - 120*
2-Fluorobiphenyl	*62*		*50 - 120*
2-Fluorophenol (Surr)	*49*		*30 - 120*
Nitrobenzene-d5 (Surr)	*56*		*45 - 120*
Phenol-d6 (Surr)	*55*		*35 - 120*
Terphenyl-d14 (Surr)	*68*		*10 - 150*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-350985/3-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	100	43.1		ug/L		43	25 - 84	15	35
1,2-Dichlorobenzene	100	40.4		ug/L		40	24 - 85	16	35
1,2-Diphenylhydrazine(as Azobenzene)	101	64.6		ug/L		64	44 - 113	5	35
1,3-Dichlorobenzene	100	38.8		ug/L		39	20 - 80	16	35
1,4-Dichlorobenzene	100	39.3		ug/L		39	22 - 81	16	35
2,4,5-Trichlorophenol	100	69.8		ug/L		70	24 - 121	3	35
2,4,6-Trichlorophenol	100	66.6		ug/L		67	20 - 121	0	35
2,4-Dichlorophenol	100	59.8		ug/L		60	23 - 113	2	35
2,4-Dimethylphenol	100	60.7		ug/L		61	39 - 94	0	35
2,4-Dinitrophenol	200	140		ug/L		70	23 - 134	0	35
2,4-Dinitrotoluene	100	66.4		ug/L		66	54 - 115	4	35
2,6-Dinitrotoluene	100	69.3		ug/L		69	50 - 115	2	35
2-Chloronaphthalene	100	57.9		ug/L		58	34 - 102	3	35
2-Chlorophenol	100	51.1		ug/L		51	20 - 106	6	35
2-Methylnaphthalene	100	49.9		ug/L		50	34 - 98	10	35
2-Methylphenol	100	57.7		ug/L		58	36 - 103	2	35
2-Nitroaniline	100	73.3		ug/L		73	48 - 111	4	35
2-Nitrophenol	100	54.5		ug/L		54	20 - 117	4	35
3,3'-Dichlorobenzidine	100	54.0		ug/L		54	22 - 97	4	35
3-Methylphenol + 4-Methylphenol	100	61.6		ug/L		62	35 - 106	1	35
3-Nitroaniline	100	71.9		ug/L		72	51 - 116	1	35
4,6-Dinitro-2-methylphenol	200	141		ug/L		70	28 - 139	1	35
4-Bromophenyl phenyl ether	100	69.2		ug/L		69	42 - 113	2	35
4-Chloro-3-methylphenol	100	63.9		ug/L		64	44 - 110	4	35
4-Chloroaniline	100	67.0		ug/L		67	42 - 109	1	35
4-Chlorophenyl phenyl ether	100	63.7		ug/L		64	38 - 115	6	35
4-Nitroaniline	100	68.1		ug/L		68	50 - 116	2	35
4-Nitrophenol	200	136		ug/L		68	26 - 132	2	35
Acenaphthene	100	62.9		ug/L		63	37 - 107	4	35
Acenaphthylene	100	60.6		ug/L		61	39 - 107	4	35
Aniline	100	63.1		ug/L		63	27 - 115	2	35
Anthracene	100	65.4		ug/L		65	42 - 120	5	35
Benzidine	100	65.2		ug/L		65	5 - 150	4	35
Benzo[a]anthracene	100	67.9		ug/L		68	42 - 115	2	35
Benzo[a]pyrene	100	70.7		ug/L		71	41 - 117	3	35
Benzo[b]fluoranthene	100	70.7		ug/L		71	36 - 113	2	35
Benzo[g,h,i]perylene	100	71.9		ug/L		72	37 - 115	2	35
Benzo[k]fluoranthene	100	71.7		ug/L		72	42 - 122	3	35
Benzoic acid	100	66.2		ug/L		66	15 - 121	9	35
Benzyl alcohol	100	64.0		ug/L		64	39 - 106	3	35
bis (2-chloroisopropyl) ether	100	48.3		ug/L		48	38 - 104	13	35
Bis(2-chloroethoxy)methane	100	57.8		ug/L		58	47 - 104	4	35
Bis(2-chloroethyl)ether	100	49.6		ug/L		50	42 - 99	12	35
Bis(2-ethylhexyl) phthalate	100	69.0		ug/L		69	43 - 124	3	35
Butyl benzyl phthalate	100	68.3		ug/L		68	44 - 122	2	35
Chrysene	100	67.8		ug/L		68	42 - 118	2	35
Dibenz(a,h)anthracene	100	70.9		ug/L		71	40 - 114	2	35

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-350985/3-A
Matrix: Water
Analysis Batch: 351586

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350985

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenzofuran	100	60.1		ug/L		60	37 - 113	4	35
Diethyl phthalate	100	67.8		ug/L		68	51 - 120	5	35
Dimethyl phthalate	100	68.1		ug/L		68	49 - 113	0	35
Di-n-butyl phthalate	100	67.8		ug/L		68	47 - 125	6	35
Di-n-octyl phthalate	100	68.5		ug/L		68	42 - 125	3	35
Fluoranthene	100	61.8		ug/L		62	44 - 119	6	35
Fluorene	100	59.7		ug/L		60	39 - 116	8	35
Hexachlorobenzene	100	67.8		ug/L		68	43 - 112	2	35
Hexachlorobutadiene	100	35.5		ug/L		36	14 - 77	19	35
Hexachlorocyclopentadiene	100	34.3		ug/L		34	10 - 77	9	35
Hexachloroethane	100	34.6		ug/L		35	13 - 75	18	35
Indeno[1,2,3-cd]pyrene	100	67.5		ug/L		68	35 - 116	2	35
Isophorone	100	64.5		ug/L		65	48 - 107	0	35
Naphthalene	100	49.9		ug/L		50	33 - 95	11	35
Nitrobenzene	100	52.7		ug/L		53	42 - 99	8	35
N-Nitrosodimethylamine	100	52.0		ug/L		52	35 - 96	1	35
N-Nitrosodi-n-propylamine	100	59.4		ug/L		59	44 - 111	5	35
N-Nitrosodiphenylamine	100	68.0		ug/L		68	46 - 116	2	35
Pentachlorophenol	200	136		ug/L		68	26 - 136	4	35
Phenanthrene	100	65.8		ug/L		66	43 - 120	3	35
Phenol	100	53.2		ug/L		53	25 - 99	4	35
Pyrene	100	67.6		ug/L		68	43 - 119	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*64*		*40 - 120*
2-Fluorobiphenyl	*54*		*50 - 120*
2-Fluorophenol (Surr)	*45*		*30 - 120*
Nitrobenzene-d5 (Surr)	*46*		*45 - 120*
Phenol-d6 (Surr)	*52*		*35 - 120*
Terphenyl-d14 (Surr)	*59*		*10 - 150*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-350500/1-A
Matrix: Water
Analysis Batch: 350992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 350500

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	ug/L		08/19/16 11:45	08/22/16 13:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*55*		*36 - 90*	*08/19/16 11:45*	*08/22/16 13:37*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM (Continued)

Lab Sample ID: LCS 440-350500/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	2.00	1.12		ug/L		56	36 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*

Lab Sample ID: LCSD 440-350500/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	2.00	1.01		ug/L		50	36 - 120	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*47*		*36 - 90*

Method: 5220D-2011 - Chemical Oxygen Demand

Lab Sample ID: MB 680-447123/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10		mg/L			08/24/16 13:42	1

Lab Sample ID: LCS 680-447123/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	49.9		mg/L		100	90 - 110

Lab Sample ID: 440-155927-C-2 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	23	F1	50.0	64.8	F1	mg/L		83	90 - 110

Lab Sample ID: 440-155927-C-2 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 447123

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	23	F1	50.0	62.9	F1	mg/L		79	90 - 110	3	30

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-351035/1
Matrix: Water
Analysis Batch: 351035

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0		mg/L			08/22/16 13:50	1

Lab Sample ID: LCS 440-351035/2
Matrix: Water
Analysis Batch: 351035

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	960		mg/L		96	85 - 115		

Lab Sample ID: 440-156015-A-1 DU
Matrix: Water
Analysis Batch: 351035

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	810			808		mg/L				0.2	10

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-156057-2 DU
Matrix: Water
Analysis Batch: 350476

Client Sample ID: Grab Sample
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	8.6	HF		8.6		SU				0.1	2

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 440-351422/1-A
Matrix: Water
Analysis Batch: 351424

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 351422

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Dissolved	ND		0.050		mg/L		08/23/16 18:15	08/23/16 22:20	1

Lab Sample ID: LCS 440-351422/2-A
Matrix: Water
Analysis Batch: 351424

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 351422

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved			0.500	0.466		mg/L		93	80 - 120		

Lab Sample ID: 440-155710-O-11-B MS
Matrix: Water
Analysis Batch: 351424

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 351422

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Dissolved	ND	HF	0.500	0.496	HF	mg/L		99	70 - 130		

QC Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Method: SM 4500 S2 D - Sulfide, Total (Continued)

Lab Sample ID: 440-155710-O-11-C MSD
Matrix: Water
Analysis Batch: 351424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 351422

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Dissolved	ND	HF	0.500	0.497	HF	mg/L		99	70 - 130	0	30

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

GC/MS VOA

Analysis Batch: 351362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8260B	
MB 440-351362/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351362/5	Lab Control Sample	Total/NA	Water	8260B	
440-155926-A-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-155926-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 351386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8260B	
MB 440-351386/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351386/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-351386/6	Lab Control Sample	Total/NA	Water	8260B	
440-156068-A-6 MS	Matrix Spike	Total/NA	Water	8260B	
440-156068-A-6 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 350500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	3520C	
MB 440-350500/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Prep Batch: 350985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	3520C	
MB 440-350985/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350985/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350985/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 350992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8270C SIM	350500
MB 440-350500/1-A	Method Blank	Total/NA	Water	8270C SIM	350500
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	350500
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	350500

Analysis Batch: 351586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	8270C	350985
MB 440-350985/1-A	Method Blank	Total/NA	Water	8270C	350985
LCS 440-350985/2-A	Lab Control Sample	Total/NA	Water	8270C	350985
LCSD 440-350985/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	350985

General Chemistry

Analysis Batch: 350476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 350476 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2 DU	Grab Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 351035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-1	Composite Sample	Total/NA	Water	SM 2540D	
MB 440-351035/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 440-351035/2	Lab Control Sample	Total/NA	Water	SM 2540D	
440-156015-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Prep Batch: 351422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Dissolved	Water	SM 4500 S2 B	
MB 440-351422/1-A	Method Blank	Dissolved	Water	SM 4500 S2 B	
LCS 440-351422/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 B	
440-155710-O-11-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 B	
440-155710-O-11-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 B	

Analysis Batch: 351424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-2	Grab Sample	Dissolved	Water	SM 4500 S2 D	351422
MB 440-351422/1-A	Method Blank	Dissolved	Water	SM 4500 S2 D	351422
LCS 440-351422/2-A	Lab Control Sample	Dissolved	Water	SM 4500 S2 D	351422
440-155710-O-11-B MS	Matrix Spike	Dissolved	Water	SM 4500 S2 D	351422
440-155710-O-11-C MSD	Matrix Spike Duplicate	Dissolved	Water	SM 4500 S2 D	351422

Analysis Batch: 447123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156057-1	Composite Sample	Total/NA	Water	5220D-2011	
MB 680-447123/3	Method Blank	Total/NA	Water	5220D-2011	
LCS 680-447123/4	Lab Control Sample	Total/NA	Water	5220D-2011	
440-155927-C-2 MS	Matrix Spike	Total/NA	Water	5220D-2011	
440-155927-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	5220D-2011	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

Laboratory: TestAmerica Savannah

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	
A2LA	DoD ELAP		399.01	02-28-17
A2LA	ISO/IEC 17025		399.01	02-28-17
Alabama	State Program	4	41450	06-30-17
Alaska (UST)	State Program	10	UST-104	11-05-16
Arkansas DEQ	State Program	6	88-0692	01-31-17
California	State Program	9	2939	07-31-16 *
Colorado	State Program	8	N/A	12-31-16
Connecticut	State Program	1	PH-0161	03-31-17
Florida	NELAP	4	E87052	06-30-17
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-17
Georgia	State Program	4	803	06-30-17
Guam	State Program	9	15-005r	04-16-17
Hawaii	State Program	9	N/A	06-30-17
Illinois	NELAP	5	200022	11-30-16
Indiana	State Program	5	N/A	06-30-17
Iowa	State Program	7	353	06-30-17
Kentucky (DW)	State Program	4	90084	12-31-16
Kentucky (UST)	State Program	4	18	06-30-17
Kentucky (WW)	State Program	4	90084	12-31-16
Louisiana	NELAP	6	30690	06-30-17
Louisiana (DW)	NELAP	6	LA160019	12-31-16
Maine	State Program	1	GA00006	09-24-16 *
Maryland	State Program	3	250	12-31-16
Massachusetts	State Program	1	M-GA006	06-30-17
Michigan	State Program	5	9925	06-30-17
Mississippi	State Program	4	N/A	06-30-16 *
Nebraska	State Program	7	TestAmerica-Savannah	06-30-17
New Jersey	NELAP	2	GA769	06-30-17
New Mexico	State Program	6	N/A	06-30-17
New York	NELAP	2	10842	03-31-17

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical Wastewater

TestAmerica Job ID: 440-156057-1

Laboratory: TestAmerica Savannah (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Carolina (DW)	State Program	4	13701	07-31-17
North Carolina (WW/SW)	State Program	4	269	12-31-16
Oklahoma	State Program	6	9984	08-31-16
Pennsylvania	NELAP	3	68-00474	06-30-17
Puerto Rico	State Program	2	GA00006	12-31-16
South Carolina	State Program	4	98001	06-30-16 *
Tennessee	State Program	4	TN02961	06-30-16 *
Texas	NELAP	6	T104704185-14-7	11-30-16
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-17
Washington	State Program	10	C805	06-10-16 *
West Virginia (DW)	State Program	3	9950C	12-31-16
West Virginia DEP	State Program	3	094	08-31-16
Wisconsin	State Program	5	999819810	08-31-16 *
Wyoming	State Program	8	8TMS-L	06-30-16 *

* Certification renewal pending - certification considered valid.

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	Sampler: Efrain Figueroa	Lab PM: Roberts, Danielle C	Carrier Tracking No(s):	COC No: 440-93580-16301.1
Client Contact: Pamela Henriksen	Phone: (949)283-0504	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: Jacob & Hefner Associates P.C.				Job #:
Address: 15375 Barranca Parkway, J-101	Due Date Requested:			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92618				
Phone: 949-274-0297(Tel)	PO #: Omega Chemical Wastewater			
Email: phenriksen@jacobandhefner.com	WO #:			
Project Name: Omega Chemical Wastewater	Project #: 44003641			
Site: California	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	5220D - COD	2540D - TSS	SM4500_S2_D - Dissolved Sulfide	6260B_LL - VOCs+Oxys+Ks+F113-LL	8270C, 8270C_SIM	SM4500_H+ - pH	8260B_LL - A+A+2CVE	Total Number of containers	Special Instructions/Note:
			Preservation Code:				S	N	B	A	N	N	N		
Composite Sample	8/17-18/16	15:30	C	Water			X	X						2	Isco Start: Aug. 17th 2016 @ 1100
Grab Sample	8/18/16	15:40	G	Water					X	X	X	X	X	12	Meter: 707997
															Isco End: Aug. 18th 2016 @ 1100
															Meter: 712740
															Field pH: 8.1
															Temp: 19.8°C
															Sampling Time: 3Hrs

440-156057 Chain of Custody

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Efrain Figueroa	8-18-16 16:00	TA I			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 8/18/16 1900	Company TA-I

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.3/~~1.4~~ 1.6

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: 440-101475.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: danielle.roberts@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 440-156057-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 8/24/2016			
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: Omega Chemical - ISCO/Composite & Grab	Project #: 44003641			
Site: Omega Whittier Wastewater	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)	6220D	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Composite Sample (440-156057-1)	8/18/16	15:38 Pacific		Water			X	1	

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: T.A

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Vin Bauch	Date/Time: 8/19/16 17:00	Company: TAI	Received by: FedEx	Date/Time: 8/19/16 17:00	Company
Relinquished by:	Date/Time:	Company	Received by: S Wayne	Date/Time: 8-20-16 10:20	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: 0.9 1.3

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-156057-1

Login Number: 156057
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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: Jacob & Hefner Associates P.C.

Job Number: 440-156057-1

Login Number: 156057
List Number: 2
Creator: Wayne, Shretha S

List Source: TestAmerica Savannah
List Creation: 08/20/16 02:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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?	N/A	
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.	True	
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").	N/A	
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

ANALYTICAL REPORT

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

TestAmerica Job ID: 440-156068-1
Client Project/Site: Omega Chemical-2016 Semi-Annual GWM

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

Attn: Jaime Dinello

Authorized for release by:
8/31/2016 4:47:51 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

LINKS

Review your project results through TotalAccess

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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 Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-156068-1	OC_GW_DPE9_20160818	Water	08/18/16 07:06	08/18/16 19:00
440-156068-2	OC_GW_OW3B_20160818	Water	08/18/16 09:04	08/18/16 19:00
440-156068-3	OC_GW_OW3BK_20160818	Water	08/18/16 09:04	08/18/16 19:00
440-156068-4	OC_GW_EW5_20160818	Water	08/18/16 09:15	08/18/16 19:00
440-156068-5	OC_GW_EW4_20160818	Water	08/18/16 09:51	08/18/16 19:00
440-156068-6	OC_GW_OW8B_20160818	Water	08/18/16 11:23	08/18/16 19:00
440-156068-7	OC_GW_EW3_20160818	Water	08/18/16 11:37	08/18/16 19:00
440-156068-8	OC_GW_EW1_20160818	Water	08/18/16 11:54	08/18/16 19:00
440-156068-9	OC_GW_OW4B_20160818	Water	08/18/16 14:15	08/18/16 19:00
440-156068-10	OC_GW_OW4BN_20160818	Water	08/18/16 15:00	08/18/16 19:00
440-156068-11	OC_GW_TB1_20160818	Water	08/18/16 07:00	08/18/16 19:00
440-156068-12	OC_GW_TB2_20160818	Water	08/18/16 07:00	08/18/16 19:00

Job ID: 440-156068-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-156068-1

Comments
No additional comments.

Receipt
The samples were received on 8/18/2016 7:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1º C.

Receipt Exceptions

The Chain of Custody was received without any analyses selected.
TB2 Does not have analysis selected.

<EXPLANATION_REQUIRED>

OC_GW_OW4BN_20160818 (440-156068-10)

We did not receive the ambers for this sample.
Revised chain of custody was received excluding EPA 8270-1,4 Dioxane for OC_GW_OW4BN_20160818

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350500 and analytical batch 440-350992. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: OC_GW_DPE9_20160818 (440-156068-1). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C SIM: The following sample required a dilution due to the nature of the sample matrix: OC_GW_EW1_20160818 (440-156068-8). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

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

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

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_DPE9_20160818

Lab Sample ID: 440-156068-1

Date Collected: 08/18/16 07:06
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/23/16 22:25	1
Benzene	ND		0.50	0.25	ug/L			08/23/16 22:25	1
Bromobenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Bromoform	ND		1.0	0.40	ug/L			08/23/16 22:25	1
Bromomethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/23/16 22:25	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Chloroethane	ND		1.0	0.40	ug/L			08/23/16 22:25	1
Chloroform	**29**		1.0	0.25	ug/L			08/23/16 22:25	1
Chloromethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
cis-1,2-Dichloroethene	**0.29**	**J**	1.0	0.25	ug/L			08/23/16 22:25	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 22:25	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/23/16 22:25	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Dibromomethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/23/16 22:25	1
1,1-Dichloroethane	**0.93**	**J**	1.0	0.25	ug/L			08/23/16 22:25	1
1,2-Dichloroethane	**6.4**		1.0	0.25	ug/L			08/23/16 22:25	1
1,1-Dichloroethene	**36**		1.0	0.25	ug/L			08/23/16 22:25	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/23/16 22:25	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Isopropyl alcohol	ND		250	180	ug/L			08/23/16 22:25	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/23/16 22:25	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/23/16 22:25	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/23/16 22:25	1
Naphthalene	ND		1.0	0.40	ug/L			08/23/16 22:25	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/23/16 22:25	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
o-Xylene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Styrene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Toluene	ND		1.0	0.25	ug/L			08/23/16 22:25	1

Client Sample ID: OC_GW_DPE9_20160818

Lab Sample ID: 440-156068-1
Date Collected: 08/18/16 07:06
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	**0.30**	**J**	1.0	0.25	ug/L			08/23/16 22:25	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 22:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 22:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 22:25	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,1,2-Trichloroethane	**0.69**	**J**	1.0	0.25	ug/L			08/23/16 22:25	1
Trichloroethene	**35**		1.0	0.25	ug/L			08/23/16 22:25	1
Trichlorofluoromethane	**9.9**		1.0	0.25	ug/L			08/23/16 22:25	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/23/16 22:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**33**		5.0	0.50	ug/L			08/23/16 22:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 22:25	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/23/16 22:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloro-1,1,2-trifluoroethane	*1.1*	*J*	*ug/L*		*3.04*	*354-23-4*		*08/23/16 22:25*	*1*
Unknown	*2.6*	*T J*	*ug/L*		*9.50*			*08/23/16 22:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/16 22:25*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*08/23/16 22:25*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 22:25*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**580**		5.0	1.3	ug/L			08/23/16 22:53	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 22:53*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/16 22:53*	*5*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*08/23/16 22:53*	*5*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/23/16 22:53*	*5*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**40**		4.7	0.94	ug/L		08/19/16 11:45	08/22/16 15:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*41*		*36 - 90*	*08/19/16 11:45*	*08/22/16 15:07*	*10*

Client Sample ID: OC_GW_OW3B_20160818

Lab Sample ID: 440-156068-2
Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/23/16 23:22	1
Benzene	ND		0.50	0.25	ug/L			08/23/16 23:22	1
Bromobenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW3B_20160818

Lab Sample ID: 440-156068-2
Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromochloromethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Bromoform	ND		1.0	0.40	ug/L			08/23/16 23:22	1
Bromomethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/23/16 23:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Chloroethane	ND		1.0	0.40	ug/L			08/23/16 23:22	1
Chloroform	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Chloromethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 23:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/23/16 23:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Dibromomethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/23/16 23:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/23/16 23:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Isopropyl alcohol	ND		250	180	ug/L			08/23/16 23:22	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/23/16 23:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/23/16 23:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/23/16 23:22	1
Naphthalene	ND		1.0	0.40	ug/L			08/23/16 23:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/23/16 23:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
o-Xylene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Styrene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Tetrachloroethene	**4.6**		1.0	0.25	ug/L			08/23/16 23:22	1
Toluene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 23:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW3B_20160818

Lab Sample ID: 440-156068-2
Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 23:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 23:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Trichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/23/16 23:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/23/16 23:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/23/16 23:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 23:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/23/16 23:22*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/23/16 23:22*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 23:22*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.48	0.096	ug/L		08/19/16 11:45	08/22/16 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*50*		*36 - 90*	*08/19/16 11:45*	*08/22/16 15:29*	*1*

Client Sample ID: OC_GW_OW3BK_20160818

Lab Sample ID: 440-156068-3
Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/23/16 23:50	1
Benzene	ND		0.50	0.25	ug/L			08/23/16 23:50	1
Bromobenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Bromoform	ND		1.0	0.40	ug/L			08/23/16 23:50	1
Bromomethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/23/16 23:50	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Chloroethane	ND		1.0	0.40	ug/L			08/23/16 23:50	1
Chloroform	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Chloromethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 23:50	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/23/16 23:50	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW3BK_20160818

Lab Sample ID: 440-156068-3

Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Dibromomethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/23/16 23:50	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/23/16 23:50	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Isopropyl alcohol	ND		250	180	ug/L			08/23/16 23:50	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/23/16 23:50	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/23/16 23:50	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/23/16 23:50	1
Naphthalene	ND		1.0	0.40	ug/L			08/23/16 23:50	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/23/16 23:50	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
o-Xylene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Styrene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Tetrachloroethene	**4.8**		1.0	0.25	ug/L			08/23/16 23:50	1
Toluene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 23:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 23:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 23:50	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Trichloroethene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/23/16 23:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/23/16 23:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 23:50	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/23/16 23:50	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 23:50*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW3BK_20160818

Lab Sample ID: 440-156068-3
Date Collected: 08/18/16 09:04
Matrix: Water
Date Received: 08/18/16 19:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*08/23/16 23:50*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*08/23/16 23:50*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 23:50*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.19**	**J**	0.47	0.095	ug/L		08/19/16 11:45	08/22/16 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*	*08/19/16 11:45*	*08/22/16 15:51*	*1*

Client Sample ID: OC_GW_EW5_20160818

Lab Sample ID: 440-156068-4
Date Collected: 08/18/16 09:15
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 00:18	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 00:18	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 00:18	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 00:18	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 00:18	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 00:18	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 00:18	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 00:18	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,1-Dichloroethene	**23**		1.0	0.25	ug/L			08/24/16 00:18	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 00:18	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 00:18	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_EW5_20160818

Lab Sample ID: 440-156068-4
Date Collected: 08/18/16 09:15
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 00:18	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 00:18	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 00:18	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 00:18	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 00:18	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Tetrachloroethene	**20**		1.0	0.25	ug/L			08/24/16 00:18	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 00:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 00:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 00:18	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Trichloroethene	**2.6**		1.0	0.25	ug/L			08/24/16 00:18	1
Trichlorofluoromethane	**41**		1.0	0.25	ug/L			08/24/16 00:18	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 00:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**69**		5.0	0.50	ug/L			08/24/16 00:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:18	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 00:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 00:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/16 00:18*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*08/24/16 00:18*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*08/24/16 00:18*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.10**	**J**	0.48	0.095	ug/L		08/19/16 11:45	08/22/16 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*	*08/19/16 11:45*	*08/22/16 16:14*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_EW4_20160818

Lab Sample ID: 440-156068-5

Date Collected: 08/18/16 09:51
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 00:46	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 00:46	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 00:46	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 00:46	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 00:46	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 00:46	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 00:46	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 00:46	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,1-Dichloroethene	**46**		1.0	0.25	ug/L			08/24/16 00:46	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 00:46	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 00:46	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 00:46	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 00:46	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 00:46	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 00:46	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 00:46	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Tetrachloroethene	**43**		1.0	0.25	ug/L			08/24/16 00:46	1

Client Sample ID: OC_GW_EW4_20160818

Lab Sample ID: 440-156068-5
Date Collected: 08/18/16 09:51
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 00:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 00:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 00:46	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Trichloroethene	**4.7**		1.0	0.25	ug/L			08/24/16 00:46	1
Trichlorofluoromethane	**13**		1.0	0.25	ug/L			08/24/16 00:46	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 00:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**26**		5.0	0.50	ug/L			08/24/16 00:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 00:46	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 00:46	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 00:46*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/24/16 00:46*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/24/16 00:46*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/24/16 00:46*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.22**	**J**	0.47	0.095	ug/L		08/19/16 11:45	08/22/16 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*44*		*36 - 90*	*08/19/16 11:45*	*08/22/16 16:36*	*1*

Client Sample ID: OC_GW_OW8B_20160818

Lab Sample ID: 440-156068-6
Date Collected: 08/18/16 11:23
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/23/16 21:02	1
Benzene	ND		0.50	0.25	ug/L			08/23/16 21:02	1
Bromobenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Bromoform	ND		1.0	0.40	ug/L			08/23/16 21:02	1
Bromomethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/23/16 21:02	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Chloroethane	ND		1.0	0.40	ug/L			08/23/16 21:02	1
Chloroform	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Chloromethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 21:02	1

Client Sample ID: OC_GW_OW8B_20160818

Lab Sample ID: 440-156068-6

Date Collected: 08/18/16 11:23

Matrix: Water

Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 21:02	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/23/16 21:02	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Dibromomethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/23/16 21:02	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/23/16 21:02	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Isopropyl alcohol	ND		250	180	ug/L			08/23/16 21:02	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/23/16 21:02	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/23/16 21:02	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/23/16 21:02	1
Naphthalene	ND		1.0	0.40	ug/L			08/23/16 21:02	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/23/16 21:02	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
o-Xylene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Styrene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Tetrachloroethene	**22**		1.0	0.25	ug/L			08/23/16 21:02	1
Toluene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 21:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 21:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 21:02	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Trichloroethene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/23/16 21:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/23/16 21:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 21:02	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/23/16 21:02	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW8B_20160818

Lab Sample ID: 440-156068-6
Date Collected: 08/18/16 11:23
Matrix: Water
Date Received: 08/18/16 19:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/23/16 21:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/23/16 21:02	1
Dibromofluoromethane (Surr)	102		76 - 132		08/23/16 21:02	1
Toluene-d8 (Surr)	106		80 - 128		08/23/16 21:02	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.16**	**J**	0.48	0.096	ug/L		08/19/16 11:45	08/22/16 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	52		36 - 90	08/19/16 11:45	08/22/16 16:59	1

Client Sample ID: OC_GW_EW3_20160818

Lab Sample ID: 440-156068-7
Date Collected: 08/18/16 11:37
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 01:14	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 01:14	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 01:14	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 01:14	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 01:14	1
Chloroform	**3.1**		1.0	0.25	ug/L			08/24/16 01:14	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
cis-1,2-Dichloroethene	**0.74**	**J**	1.0	0.25	ug/L			08/24/16 01:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 01:14	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 01:14	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 01:14	1
1,1-Dichloroethane	**0.26**	**J**	1.0	0.25	ug/L			08/24/16 01:14	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,1-Dichloroethene	**85**		1.0	0.25	ug/L			08/24/16 01:14	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 01:14	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 01:14	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_EW3_20160818

Lab Sample ID: 440-156068-7

Date Collected: 08/18/16 11:37
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 01:14	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 01:14	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 01:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 01:14	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 01:14	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 01:14	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Tetrachloroethene	**160**		1.0	0.25	ug/L			08/24/16 01:14	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 01:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 01:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 01:14	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Trichloroethene	**20**		1.0	0.25	ug/L			08/24/16 01:14	1
Trichlorofluoromethane	**34**		1.0	0.25	ug/L			08/24/16 01:14	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 01:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**67**		5.0	0.50	ug/L			08/24/16 01:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 01:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 01:14	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Dichlorofluoromethane	*2.1*		*ug/L*		*2.69*	*75-43-4*		*08/24/16 01:14*	*1*
1,2-Dichloro-1,1,2-trifluoroethane	*2.0*		*ug/L*		*3.04*	*354-23-4*		*08/24/16 01:14*	*1*
2-Butanone (MEK)	*11*		*ug/L*		*5.18*	*78-93-3*		*08/24/16 01:14*	*1*
Tetrahydrofuran	*430*		*ug/L*		*5.80*	*109-99-9*		*08/24/16 01:14*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 01:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/24/16 01:14*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*08/24/16 01:14*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/24/16 01:14*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.47**	**J**	0.48	0.096	ug/L		08/19/16 11:45	08/22/16 17:21	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_EW3_20160818

Lab Sample ID: 440-156068-7
Date Collected: 08/18/16 11:37
Matrix: Water
Date Received: 08/18/16 19:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	53		36 - 90	08/19/16 11:45	08/22/16 17:21	1

Client Sample ID: OC_GW_EW1_20160818

Lab Sample ID: 440-156068-8
Date Collected: 08/18/16 11:54
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 02:10	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 02:10	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 02:10	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 02:10	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 02:10	1
Chloroform	**9.4**		1.0	0.25	ug/L			08/24/16 02:10	1
Chloromethane	**1.3**		1.0	0.25	ug/L			08/24/16 02:10	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 02:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 02:10	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 02:10	1
1,1-Dichloroethane	**0.42**	**J**	1.0	0.25	ug/L			08/24/16 02:10	1
1,2-Dichloroethane	**2.2**		1.0	0.25	ug/L			08/24/16 02:10	1
1,1-Dichloroethene	**14**		1.0	0.25	ug/L			08/24/16 02:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 02:10	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 02:10	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 02:10	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 02:10	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 02:10	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 02:10	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 02:10	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 02:10	1

Client Sample ID: OC_GW_EW1_20160818

Lab Sample ID: 440-156068-8

Date Collected: 08/18/16 11:54
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Tetrachloroethene	**220**		1.0	0.25	ug/L			08/24/16 02:10	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 02:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 02:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 02:10	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,1,2-Trichloroethane	**0.29**	**J**	1.0	0.25	ug/L			08/24/16 02:10	1
Trichloroethene	**20**		1.0	0.25	ug/L			08/24/16 02:10	1
Trichlorofluoromethane	**4.6**		1.0	0.25	ug/L			08/24/16 02:10	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 02:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**20**		5.0	0.50	ug/L			08/24/16 02:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 02:10	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 02:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloro-1,1,2-trifluoroethane	*1.1*	*J*	*ug/L*		*3.03*	*354-23-4*		*08/24/16 02:10*	*1*
Tetrahydrofuran	*1500*	*E*	*ug/L*		*5.80*	*109-99-9*		*08/24/16 02:10*	*1*
Unknown	*2.5*	*T J*	*ug/L*		*6.07*			*08/24/16 02:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/24/16 02:10*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*08/24/16 02:10*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*08/24/16 02:10*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**23**		4.8	0.97	ug/L		08/19/16 11:45	08/23/16 22:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*54*		*36 - 90*	*08/19/16 11:45*	*08/23/16 22:50*	*10*

Client Sample ID: OC_GW_OW4B_20160818

Lab Sample ID: 440-156068-9

Date Collected: 08/18/16 14:15
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 03:06	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 03:06	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1

Client Sample ID: OC_GW_OW4B_20160818

Lab Sample ID: 440-156068-9

Date Collected: 08/18/16 14:15

Matrix: Water

Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		1.0	0.40	ug/L			08/24/16 03:06	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 03:06	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 03:06	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 03:06	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 03:06	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 03:06	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,2-Dichloroethane	**0.53**	**J**	1.0	0.25	ug/L			08/24/16 03:06	1
1,1-Dichloroethene	**3.8**		1.0	0.25	ug/L			08/24/16 03:06	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 03:06	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 03:06	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 03:06	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 03:06	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 03:06	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 03:06	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 03:06	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Tetrachloroethene	**8.8**		1.0	0.25	ug/L			08/24/16 03:06	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 03:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 03:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 03:06	1

Client Sample ID: OC_GW_OW4B_20160818

Lab Sample ID: 440-156068-9

Date Collected: 08/18/16 14:15
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Trichloroethene	**2.6**		1.0	0.25	ug/L			08/24/16 03:06	1
Trichlorofluoromethane	**0.59**	**J**	1.0	0.25	ug/L			08/24/16 03:06	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 03:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**9.3**		5.0	0.50	ug/L			08/24/16 03:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:06	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 03:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Dichlorofluoromethane	*1.1*		*ug/L*		*2.69*	*75-43-4*		*08/24/16 03:06*	*1*
1,2-Dichloro-1,1,2-trifluoroethane	*5.7*		*ug/L*		*3.04*	*354-23-4*		*08/24/16 03:06*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 03:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/24/16 03:06*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/24/16 03:06*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*08/24/16 03:06*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.14**	**J**	0.47	0.095	ug/L		08/19/16 11:45	08/22/16 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*48*		*36 - 90*	*08/19/16 11:45*	*08/22/16 18:06*	*1*

Client Sample ID: OC_GW_OW4BN_20160818

Lab Sample ID: 440-156068-10

Date Collected: 08/18/16 15:00
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 03:34	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 03:34	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 03:34	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 03:34	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 03:34	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 03:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1

Client Sample ID: OC_GW_OW4BN_20160818

Lab Sample ID: 440-156068-10

Date Collected: 08/18/16 15:00

Matrix: Water

Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 03:34	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 03:34	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 03:34	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 03:34	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 03:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 03:34	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 03:34	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 03:34	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 03:34	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 03:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 03:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 03:34	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Trichloroethene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 03:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/24/16 03:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 03:34	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 03:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Butanone (MEK)	*4.7*	*J*	*ug/L*		*5.19*	*78-93-3*		*08/24/16 03:34*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 03:34*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/24/16 03:34	1
Dibromofluoromethane (Surr)	106		76 - 132		08/24/16 03:34	1
Toluene-d8 (Surr)	104		80 - 128		08/24/16 03:34	1

Client Sample ID: OC_GW_TB1_20160818

Lab Sample ID: 440-156068-11

Date Collected: 08/18/16 07:00

Matrix: Water

Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 04:57	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 04:57	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 04:57	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 04:57	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 04:57	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 04:57	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 04:57	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 04:57	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 04:57	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 04:57	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 04:57	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 04:57	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 04:57	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 04:57	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 04:57	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1

Client Sample ID: OC_GW_TB1_20160818

Lab Sample ID: 440-156068-11

Date Collected: 08/18/16 07:00
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 04:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 04:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 04:57	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Trichloroethene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/24/16 04:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 04:57	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 04:57	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 04:57*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*08/24/16 04:57*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*08/24/16 04:57*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*08/24/16 04:57*	*1*

Client Sample ID: OC_GW_TB2_20160818

Lab Sample ID: 440-156068-12

Date Collected: 08/18/16 07:00
Matrix: Water
Date Received: 08/18/16 19:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/24/16 05:25	1
Benzene	ND		0.50	0.25	ug/L			08/24/16 05:25	1
Bromobenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Bromoform	ND		1.0	0.40	ug/L			08/24/16 05:25	1
Bromomethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/24/16 05:25	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Chloroethane	ND		1.0	0.40	ug/L			08/24/16 05:25	1
Chloroform	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Chloromethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 05:25	1

Client Sample ID: OC_GW_TB2_20160818

Lab Sample ID: 440-156068-12

Date Collected: 08/18/16 07:00
Matrix: Water
Date Received: 08/18/16 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/24/16 05:25	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Dibromomethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/24/16 05:25	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/24/16 05:25	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Isopropyl alcohol	ND		250	180	ug/L			08/24/16 05:25	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/24/16 05:25	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/24/16 05:25	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/24/16 05:25	1
Naphthalene	ND		1.0	0.40	ug/L			08/24/16 05:25	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/24/16 05:25	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
o-Xylene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Styrene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Toluene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/24/16 05:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 05:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/24/16 05:25	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Trichloroethene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/24/16 05:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/24/16 05:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/24/16 05:25	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/24/16 05:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 05:25*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		08/24/16 05:25	1
Dibromofluoromethane (Surr)	103		76 - 132		08/24/16 05:25	1
Toluene-d8 (Surr)	103		80 - 128		08/24/16 05:25	1

Method Summary

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_DPE9_20160818 — Lab Sample ID: 440-156068-1

Date Collected: 08/18/16 07:06 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/23/16 22:25	AA	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	351386	08/23/16 22:53	AA	TAL IRV
Total/NA	Prep	3520C			1060 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		10			350992	08/22/16 15:07	AI	TAL IRV

Client Sample ID: OC_GW_OW3B_20160818 — Lab Sample ID: 440-156068-2

Date Collected: 08/18/16 09:04 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/23/16 23:22	AA	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 15:29	AI	TAL IRV

Client Sample ID: OC_GW_OW3BK_20160818 — Lab Sample ID: 440-156068-3

Date Collected: 08/18/16 09:04 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/23/16 23:50	AA	TAL IRV
Total/NA	Prep	3520C			1055 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 15:51	AI	TAL IRV

Client Sample ID: OC_GW_EW5_20160818 — Lab Sample ID: 440-156068-4

Date Collected: 08/18/16 09:15 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 00:18	AA	TAL IRV
Total/NA	Prep	3520C			1050 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 16:14	AI	TAL IRV

Client Sample ID: OC_GW_EW4_20160818 — Lab Sample ID: 440-156068-5

Date Collected: 08/18/16 09:51 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 00:46	AA	TAL IRV
Total/NA	Prep	3520C			1055 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 16:36	AI	TAL IRV

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_OW8B_20160818 — Lab Sample ID: 440-156068-6

Date Collected: 08/18/16 11:23 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/23/16 21:02	AA	TAL IRV
Total/NA	Prep	3520C			1045 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 16:59	AI	TAL IRV

Client Sample ID: OC_GW_EW3_20160818 — Lab Sample ID: 440-156068-7

Date Collected: 08/18/16 11:37 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 01:14	AA	TAL IRV
Total/NA	Prep	3520C			1045 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 17:21	AI	TAL IRV

Client Sample ID: OC_GW_EW1_20160818 — Lab Sample ID: 440-156068-8

Date Collected: 08/18/16 11:54 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 02:10	AA	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		10			351273	08/23/16 22:50	AI	TAL IRV

Client Sample ID: OC_GW_OW4B_20160818 — Lab Sample ID: 440-156068-9

Date Collected: 08/18/16 14:15 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 03:06	AA	TAL IRV
Total/NA	Prep	3520C			1055 mL	1 mL	350500	08/19/16 11:45	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		1			350992	08/22/16 18:06	AI	TAL IRV

Client Sample ID: OC_GW_OW4BN_20160818 — Lab Sample ID: 440-156068-10

Date Collected: 08/18/16 15:00 — **Matrix: Water**
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 03:34	AA	TAL IRV

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Client Sample ID: OC_GW_TB1_20160818

Lab Sample ID: 440-156068-11
Date Collected: 08/18/16 07:00
Matrix: Water
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 04:57	AA	TAL IRV

Client Sample ID: OC_GW_TB2_20160818

Lab Sample ID: 440-156068-12
Date Collected: 08/18/16 07:00
Matrix: Water
Date Received: 08/18/16 19:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351386	08/24/16 05:25	AA	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/23/16 19:38	1
Benzene	ND		0.50	0.25	ug/L			08/23/16 19:38	1
Bromobenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Bromoform	ND		1.0	0.40	ug/L			08/23/16 19:38	1
Bromomethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/23/16 19:38	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Chloroethane	ND		1.0	0.40	ug/L			08/23/16 19:38	1
Chloroform	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Chloromethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 19:38	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/23/16 19:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Dibromomethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/23/16 19:38	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/23/16 19:38	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Isopropyl alcohol	ND		250	180	ug/L			08/23/16 19:38	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/23/16 19:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/23/16 19:38	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/23/16 19:38	1
Naphthalene	ND		1.0	0.40	ug/L			08/23/16 19:38	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/23/16 19:38	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
o-Xylene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Styrene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1

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

Lab Sample ID: MB 440-351386/4
Matrix: Water
Analysis Batch: 351386

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Toluene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/23/16 19:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 19:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/23/16 19:38	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Trichloroethene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/23/16 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/23/16 19:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/23/16 19:38	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/23/16 19:38	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 19:38*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*08/23/16 19:38*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*08/23/16 19:38*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*08/23/16 19:38*	*1*

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.9		ug/L		91	10 - 150
Benzene	25.0	25.1		ug/L		100	68 - 130
Bromobenzene	25.0	26.5		ug/L		106	70 - 130
Bromochloromethane	25.0	26.7		ug/L		107	70 - 130
Bromodichloromethane	25.0	25.9		ug/L		104	70 - 132
Bromoform	25.0	24.0		ug/L		96	60 - 148
Bromomethane	25.0	23.8		ug/L		95	64 - 139
Carbon tetrachloride	25.0	23.0		ug/L		92	60 - 150
Chlorobenzene	25.0	24.9		ug/L		99	70 - 130
Chloroethane	25.0	24.1		ug/L		96	64 - 135
Chloroform	25.0	24.9		ug/L		100	70 - 130
Chloromethane	25.0	21.5		ug/L		86	47 - 140
2-Chlorotoluene	25.0	25.7		ug/L		103	70 - 130
4-Chlorotoluene	25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	25.0	25.5		ug/L		102	70 - 133
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 133
Dibromochloromethane	25.0	25.3		ug/L		101	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.0		ug/L		92	52 - 140

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	25.0	25.4		ug/L		102	70 - 130
Dibromomethane	25.0	25.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
1,3-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	17.1		ug/L		69	29 - 150
1,1-Dichloroethane	25.0	24.3		ug/L		97	64 - 130
1,2-Dichloroethane	25.0	25.3		ug/L		101	57 - 138
1,1-Dichloroethene	25.0	23.2		ug/L		93	70 - 130
1,2-Dichloropropane	25.0	26.6		ug/L		106	67 - 130
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
2,2-Dichloropropane	25.0	23.3		ug/L		93	68 - 141
1,1-Dichloropropene	25.0	23.5		ug/L		94	70 - 130
Ethylbenzene	25.0	24.1		ug/L		96	70 - 130
Hexachlorobutadiene	25.0	25.5		ug/L		102	10 - 150
Isopropylbenzene	25.0	25.5		ug/L		102	70 - 136
Methylene Chloride	25.0	26.5		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.0		ug/L		100	63 - 131
m,p-Xylene	25.0	25.4		ug/L		102	70 - 130
Naphthalene	25.0	28.1		ug/L		112	60 - 140
n-Butylbenzene	25.0	25.8		ug/L		103	65 - 150
N-Propylbenzene	25.0	26.0		ug/L		104	67 - 139
o-Xylene	25.0	25.3		ug/L		101	70 - 130
p-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 132
sec-Butylbenzene	25.0	25.3		ug/L		101	70 - 138
Styrene	25.0	25.6		ug/L		103	70 - 134
tert-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.2		ug/L		97	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	63 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	70 - 130
Toluene	25.0	24.6		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	25.0	25.5		ug/L		102	70 - 132
1,2,3-Trichlorobenzene	25.0	28.6		ug/L		114	60 - 140
1,2,4-Trichlorobenzene	25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	25.0	22.7		ug/L		91	70 - 130
1,1,2-Trichloroethane	25.0	25.9		ug/L		104	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	21.2		ug/L		85	60 - 150
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	22.4		ug/L		89	60 - 140
1,2,4-Trimethylbenzene	25.0	26.4		ug/L		105	70 - 135
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 136
Vinyl chloride	25.0	22.6		ug/L		90	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

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

Lab Sample ID: LCS 440-351386/5
Matrix: Water
Analysis Batch: 351386

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Lab Sample ID: LCS 440-351386/6
Matrix: Water
Analysis Batch: 351386

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	310		ug/L		124	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-156068-6 MS
Matrix: Water
Analysis Batch: 351386

Client Sample ID: OC_GW_OW8B_20160818
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	29.1		ug/L		116	10 - 150
Benzene	ND		25.0	25.1		ug/L		100	66 - 130
Bromobenzene	ND		25.0	25.2		ug/L		101	70 - 130
Bromochloromethane	ND		25.0	25.9		ug/L		103	70 - 130
Bromodichloromethane	ND		25.0	25.3		ug/L		101	70 - 138
Bromoform	ND		25.0	23.3		ug/L		93	59 - 150
Bromomethane	ND		25.0	23.4		ug/L		94	62 - 131
Carbon tetrachloride	ND		25.0	23.1		ug/L		92	60 - 150
Chlorobenzene	ND		25.0	24.1		ug/L		96	70 - 130
Chloroethane	ND		25.0	23.8		ug/L		95	68 - 130
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130
Chloromethane	ND		25.0	21.9		ug/L		88	39 - 144
2-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
cis-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 133
Dibromochloromethane	ND		25.0	24.6		ug/L		99	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.7		ug/L		91	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	24.4		ug/L		98	70 - 131
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.3		ug/L		101	70 - 130
Dichlorodifluoromethane	ND		25.0	17.0		ug/L		68	25 - 142
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146
1,1-Dichloroethene	ND		25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropane	ND		25.0	26.5		ug/L		106	69 - 130

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

Lab Sample ID: 440-156068-6 MS — **Client Sample ID: OC_GW_OW8B_20160818**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351386

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130
2,2-Dichloropropane	ND		25.0	23.4		ug/L		94	69 - 138
1,1-Dichloropropene	ND		25.0	24.0		ug/L		96	64 - 130
Ethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130
Hexachlorobutadiene	ND		25.0	25.6		ug/L		102	10 - 150
Isopropyl alcohol	ND		250	267		ug/L		107	46 - 142
Isopropylbenzene	ND		25.0	24.9		ug/L		99	70 - 132
Methylene Chloride	ND		25.0	26.2		ug/L		105	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.6		ug/L		98	70 - 130
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140
n-Butylbenzene	ND		25.0	26.5		ug/L		106	61 - 149
N-Propylbenzene	ND		25.0	25.9		ug/L		104	66 - 135
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133
p-Isopropyltoluene	ND		25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	ND		25.0	25.4		ug/L		102	67 - 134
Styrene	ND		25.0	25.4		ug/L		102	29 - 150
tert-Butylbenzene	ND		25.0	25.6		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	23.1		ug/L		92	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	23.4		ug/L		94	63 - 130
Tetrachloroethene	22		25.0	42.6		ug/L		82	70 - 137
Toluene	ND		25.0	24.1		ug/L		97	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	ND		25.0	25.9		ug/L		104	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	28.7		ug/L		115	60 - 140
1,1,1-Trichloroethane	ND		25.0	22.5		ug/L		90	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.2		ug/L		97	70 - 130
Trichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
Trichlorofluoromethane	ND		25.0	21.1		ug/L		84	60 - 150
1,2,3-Trichloropropane	ND		25.0	22.9		ug/L		92	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

Lab Sample ID: 440-156068-6 MSD — **Client Sample ID: OC_GW_OW8B_20160818**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	27.5		ug/L		110	10 - 150	6	35

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

Lab Sample ID: 440-156068-6 MSD
Matrix: Water
Analysis Batch: 351386

Client Sample ID: OC_GW_OW8B_20160818
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	25.1		ug/L		101	66 - 130	0	20
Bromobenzene	ND		25.0	25.6		ug/L		103	70 - 130	2	20
Bromochloromethane	ND		25.0	25.4		ug/L		101	70 - 130	2	25
Bromodichloromethane	ND		25.0	26.3		ug/L		105	70 - 138	4	20
Bromoform	ND		25.0	23.0		ug/L		92	59 - 150	2	25
Bromomethane	ND		25.0	23.6		ug/L		94	62 - 131	1	25
Carbon tetrachloride	ND		25.0	23.3		ug/L		93	60 - 150	1	25
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloroethane	ND		25.0	23.9		ug/L		96	68 - 130	1	25
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130	0	20
Chloromethane	ND		25.0	22.1		ug/L		88	39 - 144	1	25
2-Chlorotoluene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	70 - 133	2	20
Dibromochloromethane	ND		25.0	24.4		ug/L		97	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	22.1		ug/L		88	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	24.0		ug/L		96	70 - 131	2	25
Dibromomethane	ND		25.0	25.1		ug/L		100	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	18.2		ug/L		73	25 - 142	7	30
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130	0	20
1,2-Dichloroethane	ND		25.0	25.1		ug/L		100	56 - 146	3	20
1,1-Dichloroethene	ND		25.0	26.9		ug/L		108	70 - 130	0	20
1,2-Dichloropropane	ND		25.0	26.3		ug/L		105	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	24.7		ug/L		99	70 - 130	0	25
2,2-Dichloropropane	ND		25.0	23.8		ug/L		95	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	24.2		ug/L		97	64 - 130	1	20
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	25.2		ug/L		101	10 - 150	2	20
Isopropyl alcohol	ND		250	310		ug/L		124	46 - 142	15	40
Isopropylbenzene	ND		25.0	25.0		ug/L		100	70 - 132	1	20
Methylene Chloride	ND		25.0	26.4		ug/L		105	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.5		ug/L		98	70 - 130	0	25
m,p-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	1	25
Naphthalene	ND		25.0	27.3		ug/L		109	60 - 140	1	30
n-Butylbenzene	ND		25.0	26.1		ug/L		105	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.0		ug/L		104	66 - 135	0	20
o-Xylene	ND		25.0	24.8		ug/L		99	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	67 - 134	1	20
Styrene	ND		25.0	25.7		ug/L		103	29 - 150	1	35
tert-Butylbenzene	ND		25.0	25.4		ug/L		101	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	23.9		ug/L		95	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.9		ug/L		92	63 - 130	2	30
Tetrachloroethene	22		25.0	42.5		ug/L		82	70 - 137	0	20

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

Lab Sample ID: 440-156068-6 MSD — **Client Sample ID: OC_GW_OW8B_20160818**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	ND		25.0	24.4		ug/L		98	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	26.1		ug/L		105	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.6		ug/L		111	60 - 140	2	20
1,2,4-Trichlorobenzene	ND		25.0	28.6		ug/L		114	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	22.6		ug/L		90	70 - 130	0	20
1,1,2-Trichloroethane	ND		25.0	24.4		ug/L		97	70 - 130	1	25
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	20.9		ug/L		84	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	21.5		ug/L		86	60 - 130	6	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	22.8		ug/L		91	60 - 140	0	20
1,2,4-Trimethylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	0	25
1,3,5-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130	1	20
Vinyl chloride	ND		25.0	21.7		ug/L		87	50 - 137	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-350500/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/19/16 11:45	08/22/16 13:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*55*		*36 - 90*	*08/19/16 11:45*	*08/22/16 13:37*	*1*

Lab Sample ID: LCS 440-350500/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 350992 — **Prep Batch: 350500**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.12		ug/L		56	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*51*		*36 - 90*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 440-350500/3-A
Matrix: Water
Analysis Batch: 350992

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350500

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.01		ug/L		50	36 - 120	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*47*		*36 - 90*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

GC/MS VOA

Analysis Batch: 351386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156068-1	OC_GW_DPE9_20160818	Total/NA	Water	8260B	
440-156068-1 - DL	OC_GW_DPE9_20160818	Total/NA	Water	8260B	
440-156068-2	OC_GW_OW3B_20160818	Total/NA	Water	8260B	
440-156068-3	OC_GW_OW3BK_20160818	Total/NA	Water	8260B	
440-156068-4	OC_GW_EW5_20160818	Total/NA	Water	8260B	
440-156068-5	OC_GW_EW4_20160818	Total/NA	Water	8260B	
440-156068-6	OC_GW_OW8B_20160818	Total/NA	Water	8260B	
440-156068-7	OC_GW_EW3_20160818	Total/NA	Water	8260B	
440-156068-8	OC_GW_EW1_20160818	Total/NA	Water	8260B	
440-156068-9	OC_GW_OW4B_20160818	Total/NA	Water	8260B	
440-156068-10	OC_GW_OW4BN_20160818	Total/NA	Water	8260B	
440-156068-11	OC_GW_TB1_20160818	Total/NA	Water	8260B	
440-156068-12	OC_GW_TB2_20160818	Total/NA	Water	8260B	
MB 440-351386/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351386/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-351386/6	Lab Control Sample	Total/NA	Water	8260B	
440-156068-6 MS	OC_GW_OW8B_20160818	Total/NA	Water	8260B	
440-156068-6 MSD	OC_GW_OW8B_20160818	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 350500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156068-1	OC_GW_DPE9_20160818	Total/NA	Water	3520C	
440-156068-2	OC_GW_OW3B_20160818	Total/NA	Water	3520C	
440-156068-3	OC_GW_OW3BK_20160818	Total/NA	Water	3520C	
440-156068-4	OC_GW_EW5_20160818	Total/NA	Water	3520C	
440-156068-5	OC_GW_EW4_20160818	Total/NA	Water	3520C	
440-156068-6	OC_GW_OW8B_20160818	Total/NA	Water	3520C	
440-156068-7	OC_GW_EW3_20160818	Total/NA	Water	3520C	
440-156068-8	OC_GW_EW1_20160818	Total/NA	Water	3520C	
440-156068-9	OC_GW_OW4B_20160818	Total/NA	Water	3520C	
MB 440-350500/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 350992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156068-1	OC_GW_DPE9_20160818	Total/NA	Water	8270C SIM	350500
440-156068-2	OC_GW_OW3B_20160818	Total/NA	Water	8270C SIM	350500
440-156068-3	OC_GW_OW3BK_20160818	Total/NA	Water	8270C SIM	350500
440-156068-4	OC_GW_EW5_20160818	Total/NA	Water	8270C SIM	350500
440-156068-5	OC_GW_EW4_20160818	Total/NA	Water	8270C SIM	350500
440-156068-6	OC_GW_OW8B_20160818	Total/NA	Water	8270C SIM	350500
440-156068-7	OC_GW_EW3_20160818	Total/NA	Water	8270C SIM	350500
440-156068-9	OC_GW_OW4B_20160818	Total/NA	Water	8270C SIM	350500
MB 440-350500/1-A	Method Blank	Total/NA	Water	8270C SIM	350500
LCS 440-350500/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	350500
LCSD 440-350500/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	350500

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

GC/MS Semi VOA (Continued)

Analysis Batch: 351273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156068-8	OC_GW_EW1_20160818	Total/NA	Water	8270C SIM	350500

Definitions/Glossary

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Qualifiers

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.

GC/MS VOA TICs

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.
J	Indicates an Estimated Value for TICs
T	Result is a tentatively identified compound (TIC) and an estimated value.
E	Result exceeded calibration range.

GC/MS Semi 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: de maximis, inc.
Project/Site: Omega Chemical-2016 Semi-Annual GWM

TestAmerica Job ID: 440-156068-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date:	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of ____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Semi-Ann. GWM August	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DP59 _201608 18	8/18/16	0706	Grab	GW	5			x	x	Level III
OC_GW_OW3B _201608 18	"	0904	Grab	GW	5			x	x	
OC_GW_OW3BK _201608 18	"	0904	Grab	GW	5			x	x	
OC_GW_EW5 _201608 18	"	0915	Grab	GW	5			x	x	
OC_GW_EW4 _201608 18	"	0951	Grab	GW	5			x	x	
OC_GW_OW8B _201608 18	"	1123	Grab	GW	5			x	x	
OC_GW_EW3 _201608 18	"	1137	Grab	GW	5			x	x	
OC_GW_EW1 _201608 18	"	1154	Grab	GW	5			x	x	
OC_GW_OW4B _201608 18	"	1415	Grab	GW	5			x	x	
OC_GW_OW4BN _201608 18	"	1500	Grab	GW	5			x	/	
OC_GW_TB2 _201608	"	~~0800~~ 0700		H2O	3			x		
OC_GW_TB2 _20160818	"	0700		H_2O	3					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

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

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JHA	8/18/16 1534	[signature]	AXT	8/18/16 15:34
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date:	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of ____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Semi-Ann. GWM August	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE9 _20160818	8/18/16	0706	Grab	GW	5			x	x	Level III
OC_GW_OW3B _20160818	"	0904	Grab	GW	5			x	x	
OC_GW_OW3BK _20160818	"	0904	Grab	GW	5			x	x	
OC_GW_EW5 _20160818	"	0915	Grab	GW	5			x	x	
OC_GW_EW4 _20160818	"	0951	Grab	GW	5			x	x	
OC_GW_OW8B _20160818	"	1123	Grab	GW	5			x	x	
OC_GW_EW3 _20160818	"	1137	Grab	GW	5			x	x	
OC_GW_EW1 _20160818	"	1154	Grab	GW	5			x	x	
OC_GW_OW4B _20160818	"	1415	Grab	GW	5			x	x	
OC_GW_OW4BN _20160818	"	1500	Grab	GW	5			x	x	
OC_GW_TB2_201608	"	~~0800~~ (R) 0700		H2O	3			x		
oc_gw_TB2_20160818	"	0700		H_2O	3					

440-156068 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JHA	8/18/16 1534	[signature]	MX.Y	8.18.16 15:38
Relinquished by: [signature]	Company: MX.Y	Date/Time: 8.18.16 10:00	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA-F	Date/Time: 8/18/16 1900

5.8/5.1
XG/4.2 #77

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-156068-1

Login Number: 156068
List Number: 1
Creator: Escalante, Maria I

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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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ANALYTICAL REPORT

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

TestAmerica Job ID: 440-156143-1
Client Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

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

Attn: Jaime Dinello

Authorized for release by:
8/31/2016 7:26:40 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

LINKS

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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 Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-156143-1	OC_GW_OW10_20160819	Water	08/19/16 08:36	08/19/16 17:00
440-156143-2	OC_GW_PZ9_20160819	Water	08/19/16 10:00	08/19/16 17:00
440-156143-3	OC_GW_OW11_20160819	Water	08/19/16 11:55	08/19/16 17:00
440-156143-4	OC_GW_OW11K_20160819	Water	08/19/16 11:55	08/19/16 17:00
440-156143-5	OC_GW_OW9_20160819	Water	08/19/16 13:00	08/19/16 17:00
440-156143-6	OC_GW_OW11N_20160819	Water	08/19/16 13:15	08/19/16 17:00
440-156143-7	OC_GW_TB_20160819	Water	08/19/16 07:00	08/19/16 17:00

Job ID: 440-156143-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-156143-1

Comments
No additional comments.

Receipt
The samples were received on 8/19/2016 5:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

GC/MS VOA
Method(s) 8260B: The method blank for analytical batch 440-351905 contained Methylene Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or 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.

GC/MS Semi VOA
Method(s) 8270C SIM: The following samples required a dilution due to the nature of the sample matrix: OC_GW_PZ9_20160819 (440-156143-2) and OC_GW_OW9_20160819 (440-156143-5). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-350818 and analytical batch 440-351273. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

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

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

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW10_20160819

Lab Sample ID: 440-156143-1

Date Collected: 08/19/16 08:36
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/25/16 21:23	1
Benzene	ND		0.50	0.25	ug/L			08/25/16 21:23	1
Bromobenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Bromoform	ND		1.0	0.40	ug/L			08/25/16 21:23	1
Bromomethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/25/16 21:23	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Chloroethane	ND		1.0	0.40	ug/L			08/25/16 21:23	1
Chloroform	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Chloromethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 21:23	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/25/16 21:23	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Dibromomethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/25/16 21:23	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,1-Dichloroethene	**10**		1.0	0.25	ug/L			08/25/16 21:23	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/25/16 21:23	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Isopropyl alcohol	ND		250	180	ug/L			08/25/16 21:23	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/25/16 21:23	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/25/16 21:23	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/25/16 21:23	1
Naphthalene	ND		1.0	0.40	ug/L			08/25/16 21:23	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/25/16 21:23	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
o-Xylene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Styrene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Tetrachloroethene	**19**		1.0	0.25	ug/L			08/25/16 21:23	1

Client Sample ID: OC_GW_OW10_20160819 — Lab Sample ID: 440-156143-1

Date Collected: 08/19/16 08:36 **Matrix: Water**
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 21:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 21:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 21:23	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Trichloroethene	**1.2**		1.0	0.25	ug/L			08/25/16 21:23	1
Trichlorofluoromethane	**2.6**		1.0	0.25	ug/L			08/25/16 21:23	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/25/16 21:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**3.9**	**J**	5.0	0.50	ug/L			08/25/16 21:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 21:23	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/25/16 21:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 21:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/25/16 21:23*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*08/25/16 21:23*	*1*
Toluene-d8 (Surr)	*112*		*80 - 128*		*08/25/16 21:23*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.13**	**J**	0.48	0.096	ug/L		08/21/16 10:26	08/23/16 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*45*		*36 - 90*	*08/21/16 10:26*	*08/23/16 16:10*	*1*

Client Sample ID: OC_GW_PZ9_20160819 — Lab Sample ID: 440-156143-2

Date Collected: 08/19/16 10:00 **Matrix: Water**
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			08/25/16 23:52	10
Benzene	ND		5.0	2.5	ug/L			08/25/16 23:52	10
Bromobenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Bromochloromethane	ND		10	2.5	ug/L			08/25/16 23:52	10
Bromodichloromethane	ND		10	2.5	ug/L			08/25/16 23:52	10
Bromoform	ND		10	4.0	ug/L			08/25/16 23:52	10
Bromomethane	ND		10	2.5	ug/L			08/25/16 23:52	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			08/25/16 23:52	10
Chlorobenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Chloroethane	ND		10	4.0	ug/L			08/25/16 23:52	10
Chloroform	**250**		10	2.5	ug/L			08/25/16 23:52	10
Chloromethane	ND		10	2.5	ug/L			08/25/16 23:52	10
2-Chlorotoluene	ND		10	2.5	ug/L			08/25/16 23:52	10
4-Chlorotoluene	ND		10	2.5	ug/L			08/25/16 23:52	10

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_PZ9_20160819

Lab Sample ID: 440-156143-2
Date Collected: 08/19/16 10:00
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**4.0**	**J**	10	2.5	ug/L			08/25/16 23:52	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/25/16 23:52	10
Dibromochloromethane	ND		10	2.5	ug/L			08/25/16 23:52	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			08/25/16 23:52	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			08/25/16 23:52	10
Dibromomethane	ND		10	2.5	ug/L			08/25/16 23:52	10
1,2-Dichlorobenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			08/25/16 23:52	10
1,1-Dichloroethane	**7.5**	**J**	10	2.5	ug/L			08/25/16 23:52	10
1,2-Dichloroethane	**51**		10	2.5	ug/L			08/25/16 23:52	10
1,1-Dichloroethene	**290**		10	2.5	ug/L			08/25/16 23:52	10
1,2-Dichloropropane	ND		10	2.5	ug/L			08/25/16 23:52	10
1,3-Dichloropropane	ND		10	2.5	ug/L			08/25/16 23:52	10
2,2-Dichloropropane	ND		10	4.0	ug/L			08/25/16 23:52	10
1,1-Dichloropropene	ND		10	2.5	ug/L			08/25/16 23:52	10
Ethylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Hexachlorobutadiene	ND		10	2.5	ug/L			08/25/16 23:52	10
Isopropyl alcohol	ND		2500	1800	ug/L			08/25/16 23:52	10
Isopropylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Methylene Chloride	ND		50	8.8	ug/L			08/25/16 23:52	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			08/25/16 23:52	10
m,p-Xylene	ND		10	5.0	ug/L			08/25/16 23:52	10
Naphthalene	ND		10	4.0	ug/L			08/25/16 23:52	10
n-Butylbenzene	ND		10	4.0	ug/L			08/25/16 23:52	10
N-Propylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
o-Xylene	ND		10	2.5	ug/L			08/25/16 23:52	10
p-Isopropyltoluene	ND		10	2.5	ug/L			08/25/16 23:52	10
sec-Butylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Styrene	ND		10	2.5	ug/L			08/25/16 23:52	10
tert-Butylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			08/25/16 23:52	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			08/25/16 23:52	10
Toluene	ND		10	2.5	ug/L			08/25/16 23:52	10
trans-1,2-Dichloroethene	**2.6**	**J**	10	2.5	ug/L			08/25/16 23:52	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			08/25/16 23:52	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			08/25/16 23:52	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			08/25/16 23:52	10
1,1,1-Trichloroethane	ND		10	2.5	ug/L			08/25/16 23:52	10
1,1,2-Trichloroethane	**3.5**	**J**	10	2.5	ug/L			08/25/16 23:52	10
Trichloroethene	**190**		10	2.5	ug/L			08/25/16 23:52	10
Trichlorofluoromethane	**96**		10	2.5	ug/L			08/25/16 23:52	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			08/25/16 23:52	10
1,1,2-Trichloro-1,2,2-trifluoroethane	**280**		50	5.0	ug/L			08/25/16 23:52	10
1,2,4-Trimethylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			08/25/16 23:52	10
Vinyl chloride	ND		5.0	2.5	ug/L			08/25/16 23:52	10

Client Sample ID: OC_GW_PZ9_20160819 — Lab Sample ID: 440-156143-2

Date Collected: 08/19/16 10:00 **Matrix: Water**
Date Received: 08/19/16 17:00

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
2-Methyl-2-propanol	210		ug/L		4.84	75-65-0		08/25/16 23:52	10
Tentatively Identified Compound	None		ug/L					08/25/16 23:52	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		08/25/16 23:52	10
Dibromofluoromethane (Surr)	113		76 - 132		08/25/16 23:52	10
Toluene-d8 (Surr)	113		80 - 128		08/25/16 23:52	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**3000**		50	13	ug/L			08/26/16 00:22	50

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/26/16 00:22	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		08/26/16 00:22	50
Dibromofluoromethane (Surr)	114		76 - 132		08/26/16 00:22	50
Toluene-d8 (Surr)	113		80 - 128		08/26/16 00:22	50

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**190**		24	4.8	ug/L		08/21/16 10:26	08/23/16 23:13	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	39		36 - 90	08/21/16 10:26	08/23/16 23:13	50

Client Sample ID: OC_GW_OW11_20160819 — Lab Sample ID: 440-156143-3

Date Collected: 08/19/16 11:55 **Matrix: Water**
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/26/16 00:52	1
Benzene	ND		0.50	0.25	ug/L			08/26/16 00:52	1
Bromobenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Bromoform	ND		1.0	0.40	ug/L			08/26/16 00:52	1
Bromomethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/26/16 00:52	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Chloroethane	ND		1.0	0.40	ug/L			08/26/16 00:52	1
Chloroform	**0.36**	**J**	1.0	0.25	ug/L			08/26/16 00:52	1
Chloromethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/26/16 00:52	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/26/16 00:52	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/26/16 00:52	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW11_20160819

Lab Sample ID: 440-156143-3
Date Collected: 08/19/16 11:55
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/26/16 00:52	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,1-Dichloroethene	**30**		1.0	0.25	ug/L			08/26/16 00:52	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/26/16 00:52	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Isopropyl alcohol	ND		250	180	ug/L			08/26/16 00:52	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/26/16 00:52	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/26/16 00:52	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/26/16 00:52	1
Naphthalene	ND		1.0	0.40	ug/L			08/26/16 00:52	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/26/16 00:52	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
o-Xylene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Styrene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Toluene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/26/16 00:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/26/16 00:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/26/16 00:52	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Trichloroethene	**38**		1.0	0.25	ug/L			08/26/16 00:52	1
Trichlorofluoromethane	**19**		1.0	0.25	ug/L			08/26/16 00:52	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/26/16 00:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**57**		5.0	0.50	ug/L			08/26/16 00:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/26/16 00:52	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/26/16 00:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Methyl-2-propanol	*18*		*ug/L*		*4.85*	*75-65-0*		*08/26/16 00:52*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 00:52*	*1*

Client Sample ID: OC_GW_OW11_20160819

Lab Sample ID: 440-156143-3
Date Collected: 08/19/16 11:55
Matrix: Water
Date Received: 08/19/16 17:00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		08/26/16 00:52	1
Dibromofluoromethane (Surr)	113		76 - 132		08/26/16 00:52	1
Toluene-d8 (Surr)	109		80 - 128		08/26/16 00:52	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**150**		5.0	1.3	ug/L			08/26/16 01:22	5

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/26/16 01:22	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		08/26/16 01:22	5
Dibromofluoromethane (Surr)	117		76 - 132		08/26/16 01:22	5
Toluene-d8 (Surr)	109		80 - 128		08/26/16 01:22	5

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.92**		0.48	0.095	ug/L		08/21/16 10:26	08/23/16 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	51		36 - 90	08/21/16 10:26	08/23/16 16:55	1

Client Sample ID: OC_GW_OW11K_20160819

Lab Sample ID: 440-156143-4
Date Collected: 08/19/16 11:55
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/26/16 01:52	1
Benzene	ND		0.50	0.25	ug/L			08/26/16 01:52	1
Bromobenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Bromoform	ND		1.0	0.40	ug/L			08/26/16 01:52	1
Bromomethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/26/16 01:52	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Chloroethane	ND		1.0	0.40	ug/L			08/26/16 01:52	1
Chloroform	**0.43**	**J**	1.0	0.25	ug/L			08/26/16 01:52	1
Chloromethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/26/16 01:52	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/26/16 01:52	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Dibromomethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW11K_20160819

Lab Sample ID: 440-156143-4

Date Collected: 08/19/16 11:55
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/26/16 01:52	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,1-Dichloroethene	**30**		1.0	0.25	ug/L			08/26/16 01:52	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/26/16 01:52	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Isopropyl alcohol	ND		250	180	ug/L			08/26/16 01:52	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/26/16 01:52	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/26/16 01:52	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/26/16 01:52	1
Naphthalene	ND		1.0	0.40	ug/L			08/26/16 01:52	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/26/16 01:52	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
o-Xylene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Styrene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Toluene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/26/16 01:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/26/16 01:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/26/16 01:52	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Trichloroethene	**41**		1.0	0.25	ug/L			08/26/16 01:52	1
Trichlorofluoromethane	**20**		1.0	0.25	ug/L			08/26/16 01:52	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/26/16 01:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**61**		5.0	0.50	ug/L			08/26/16 01:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/26/16 01:52	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/26/16 01:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Methyl-2-propanol	*17*		*ug/L*		*4.84*	*75-65-0*		*08/26/16 01:52*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 01:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/26/16 01:52*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*08/26/16 01:52*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*08/26/16 01:52*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW11K_20160819

Lab Sample ID: 440-156143-4
Date Collected: 08/19/16 11:55
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**160**		5.0	1.3	ug/L			08/26/16 02:21	5

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 02:21*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/26/16 02:21*	*5*
Dibromofluoromethane (Surr)	*118*		*76 - 132*		*08/26/16 02:21*	*5*
Toluene-d8 (Surr)	*113*		*80 - 128*		*08/26/16 02:21*	*5*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.21**	**J**	0.48	0.095	ug/L		08/21/16 10:26	08/23/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*46*		*36 - 90*	*08/21/16 10:26*	*08/23/16 17:17*	*1*

Client Sample ID: OC_GW_OW9_20160819

Lab Sample ID: 440-156143-5
Date Collected: 08/19/16 13:00
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		400	400	ug/L			08/26/16 02:51	40
Benzene	ND		20	10	ug/L			08/26/16 02:51	40
Bromobenzene	ND		40	10	ug/L			08/26/16 02:51	40
Bromochloromethane	ND		40	10	ug/L			08/26/16 02:51	40
Bromodichloromethane	ND		40	10	ug/L			08/26/16 02:51	40
Bromoform	ND		40	16	ug/L			08/26/16 02:51	40
Bromomethane	ND		40	10	ug/L			08/26/16 02:51	40
Carbon tetrachloride	ND		20	10	ug/L			08/26/16 02:51	40
Chlorobenzene	ND		40	10	ug/L			08/26/16 02:51	40
Chloroethane	ND		40	16	ug/L			08/26/16 02:51	40
Chloroform	**530**		40	10	ug/L			08/26/16 02:51	40
Chloromethane	ND		40	10	ug/L			08/26/16 02:51	40
2-Chlorotoluene	ND		40	10	ug/L			08/26/16 02:51	40
4-Chlorotoluene	ND		40	10	ug/L			08/26/16 02:51	40
cis-1,2-Dichloroethene	ND		40	10	ug/L			08/26/16 02:51	40
cis-1,3-Dichloropropene	ND		20	10	ug/L			08/26/16 02:51	40
Dibromochloromethane	ND		40	10	ug/L			08/26/16 02:51	40
1,2-Dibromo-3-Chloropropane	ND		200	20	ug/L			08/26/16 02:51	40
1,2-Dibromoethane (EDB)	ND		40	10	ug/L			08/26/16 02:51	40
Dibromomethane	ND		40	10	ug/L			08/26/16 02:51	40
1,2-Dichlorobenzene	ND		40	10	ug/L			08/26/16 02:51	40
1,3-Dichlorobenzene	ND		40	10	ug/L			08/26/16 02:51	40
1,4-Dichlorobenzene	ND		40	10	ug/L			08/26/16 02:51	40
Dichlorodifluoromethane	ND		40	16	ug/L			08/26/16 02:51	40
1,1-Dichloroethane	**16**	**J**	40	10	ug/L			08/26/16 02:51	40
1,2-Dichloroethane	**150**		40	10	ug/L			08/26/16 02:51	40
1,1-Dichloroethene	**480**		40	10	ug/L			08/26/16 02:51	40
1,2-Dichloropropane	ND		40	10	ug/L			08/26/16 02:51	40

Client Sample ID: OC_GW_OW9_20160819

Lab Sample ID: 440-156143-5

Date Collected: 08/19/16 13:00
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichloropropane	ND		40	10	ug/L			08/26/16 02:51	40
2,2-Dichloropropane	ND		40	16	ug/L			08/26/16 02:51	40
1,1-Dichloropropene	ND		40	10	ug/L			08/26/16 02:51	40
Ethylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
Hexachlorobutadiene	ND		40	10	ug/L			08/26/16 02:51	40
Isopropyl alcohol	ND		10000	7000	ug/L			08/26/16 02:51	40
Isopropylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
Methylene Chloride	ND		200	35	ug/L			08/26/16 02:51	40
Methyl-t-Butyl Ether (MTBE)	ND		40	10	ug/L			08/26/16 02:51	40
m,p-Xylene	ND		40	20	ug/L			08/26/16 02:51	40
Naphthalene	ND		40	16	ug/L			08/26/16 02:51	40
n-Butylbenzene	ND		40	16	ug/L			08/26/16 02:51	40
N-Propylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
o-Xylene	ND		40	10	ug/L			08/26/16 02:51	40
p-Isopropyltoluene	ND		40	10	ug/L			08/26/16 02:51	40
sec-Butylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
Styrene	ND		40	10	ug/L			08/26/16 02:51	40
tert-Butylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
1,1,1,2-Tetrachloroethane	ND		40	10	ug/L			08/26/16 02:51	40
1,1,2,2-Tetrachloroethane	ND		40	10	ug/L			08/26/16 02:51	40
Toluene	ND		40	10	ug/L			08/26/16 02:51	40
trans-1,2-Dichloroethene	ND		40	10	ug/L			08/26/16 02:51	40
trans-1,3-Dichloropropene	ND		20	10	ug/L			08/26/16 02:51	40
1,2,3-Trichlorobenzene	ND		40	16	ug/L			08/26/16 02:51	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			08/26/16 02:51	40
1,1,1-Trichloroethane	ND		40	10	ug/L			08/26/16 02:51	40
1,1,2-Trichloroethane	ND		40	10	ug/L			08/26/16 02:51	40
Trichloroethene	**340**		40	10	ug/L			08/26/16 02:51	40
Trichlorofluoromethane	**110**		40	10	ug/L			08/26/16 02:51	40
1,2,3-Trichloropropane	ND		40	16	ug/L			08/26/16 02:51	40
1,1,2-Trichloro-1,2,2-trifluoroethane	**250**		200	20	ug/L			08/26/16 02:51	40
1,2,4-Trimethylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
1,3,5-Trimethylbenzene	ND		40	10	ug/L			08/26/16 02:51	40
Vinyl chloride	ND		20	10	ug/L			08/26/16 02:51	40

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Methyl-2-propanol	*220*	*J*	*ug/L*		*4.84*	*75-65-0*		*08/26/16 02:51*	*40*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 02:51*	*40*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*08/26/16 02:51*	*40*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*08/26/16 02:51*	*40*
Toluene-d8 (Surr)	*112*		*80 - 128*		*08/26/16 02:51*	*40*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**8100**		200	50	ug/L			08/26/16 03:20	200

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 03:20*	*200*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		80 - 120		08/26/16 03:20	200
Dibromofluoromethane (Surr)	117		76 - 132		08/26/16 03:20	200
Toluene-d8 (Surr)	112		80 - 128		08/26/16 03:20	200

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	800		48	9.7	ug/L		08/21/16 10:26	08/23/16 23:34	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	73		36 - 90	08/21/16 10:26	08/23/16 23:34	100

Client Sample ID: OC_GW_OW11N_20160819

Lab Sample ID: 440-156143-6

Date Collected: 08/19/16 13:15
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/25/16 22:53	1
Benzene	ND		0.50	0.25	ug/L			08/25/16 22:53	1
Bromobenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Bromoform	ND		1.0	0.40	ug/L			08/25/16 22:53	1
Bromomethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/25/16 22:53	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Chloroethane	ND		1.0	0.40	ug/L			08/25/16 22:53	1
Chloroform	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Chloromethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 22:53	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/25/16 22:53	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Dibromomethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/25/16 22:53	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/25/16 22:53	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Isopropyl alcohol	ND		250	180	ug/L			08/25/16 22:53	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/25/16 22:53	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/25/16 22:53	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/25/16 22:53	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW11N_20160819

Lab Sample ID: 440-156143-6
Date Collected: 08/19/16 13:15
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.40	ug/L			08/25/16 22:53	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/25/16 22:53	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
o-Xylene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Styrene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Toluene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 22:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 22:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 22:53	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Trichloroethene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/25/16 22:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/25/16 22:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 22:53	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/25/16 22:53	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 22:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/25/16 22:53*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*08/25/16 22:53*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*08/25/16 22:53*	*1*

Client Sample ID: OC_GW_TB_20160819

Lab Sample ID: 440-156143-7
Date Collected: 08/19/16 07:00
Matrix: Water
Date Received: 08/19/16 17:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/25/16 23:22	1
Benzene	ND		0.50	0.25	ug/L			08/25/16 23:22	1
Bromobenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Bromoform	ND		1.0	0.40	ug/L			08/25/16 23:22	1
Bromomethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/25/16 23:22	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Chloroethane	ND		1.0	0.40	ug/L			08/25/16 23:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_TB_20160819

Lab Sample ID: 440-156143-7
Date Collected: 08/19/16 07:00
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Chloromethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 23:22	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/25/16 23:22	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Dibromomethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/25/16 23:22	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/25/16 23:22	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Isopropyl alcohol	ND		250	180	ug/L			08/25/16 23:22	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Methylene Chloride	ND		5.0	0.88	ug/L			08/25/16 23:22	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/25/16 23:22	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/25/16 23:22	1
Naphthalene	ND		1.0	0.40	ug/L			08/25/16 23:22	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/25/16 23:22	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
o-Xylene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Styrene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Tetrachloroethene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Toluene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 23:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 23:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 23:22	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Trichloroethene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/25/16 23:22	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_TB_20160819

Lab Sample ID: 440-156143-7
Date Collected: 08/19/16 07:00
Matrix: Water
Date Received: 08/19/16 17:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/25/16 23:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 23:22	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/25/16 23:22	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 23:22*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*08/25/16 23:22*	*1*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*08/25/16 23:22*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*08/25/16 23:22*	*1*

Method Summary

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW10_20160819 — Lab Sample ID: 440-156143-1

Date Collected: 08/19/16 08:36 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351905	08/25/16 21:23	WC	TAL IRV
Total/NA	Prep	3520C			1040 mL	1 mL	350818	08/21/16 10:26	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			351273	08/23/16 16:10	AI	TAL IRV

Client Sample ID: OC_GW_PZ9_20160819 — Lab Sample ID: 440-156143-2

Date Collected: 08/19/16 10:00 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	351905	08/25/16 23:52	WC	TAL IRV
Total/NA	Analysis	8260B	DL	50	10 mL	10 mL	351905	08/26/16 00:22	WC	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	350818	08/21/16 10:26	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		50			351273	08/23/16 23:13	AI	TAL IRV

Client Sample ID: OC_GW_OW11_20160819 — Lab Sample ID: 440-156143-3

Date Collected: 08/19/16 11:55 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351905	08/26/16 00:52	WC	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	351905	08/26/16 01:22	WC	TAL IRV
Total/NA	Prep	3520C			1050 mL	1 mL	350818	08/21/16 10:26	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			351273	08/23/16 16:55	AI	TAL IRV

Client Sample ID: OC_GW_OW11K_20160819 — Lab Sample ID: 440-156143-4

Date Collected: 08/19/16 11:55 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351905	08/26/16 01:52	WC	TAL IRV
Total/NA	Analysis	8260B	DL	5	10 mL	10 mL	351905	08/26/16 02:21	WC	TAL IRV
Total/NA	Prep	3520C			1050 mL	1 mL	350818	08/21/16 10:26	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			351273	08/23/16 17:17	AI	TAL IRV

Client Sample ID: OC_GW_OW9_20160819 — Lab Sample ID: 440-156143-5

Date Collected: 08/19/16 13:00 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		40	10 mL	10 mL	351905	08/26/16 02:51	WC	TAL IRV
Total/NA	Analysis	8260B	DL	200	10 mL	10 mL	351905	08/26/16 03:20	WC	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	350818	08/21/16 10:26	BMN	TAL IRV

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Client Sample ID: OC_GW_OW9_20160819 — Lab Sample ID: 440-156143-5

Date Collected: 08/19/16 13:00 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270C SIM		100			351273	08/23/16 23:34	AI	TAL IRV

Client Sample ID: OC_GW_OW11N_20160819 — Lab Sample ID: 440-156143-6

Date Collected: 08/19/16 13:15 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351905	08/25/16 22:53	WC	TAL IRV

Client Sample ID: OC_GW_TB_20160819 — Lab Sample ID: 440-156143-7

Date Collected: 08/19/16 07:00 — **Matrix: Water**
Date Received: 08/19/16 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	351905	08/25/16 23:22	WC	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-351905/4
Matrix: Water
Analysis Batch: 351905

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			08/25/16 19:55	1
Benzene	ND		0.50	0.25	ug/L			08/25/16 19:55	1
Bromobenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Bromochloromethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Bromodichloromethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Bromoform	ND		1.0	0.40	ug/L			08/25/16 19:55	1
Bromomethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			08/25/16 19:55	1
Chlorobenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Chloroethane	ND		1.0	0.40	ug/L			08/25/16 19:55	1
Chloroform	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Chloromethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 19:55	1
Dibromochloromethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			08/25/16 19:55	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Dibromomethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			08/25/16 19:55	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			08/25/16 19:55	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Ethylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Isopropyl alcohol	ND		250	180	ug/L			08/25/16 19:55	1
Isopropylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Methylene Chloride	1.09	J	5.0	0.88	ug/L			08/25/16 19:55	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			08/25/16 19:55	1
m,p-Xylene	ND		1.0	0.50	ug/L			08/25/16 19:55	1
Naphthalene	ND		1.0	0.40	ug/L			08/25/16 19:55	1
n-Butylbenzene	ND		1.0	0.40	ug/L			08/25/16 19:55	1
N-Propylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
o-Xylene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Styrene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1

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

Lab Sample ID: MB 440-351905/4
Matrix: Water
Analysis Batch: 351905

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Toluene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			08/25/16 19:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 19:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			08/25/16 19:55	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Trichloroethene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			08/25/16 19:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			08/25/16 19:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			08/25/16 19:55	1
Vinyl chloride	ND		0.50	0.25	ug/L			08/25/16 19:55	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 19:55*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*08/25/16 19:55*	*1*
Dibromofluoromethane (Surr)	*110*		*76 - 132*		*08/25/16 19:55*	*1*
Toluene-d8 (Surr)	*112*		*80 - 128*		*08/25/16 19:55*	*1*

Lab Sample ID: LCS 440-351905/5
Matrix: Water
Analysis Batch: 351905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	20.0	27.6		ug/L		138	10 - 150
Benzene	25.0	23.8		ug/L		95	68 - 130
Bromobenzene	25.0	28.0		ug/L		112	70 - 130
Bromochloromethane	25.0	26.5		ug/L		106	70 - 130
Bromodichloromethane	25.0	28.0		ug/L		112	70 - 132
Bromoform	25.0	27.8		ug/L		111	60 - 148
Bromomethane	25.0	19.9		ug/L		80	64 - 139
Carbon tetrachloride	25.0	31.0		ug/L		124	60 - 150
Chlorobenzene	25.0	25.5		ug/L		102	70 - 130
Chloroethane	25.0	18.0		ug/L		72	64 - 135
Chloroform	25.0	27.3		ug/L		109	70 - 130
Chloromethane	25.0	17.2		ug/L		69	47 - 140
2-Chlorotoluene	25.0	24.4		ug/L		98	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 133
cis-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 133
Dibromochloromethane	25.0	28.3		ug/L		113	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		96	52 - 140

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

Lab Sample ID: LCS 440-351905/5
Matrix: Water
Analysis Batch: 351905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	25.0	27.9		ug/L		112	70 - 130
Dibromomethane	25.0	23.8		ug/L		95	70 - 130
1,2-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,3-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	25.0	26.8		ug/L		107	70 - 130
Dichlorodifluoromethane	25.0	20.2		ug/L		81	29 - 150
1,1-Dichloroethane	25.0	25.7		ug/L		103	64 - 130
1,2-Dichloroethane	25.0	29.6		ug/L		119	57 - 138
1,1-Dichloroethene	25.0	25.8		ug/L		103	70 - 130
1,2-Dichloropropane	25.0	24.5		ug/L		98	67 - 130
1,3-Dichloropropane	25.0	22.1		ug/L		89	70 - 130
2,2-Dichloropropane	25.0	28.4		ug/L		114	68 - 141
1,1-Dichloropropene	25.0	25.6		ug/L		102	70 - 130
Ethylbenzene	25.0	25.1		ug/L		100	70 - 130
Hexachlorobutadiene	25.0	26.7		ug/L		107	10 - 150
Isopropylbenzene	25.0	27.2		ug/L		109	70 - 136
Methylene Chloride	25.0	21.2		ug/L		85	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.4		ug/L		102	63 - 131
m,p-Xylene	25.0	27.6		ug/L		110	70 - 130
Naphthalene	25.0	28.0		ug/L		112	60 - 140
n-Butylbenzene	25.0	24.7		ug/L		99	65 - 150
N-Propylbenzene	25.0	24.3		ug/L		97	67 - 139
o-Xylene	25.0	27.1		ug/L		108	70 - 130
p-Isopropyltoluene	25.0	27.5		ug/L		110	70 - 132
sec-Butylbenzene	25.0	25.9		ug/L		104	70 - 138
Styrene	25.0	26.5		ug/L		106	70 - 134
tert-Butylbenzene	25.0	26.9		ug/L		108	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.6		ug/L		114	60 - 141
1,1,2,2-Tetrachloroethane	25.0	22.1		ug/L		88	63 - 130
Tetrachloroethene	25.0	27.9		ug/L		112	70 - 130
Toluene	25.0	25.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	25.0	26.9		ug/L		107	70 - 130
trans-1,3-Dichloropropene	25.0	26.9		ug/L		108	70 - 132
1,2,3-Trichlorobenzene	25.0	27.2		ug/L		109	60 - 140
1,2,4-Trichlorobenzene	25.0	28.3		ug/L		113	60 - 140
1,1,1-Trichloroethane	25.0	31.1		ug/L		124	70 - 130
1,1,2-Trichloroethane	25.0	22.4		ug/L		90	70 - 130
Trichloroethene	25.0	25.9		ug/L		104	70 - 130
Trichlorofluoromethane	25.0	26.4		ug/L		106	60 - 150
1,2,3-Trichloropropane	25.0	25.0		ug/L		100	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.8		ug/L		99	60 - 140
1,2,4-Trimethylbenzene	25.0	26.8		ug/L		107	70 - 135
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	70 - 136
Vinyl chloride	25.0	19.8		ug/L		79	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*

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

Lab Sample ID: LCS 440-351905/5
Matrix: Water
Analysis Batch: 351905

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*111*		*76 - 132*
Toluene-d8 (Surr)	*112*		*80 - 128*

Lab Sample ID: LCS 440-351905/6
Matrix: Water
Analysis Batch: 351905

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	189	J	ug/L		76	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*76 - 132*
Toluene-d8 (Surr)	*115*		*80 - 128*

Lab Sample ID: 440-156143-1 MS
Matrix: Water
Analysis Batch: 351905

Client Sample ID: OC_GW_OW10_20160819
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		20.0	28.4		ug/L		142	10 - 150
Benzene	ND		25.0	23.6		ug/L		95	66 - 130
Bromobenzene	ND		25.0	26.6		ug/L		106	70 - 130
Bromochloromethane	ND		25.0	27.4		ug/L		109	70 - 130
Bromodichloromethane	ND		25.0	28.5		ug/L		114	70 - 138
Bromoform	ND		25.0	28.9		ug/L		116	59 - 150
Bromomethane	ND		25.0	19.8		ug/L		79	62 - 131
Carbon tetrachloride	ND		25.0	28.9		ug/L		115	60 - 150
Chlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
Chloroethane	ND		25.0	17.8		ug/L		71	68 - 130
Chloroform	ND		25.0	27.4		ug/L		109	70 - 130
Chloromethane	ND		25.0	17.5		ug/L		70	39 - 144
2-Chlorotoluene	ND		25.0	23.1		ug/L		92	70 - 130
4-Chlorotoluene	ND		25.0	24.2		ug/L		97	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.2		ug/L		101	70 - 130
cis-1,3-Dichloropropene	ND		25.0	25.9		ug/L		103	70 - 133
Dibromochloromethane	ND		25.0	28.1		ug/L		112	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.1		ug/L		89	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.7		ug/L		111	70 - 131
Dibromomethane	ND		25.0	25.8		ug/L		103	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.7		ug/L		103	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130
Dichlorodifluoromethane	ND		25.0	17.8		ug/L		71	25 - 142
1,1-Dichloroethane	ND		25.0	24.7		ug/L		99	65 - 130
1,2-Dichloroethane	ND		25.0	31.0		ug/L		124	56 - 146
1,1-Dichloroethene	10		25.0	36.5		ug/L		105	70 - 130
1,2-Dichloropropane	ND		25.0	25.1		ug/L		101	69 - 130

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

Lab Sample ID: 440-156143-1 MS
Matrix: Water
Analysis Batch: 351905

Client Sample ID: OC_GW_OW10_20160819
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	ND		25.0	21.8		ug/L		87	70 - 130
2,2-Dichloropropane	ND		25.0	27.1		ug/L		108	69 - 138
1,1-Dichloropropene	ND		25.0	24.3		ug/L		97	64 - 130
Ethylbenzene	ND		25.0	23.9		ug/L		96	70 - 130
Hexachlorobutadiene	ND		25.0	23.6		ug/L		94	10 - 150
Isopropyl alcohol	ND		250	201	J	ug/L		80	46 - 142
Isopropylbenzene	ND		25.0	25.8		ug/L		103	70 - 132
Methylene Chloride	ND		25.0	20.7		ug/L		83	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.6		ug/L		107	70 - 130
m,p-Xylene	ND		25.0	25.9		ug/L		104	70 - 133
Naphthalene	ND		25.0	26.8		ug/L		107	60 - 140
n-Butylbenzene	ND		25.0	22.8		ug/L		91	61 - 149
N-Propylbenzene	ND		25.0	21.8		ug/L		87	66 - 135
o-Xylene	ND		25.0	26.3		ug/L		105	70 - 133
p-Isopropyltoluene	ND		25.0	24.8		ug/L		99	70 - 130
sec-Butylbenzene	ND		25.0	22.8		ug/L		91	67 - 134
Styrene	ND		25.0	25.8		ug/L		103	29 - 150
tert-Butylbenzene	ND		25.0	24.2		ug/L		97	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	28.9		ug/L		116	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	22.3		ug/L		89	63 - 130
Tetrachloroethene	19		25.0	42.5		ug/L		95	70 - 137
Toluene	ND		25.0	23.8		ug/L		95	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130
trans-1,3-Dichloropropene	ND		25.0	26.9		ug/L		107	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	27.3		ug/L		109	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	27.8		ug/L		111	60 - 140
1,1,1-Trichloroethane	ND		25.0	29.4		ug/L		117	70 - 130
1,1,2-Trichloroethane	ND		25.0	22.0		ug/L		88	70 - 130
Trichloroethene	1.2		25.0	27.0		ug/L		103	70 - 130
Trichlorofluoromethane	2.6		25.0	27.0		ug/L		97	60 - 150
1,2,3-Trichloropropane	ND		25.0	23.5		ug/L		94	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	3.9	J	25.0	26.9		ug/L		92	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	24.5		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130
Vinyl chloride	ND		25.0	18.1		ug/L		72	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*112*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-156143-1 MSD
Matrix: Water
Analysis Batch: 351905

Client Sample ID: OC_GW_OW10_20160819
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		20.0	23.9		ug/L		120	10 - 150	17	35

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

Lab Sample ID: 440-156143-1 MSD
Matrix: Water
Analysis Batch: 351905

Client Sample ID: OC_GW_OW10_20160819
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	24.3		ug/L		97	66 - 130	3	20
Bromobenzene	ND		25.0	27.0		ug/L		108	70 - 130	2	20
Bromochloromethane	ND		25.0	27.1		ug/L		108	70 - 130	1	25
Bromodichloromethane	ND		25.0	28.5		ug/L		114	70 - 138	0	20
Bromoform	ND		25.0	27.1		ug/L		108	59 - 150	7	25
Bromomethane	ND		25.0	19.8		ug/L		79	62 - 131	0	25
Carbon tetrachloride	ND		25.0	28.8		ug/L		115	60 - 150	0	25
Chlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	3	20
Chloroethane	ND		25.0	18.3		ug/L		73	68 - 130	3	25
Chloroform	ND		25.0	28.2		ug/L		113	70 - 130	3	20
Chloromethane	ND		25.0	17.8		ug/L		71	39 - 144	2	25
2-Chlorotoluene	ND		25.0	23.3		ug/L		93	70 - 130	1	20
4-Chlorotoluene	ND		25.0	25.0		ug/L		100	70 - 130	3	20
cis-1,2-Dichloroethene	ND		25.0	24.9		ug/L		99	70 - 130	1	20
cis-1,3-Dichloropropene	ND		25.0	26.9		ug/L		108	70 - 133	4	20
Dibromochloromethane	ND		25.0	28.3		ug/L		113	70 - 148	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	20.4		ug/L		82	48 - 140	8	30
1,2-Dibromoethane (EDB)	ND		25.0	26.8		ug/L		107	70 - 131	3	25
Dibromomethane	ND		25.0	24.0		ug/L		96	70 - 130	7	25
1,2-Dichlorobenzene	ND		25.0	26.6		ug/L		106	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130	2	20
1,4-Dichlorobenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
Dichlorodifluoromethane	ND		25.0	18.6		ug/L		74	25 - 142	4	30
1,1-Dichloroethane	ND		25.0	25.1		ug/L		101	65 - 130	2	20
1,2-Dichloroethane	ND		25.0	29.7		ug/L		119	56 - 146	4	20
1,1-Dichloroethene	10		25.0	33.7		ug/L		94	70 - 130	8	20
1,2-Dichloropropane	ND		25.0	25.8		ug/L		103	69 - 130	3	20
1,3-Dichloropropane	ND		25.0	20.3		ug/L		81	70 - 130	7	25
2,2-Dichloropropane	ND		25.0	28.1		ug/L		113	69 - 138	4	25
1,1-Dichloropropene	ND		25.0	24.4		ug/L		98	64 - 130	0	20
Ethylbenzene	ND		25.0	24.4		ug/L		97	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	24.5		ug/L		98	10 - 150	4	20
Isopropyl alcohol	ND		250	198	J	ug/L		79	46 - 142	1	40
Isopropylbenzene	ND		25.0	26.1		ug/L		104	70 - 132	1	20
Methylene Chloride	ND		25.0	21.5		ug/L		86	52 - 130	3	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.7		ug/L		103	70 - 130	3	25
m,p-Xylene	ND		25.0	26.4		ug/L		106	70 - 133	2	25
Naphthalene	ND		25.0	25.7		ug/L		103	60 - 140	4	30
n-Butylbenzene	ND		25.0	23.2		ug/L		93	61 - 149	2	20
N-Propylbenzene	ND		25.0	22.9		ug/L		92	66 - 135	5	20
o-Xylene	ND		25.0	26.6		ug/L		106	70 - 133	1	20
p-Isopropyltoluene	ND		25.0	25.4		ug/L		102	70 - 130	2	20
sec-Butylbenzene	ND		25.0	23.8		ug/L		95	67 - 134	4	20
Styrene	ND		25.0	26.2		ug/L		105	29 - 150	1	35
tert-Butylbenzene	ND		25.0	24.5		ug/L		98	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	28.9		ug/L		116	60 - 149	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.1		ug/L		84	63 - 130	5	30
Tetrachloroethene	19		25.0	42.1		ug/L		93	70 - 137	1	20

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

Lab Sample ID: 440-156143-1 MSD — **Client Sample ID: OC_GW_OW10_20160819**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351905

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	ND		25.0	24.0		ug/L		96	70 - 130	1	20
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	27.1		ug/L		108	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.7		ug/L		111	60 - 140	1	20
1,2,4-Trichlorobenzene	ND		25.0	28.4		ug/L		114	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	29.2		ug/L		117	70 - 130	1	20
1,1,2-Trichloroethane	ND		25.0	22.5		ug/L		90	70 - 130	2	25
Trichloroethene	1.2		25.0	26.1		ug/L		100	70 - 130	3	20
Trichlorofluoromethane	2.6		25.0	26.5		ug/L		96	60 - 150	2	25
1,2,3-Trichloropropane	ND		25.0	23.1		ug/L		93	60 - 130	1	30
1,1,2-Trichloro-1,2,2-trifluoroethane	3.9	J	25.0	26.0		ug/L		89	60 - 140	3	20
1,2,4-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	2	20
Vinyl chloride	ND		25.0	18.9		ug/L		75	50 - 137	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*112*		*76 - 132*
Toluene-d8 (Surr)	*108*		*80 - 128*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-350818/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351273 — **Prep Batch: 350818**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		08/21/16 10:26	08/23/16 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*49*		*36 - 90*	*08/21/16 10:26*	*08/23/16 12:49*	*1*

Lab Sample ID: LCS 440-350818/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 351273 — **Prep Batch: 350818**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.12		ug/L		56	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*52*		*36 - 90*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 440-350818/3-A
Matrix: Water
Analysis Batch: 351273

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 350818

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	1.16		ug/L		58	36 - 120	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*54*		*36 - 90*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

GC/MS VOA

Analysis Batch: 351905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156143-1	OC_GW_OW10_20160819	Total/NA	Water	8260B	
440-156143-2	OC_GW_PZ9_20160819	Total/NA	Water	8260B	
440-156143-2 - DL	OC_GW_PZ9_20160819	Total/NA	Water	8260B	
440-156143-3	OC_GW_OW11_20160819	Total/NA	Water	8260B	
440-156143-3 - DL	OC_GW_OW11_20160819	Total/NA	Water	8260B	
440-156143-4	OC_GW_OW11K_20160819	Total/NA	Water	8260B	
440-156143-4 - DL	OC_GW_OW11K_20160819	Total/NA	Water	8260B	
440-156143-5	OC_GW_OW9_20160819	Total/NA	Water	8260B	
440-156143-5 - DL	OC_GW_OW9_20160819	Total/NA	Water	8260B	
440-156143-6	OC_GW_OW11N_20160819	Total/NA	Water	8260B	
440-156143-7	OC_GW_TB_20160819	Total/NA	Water	8260B	
MB 440-351905/4	Method Blank	Total/NA	Water	8260B	
LCS 440-351905/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-351905/6	Lab Control Sample	Total/NA	Water	8260B	
440-156143-1 MS	OC_GW_OW10_20160819	Total/NA	Water	8260B	
440-156143-1 MSD	OC_GW_OW10_20160819	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 350818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156143-1	OC_GW_OW10_20160819	Total/NA	Water	3520C	
440-156143-2	OC_GW_PZ9_20160819	Total/NA	Water	3520C	
440-156143-3	OC_GW_OW11_20160819	Total/NA	Water	3520C	
440-156143-4	OC_GW_OW11K_20160819	Total/NA	Water	3520C	
440-156143-5	OC_GW_OW9_20160819	Total/NA	Water	3520C	
MB 440-350818/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-350818/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-350818/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 351273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-156143-1	OC_GW_OW10_20160819	Total/NA	Water	8270C SIM	350818
440-156143-2	OC_GW_PZ9_20160819	Total/NA	Water	8270C SIM	350818
440-156143-3	OC_GW_OW11_20160819	Total/NA	Water	8270C SIM	350818
440-156143-4	OC_GW_OW11K_20160819	Total/NA	Water	8270C SIM	350818
440-156143-5	OC_GW_OW9_20160819	Total/NA	Water	8270C SIM	350818
MB 440-350818/1-A	Method Blank	Total/NA	Water	8270C SIM	350818
LCS 440-350818/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	350818
LCSD 440-350818/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	350818

Definitions/Glossary

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Qualifiers

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.

GC/MS VOA TICs

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.

GC/MS Semi 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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: de maximis, inc.
Project/Site: Omega Chem. - 2016 Semi-Ann. GWM August

TestAmerica Job ID: 440-156143-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/19/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier: Efren	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Semi-Ann. GWM August	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_OW20_201608 19	8/19/16	0836	Grab	GW	5			x	x	
OC_GW_PZ9_201608 19	"	1000	Grab	GW	5			x	x	
OC_GW_OW11_201608 19	"	1155	Grab	GW	5			x	x	
OC_GW_OW11K_201608 19	"	1155	Grab	GW	5			x	x	
OC_GW_OW9_201608 19	"	1300	Grab	GW	5			x	x	
OC_GW_OW11N_201608 19	"	1315	Grab	GW	5			x	x	
OC_GW_201608			Grab	GW	5			x	x	
OC_GW_201608			Grab	GW	5			x	x	
OC_GW_201608			Grab	GW	5			x	x	
OC_GW_201608			Grab	GW	5			x	x	
OC_GW_TB_201608 19	8/19/16	0700		H2O	3			x		

440-156143 Chain of Custody

US 8/19/16 18:20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.9 Corr'd: 4.2 | Therm ID No.: 17

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JBA	8/19/16 1556	[signature]	TAI	8/19/16 13:50
[signature]	TAI	8/19/16 17:00			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			[signature]	TAI	8/19/16 1700

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-156143-1

Login Number: 156143
List Number: 1
Creator: Avila, Stephanie 1

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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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: 440-158610-1
Client Project/Site: Omega Chemical -2016 Additional GWM
Revision: 1

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

Attn: Jaime Dinello

Authorized for release by:
9/27/2016 2:00:33 PM

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

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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 Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-158610-1	OC_GW_PZ-7_20160914	Water	09/14/16 11:12	09/15/16 16:30
440-158610-2	OC_GW_PZ-8_20160914	Water	09/14/16 12:17	09/15/16 16:30
440-158610-3	OC_GW_PZ-4_20160914	Water	09/14/16 13:49	09/15/16 16:30
440-158610-4	OC_GW_PZ-4N_20160914	Water	09/14/16 14:24	09/15/16 16:30
440-158610-5	OC_GW_PZ-5_20160915	Water	09/15/16 10:55	09/15/16 16:30
440-158610-6	OC_GW_PZ-5K_20160915	Water	09/15/16 10:55	09/15/16 16:30
440-158610-7	OC_GW_PZ-6_20160915	Water	09/15/16 12:42	09/15/16 16:30
440-158610-8	OC_GW_PZ-6N_20160915	Water	09/15/16 13:06	09/15/16 16:30
440-158610-9	OC_GW_PZ-1_20160915	Water	09/15/16 13:30	09/15/16 16:30
440-158610-10	OC_GW_TB_20160914	Water	09/14/16 10:00	09/15/16 16:30

Job ID: 440-158610-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-158610-1

Comments
No additional comments.

Receipt
The samples were received on 9/15/2016 4:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

Receipt Exceptions

The following sample was listed on the Chain of Custody (COC); however, no sample was received: OC_GW_TB_20160915 (440-158610-10).

For this sample one of the TB was not recieved it only had 2 TB, on the COC it shows that their are 3.

GC/MS VOA
Method(s) 8260B: The %RPD of laboratory control standard duplicate (LCSD) for preparation batch <PrepBatch> recovered outside control limits for the following analyte: Chloroethane.

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: pH=7
OC_GW_PZ-1_20160915 (440-158610-9).
The sample was analyzed within 7 days per EPA recommendation.

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

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

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

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

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-7_20160914

Lab Sample ID: 440-158610-1

Date Collected: 09/14/16 11:12
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 20:14	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 20:14	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 20:14	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 20:14	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/20/16 20:14	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 20:14	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 20:14	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 20:14	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 20:14	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 20:14	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 20:14	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 20:14	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 20:14	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 20:14	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 20:14	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Tetrachloroethene	**9.3**		1.0	0.25	ug/L			09/20/16 20:14	1

Client Sample ID: OC_GW_PZ-7_20160914

Lab Sample ID: 440-158610-1
Date Collected: 09/14/16 11:12
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 20:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 20:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 20:14	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Trichloroethene	**0.41**	**J**	1.0	0.25	ug/L			09/20/16 20:14	1
Trichlorofluoromethane	**4.2**		1.0	0.25	ug/L			09/20/16 20:14	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 20:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**9.8**		5.0	0.50	ug/L			09/20/16 20:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 20:14	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 20:14	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/20/16 20:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*80 - 120*		*09/20/16 20:14*	*1*
Dibromofluoromethane (Surr)	*107*		*76 - 132*		*09/20/16 20:14*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*09/20/16 20:14*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.53	0.11	ug/L		09/19/16 09:38	09/21/16 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*71*		*36 - 90*	*09/19/16 09:38*	*09/21/16 17:55*	*1*

Client Sample ID: OC_GW_PZ-8_20160914

Lab Sample ID: 440-158610-2
Date Collected: 09/14/16 12:17
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 22:10	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 22:10	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 22:10	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 22:10	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/20/16 22:10	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 22:10	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-8_20160914

Lab Sample ID: 440-158610-2

Date Collected: 09/14/16 12:17
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 22:10	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 22:10	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 22:10	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 22:10	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 22:10	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 22:10	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 22:10	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 22:10	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 22:10	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 22:10	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Tetrachloroethene	**8.9**		1.0	0.25	ug/L			09/20/16 22:10	1
Toluene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 22:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 22:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 22:10	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Trichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Trichlorofluoromethane	**2.0**		1.0	0.25	ug/L			09/20/16 22:10	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 22:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**2.6**	**J**	5.0	0.50	ug/L			09/20/16 22:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:10	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 22:10	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/20/16 22:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120		09/20/16 22:10	1
Dibromofluoromethane (Surr)	105		76 - 132		09/20/16 22:10	1
Toluene-d8 (Surr)	109		80 - 128		09/20/16 22:10	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.53	0.11	ug/L		09/19/16 09:38	09/21/16 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	68		36 - 90	09/19/16 09:38	09/21/16 18:18	1

Client Sample ID: OC_GW_PZ-4_20160914 Lab Sample ID: 440-158610-3

Date Collected: 09/14/16 13:49 **Matrix: Water**
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 22:39	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 22:39	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 22:39	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 22:39	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/20/16 22:39	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 22:39	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 22:39	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 22:39	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,1-Dichloroethene	**48**		1.0	0.25	ug/L			09/20/16 22:39	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 22:39	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 22:39	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-4_20160914

Lab Sample ID: 440-158610-3
Date Collected: 09/14/16 13:49
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 22:39	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 22:39	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 22:39	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 22:39	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 22:39	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Tetrachloroethene	**40**		1.0	0.25	ug/L			09/20/16 22:39	1
Toluene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 22:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 22:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 22:39	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Trichloroethene	**4.8**		1.0	0.25	ug/L			09/20/16 22:39	1
Trichlorofluoromethane	**13**		1.0	0.25	ug/L			09/20/16 22:39	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 22:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**26**		5.0	0.50	ug/L			09/20/16 22:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 22:39	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 22:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/20/16 22:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*09/20/16 22:39*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*09/20/16 22:39*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*09/20/16 22:39*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.53	0.11	ug/L		09/19/16 09:38	09/21/16 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*64*		*36 - 90*	*09/19/16 09:38*	*09/21/16 18:40*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-4N_20160914

Lab Sample ID: 440-158610-4

Date Collected: 09/14/16 14:24
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 23:08	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 23:08	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 23:08	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 23:08	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/20/16 23:08	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 23:08	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 23:08	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 23:08	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 23:08	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 23:08	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 23:08	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 23:08	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 23:08	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 23:08	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 23:08	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/20/16 23:08	1

Client Sample ID: OC_GW_PZ-4N_20160914

Lab Sample ID: 440-158610-4
Date Collected: 09/14/16 14:24
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 23:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 23:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 23:08	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Trichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 23:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/20/16 23:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:08	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 23:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/20/16 23:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/20/16 23:08*	*1*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*09/20/16 23:08*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*09/20/16 23:08*	*1*

Client Sample ID: OC_GW_PZ-5_20160915

Lab Sample ID: 440-158610-5
Date Collected: 09/15/16 10:55
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 23:37	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 23:37	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 23:37	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 23:37	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/20/16 23:37	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 23:37	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 23:37	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-5_20160915

Lab Sample ID: 440-158610-5
Date Collected: 09/15/16 10:55
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 23:37	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 23:37	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 23:37	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 23:37	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 23:37	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 23:37	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 23:37	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 23:37	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Tetrachloroethene	**9.9**		1.0	0.25	ug/L			09/20/16 23:37	1
Toluene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 23:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 23:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 23:37	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Trichloroethene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Trichlorofluoromethane	**0.96**	**J**	1.0	0.25	ug/L			09/20/16 23:37	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 23:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**1.7**	**J**	5.0	0.50	ug/L			09/20/16 23:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 23:37	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 23:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/20/16 23:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*09/20/16 23:37*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*09/20/16 23:37*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-5_20160915

Lab Sample ID: 440-158610-5
Matrix: Water

Date Collected: 09/15/16 10:55
Date Received: 09/15/16 16:30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		80 - 128		09/20/16 23:37	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.49	0.097	ug/L		09/19/16 09:38	09/21/16 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8 (Surr)	68		36 - 90	09/19/16 09:38	09/21/16 19:03	1

Client Sample ID: OC_GW_PZ-5K_20160915

Lab Sample ID: 440-158610-6
Matrix: Water

Date Collected: 09/15/16 10:55
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/21/16 00:06	1
Benzene	ND		0.50	0.25	ug/L			09/21/16 00:06	1
Bromobenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Bromoform	ND		1.0	0.40	ug/L			09/21/16 00:06	1
Bromomethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/21/16 00:06	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/21/16 00:06	1
Chloroform	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Chloromethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 00:06	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/21/16 00:06	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Dibromomethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/21/16 00:06	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/21/16 00:06	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Isopropyl alcohol	ND		250	180	ug/L			09/21/16 00:06	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-5K_20160915

Lab Sample ID: 440-158610-6

Date Collected: 09/15/16 10:55
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	0.88	ug/L			09/21/16 00:06	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/21/16 00:06	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/21/16 00:06	1
Naphthalene	ND		1.0	0.40	ug/L			09/21/16 00:06	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/21/16 00:06	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
o-Xylene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Styrene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Tetrachloroethene	**7.0**		1.0	0.25	ug/L			09/21/16 00:06	1
Toluene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 00:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 00:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 00:06	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Trichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Trichlorofluoromethane	**0.49**	**J**	1.0	0.25	ug/L			09/21/16 00:06	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/21/16 00:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.78**	**J**	5.0	0.50	ug/L			09/21/16 00:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:06	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/21/16 00:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/21/16 00:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/21/16 00:06*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*09/21/16 00:06*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*09/21/16 00:06*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.48	0.097	ug/L		09/19/16 09:38	09/21/16 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*60*		*36 - 90*	*09/19/16 09:38*	*09/21/16 19:26*	*1*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-6_20160915

Lab Sample ID: 440-158610-7

Date Collected: 09/15/16 12:42
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/21/16 00:35	1
Benzene	ND		0.50	0.25	ug/L			09/21/16 00:35	1
Bromobenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Bromoform	ND		1.0	0.40	ug/L			09/21/16 00:35	1
Bromomethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/21/16 00:35	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/21/16 00:35	1
Chloroform	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Chloromethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 00:35	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/21/16 00:35	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Dibromomethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/21/16 00:35	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/21/16 00:35	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Isopropyl alcohol	ND		250	180	ug/L			09/21/16 00:35	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/21/16 00:35	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/21/16 00:35	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/21/16 00:35	1
Naphthalene	ND		1.0	0.40	ug/L			09/21/16 00:35	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/21/16 00:35	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
o-Xylene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Styrene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Tetrachloroethene	**15**		1.0	0.25	ug/L			09/21/16 00:35	1

Client Sample ID: OC_GW_PZ-6_20160915

Lab Sample ID: 440-158610-7
Date Collected: 09/15/16 12:42
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 00:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 00:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 00:35	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Trichloroethene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Trichlorofluoromethane	**0.37**	**J**	1.0	0.25	ug/L			09/21/16 00:35	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/21/16 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/21/16 00:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 00:35	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/21/16 00:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/21/16 00:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/21/16 00:35*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*09/21/16 00:35*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*09/21/16 00:35*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.49	0.099	ug/L		09/19/16 09:38	09/21/16 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*59*		*36 - 90*	*09/19/16 09:38*	*09/21/16 19:48*	*1*

Client Sample ID: OC_GW_PZ-6N_20160915

Lab Sample ID: 440-158610-8
Date Collected: 09/15/16 13:06
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/21/16 01:04	1
Benzene	ND		0.50	0.25	ug/L			09/21/16 01:04	1
Bromobenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Bromoform	ND		1.0	0.40	ug/L			09/21/16 01:04	1
Bromomethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/21/16 01:04	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/21/16 01:04	1
Chloroform	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Chloromethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:04	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-6N_20160915

Lab Sample ID: 440-158610-8

Date Collected: 09/15/16 13:06
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 01:04	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/21/16 01:04	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Dibromomethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/21/16 01:04	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/21/16 01:04	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Isopropyl alcohol	ND		250	180	ug/L			09/21/16 01:04	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/21/16 01:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/21/16 01:04	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/21/16 01:04	1
Naphthalene	ND		1.0	0.40	ug/L			09/21/16 01:04	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/21/16 01:04	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
o-Xylene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Styrene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Toluene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 01:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 01:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 01:04	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Trichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/21/16 01:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/21/16 01:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:04	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/21/16 01:04	1

Client Sample ID: OC_GW_PZ-6N_20160915

Lab Sample ID: 440-158610-8

Date Collected: 09/15/16 13:06
Matrix: Water
Date Received: 09/15/16 16:30

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/21/16 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		09/21/16 01:04	1
Dibromofluoromethane (Surr)	109		76 - 132		09/21/16 01:04	1
Toluene-d8 (Surr)	109		80 - 128		09/21/16 01:04	1

Client Sample ID: OC_GW_PZ-1_20160915

Lab Sample ID: 440-158610-9

Date Collected: 09/15/16 13:30
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/21/16 02:02	1
Benzene	ND		0.50	0.25	ug/L			09/21/16 02:02	1
Bromobenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Bromoform	ND		1.0	0.40	ug/L			09/21/16 02:02	1
Bromomethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/21/16 02:02	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/21/16 02:02	1
Chloroform	**13**		1.0	0.25	ug/L			09/21/16 02:02	1
Chloromethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
cis-1,2-Dichloroethene	**0.29**	**J**	1.0	0.25	ug/L			09/21/16 02:02	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 02:02	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/21/16 02:02	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Dibromomethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/21/16 02:02	1
1,1-Dichloroethane	**0.53**	**J**	1.0	0.25	ug/L			09/21/16 02:02	1
1,2-Dichloroethane	**0.96**	**J**	1.0	0.25	ug/L			09/21/16 02:02	1
1,1-Dichloroethene	**60**		1.0	0.25	ug/L			09/21/16 02:02	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/21/16 02:02	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Isopropyl alcohol	ND		250	180	ug/L			09/21/16 02:02	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/21/16 02:02	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/21/16 02:02	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-1_20160915

Lab Sample ID: 440-158610-9
Date Collected: 09/15/16 13:30
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	0.50	ug/L			09/21/16 02:02	1
Naphthalene	ND		1.0	0.40	ug/L			09/21/16 02:02	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/21/16 02:02	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
o-Xylene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Styrene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Toluene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 02:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 02:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 02:02	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Trichloroethene	**27**		1.0	0.25	ug/L			09/21/16 02:02	1
Trichlorofluoromethane	**15**		1.0	0.25	ug/L			09/21/16 02:02	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/21/16 02:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**27**		5.0	0.50	ug/L			09/21/16 02:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 02:02	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/21/16 02:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/21/16 02:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*09/21/16 02:02*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*09/21/16 02:02*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*09/21/16 02:02*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**420**		10	2.5	ug/L			09/21/16 02:31	10

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/21/16 02:31*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*09/21/16 02:31*	*10*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*09/21/16 02:31*	*10*
Toluene-d8 (Surr)	*109*		*80 - 128*		*09/21/16 02:31*	*10*

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_TB_20160914

Lab Sample ID: 440-158610-10

Date Collected: 09/14/16 10:00
Matrix: Water
Date Received: 09/15/16 16:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/21/16 01:33	1
Benzene	ND		0.50	0.25	ug/L			09/21/16 01:33	1
Bromobenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Bromoform	ND		1.0	0.40	ug/L			09/21/16 01:33	1
Bromomethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/21/16 01:33	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Chloroethane	ND	*	1.0	0.40	ug/L			09/21/16 01:33	1
Chloroform	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Chloromethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 01:33	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/21/16 01:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Dibromomethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/21/16 01:33	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/21/16 01:33	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Isopropyl alcohol	ND		250	180	ug/L			09/21/16 01:33	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Methylene Chloride	**0.88**	**J**	5.0	0.88	ug/L			09/21/16 01:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/21/16 01:33	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/21/16 01:33	1
Naphthalene	ND		1.0	0.40	ug/L			09/21/16 01:33	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/21/16 01:33	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
o-Xylene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Styrene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/21/16 01:33	1

Client Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_TB_20160914

Lab Sample ID: 440-158610-10

Date Collected: 09/14/16 10:00
Matrix: Water
Date Received: 09/15/16 16:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/21/16 01:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 01:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/21/16 01:33	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Trichloroethene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/21/16 01:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/21/16 01:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/21/16 01:33	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/21/16 01:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/21/16 01:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/21/16 01:33*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*09/21/16 01:33*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*09/21/16 01:33*	*1*

Method Summary

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-7_20160914 — Lab Sample ID: 440-158610-1

Date Collected: 09/14/16 11:12 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/20/16 20:14	WK	TAL IRV
Total/NA	Prep	3520C			945 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 17:55	AI	TAL IRV

Client Sample ID: OC_GW_PZ-8_20160914 — Lab Sample ID: 440-158610-2

Date Collected: 09/14/16 12:17 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/20/16 22:10	WK	TAL IRV
Total/NA	Prep	3520C			950 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 18:18	AI	TAL IRV

Client Sample ID: OC_GW_PZ-4_20160914 — Lab Sample ID: 440-158610-3

Date Collected: 09/14/16 13:49 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/20/16 22:39	WK	TAL IRV
Total/NA	Prep	3520C			945 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 18:40	AI	TAL IRV

Client Sample ID: OC_GW_PZ-4N_20160914 — Lab Sample ID: 440-158610-4

Date Collected: 09/14/16 14:24 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/20/16 23:08	WK	TAL IRV

Client Sample ID: OC_GW_PZ-5_20160915 — Lab Sample ID: 440-158610-5

Date Collected: 09/15/16 10:55 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/20/16 23:37	WK	TAL IRV
Total/NA	Prep	3520C			1030 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 19:03	AI	TAL IRV

Lab Chronicle

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Client Sample ID: OC_GW_PZ-5K_20160915 — Lab Sample ID: 440-158610-6

Date Collected: 09/15/16 10:55 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/21/16 00:06	WK	TAL IRV
Total/NA	Prep	3520C			1035 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 19:26	AI	TAL IRV

Client Sample ID: OC_GW_PZ-6_20160915 — Lab Sample ID: 440-158610-7

Date Collected: 09/15/16 12:42 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/21/16 00:35	WK	TAL IRV
Total/NA	Prep	3520C			1015 mL	1 mL	356494	09/19/16 09:38	BMN	TAL IRV
Total/NA	Analysis	8270C SIM		1			357131	09/21/16 19:48	AI	TAL IRV

Client Sample ID: OC_GW_PZ-6N_20160915 — Lab Sample ID: 440-158610-8

Date Collected: 09/15/16 13:06 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/21/16 01:04	WK	TAL IRV

Client Sample ID: OC_GW_PZ-1_20160915 — Lab Sample ID: 440-158610-9

Date Collected: 09/15/16 13:30 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/21/16 02:02	WK	TAL IRV
Total/NA	Analysis	8260B	DL	10	10 mL	10 mL	356908	09/21/16 02:31	WK	TAL IRV

Client Sample ID: OC_GW_TB_20160914 — Lab Sample ID: 440-158610-10

Date Collected: 09/14/16 10:00 — **Matrix: Water**
Date Received: 09/15/16 16:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	356908	09/21/16 01:33	WK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-356908/4
Matrix: Water
Analysis Batch: 356908

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/20/16 19:16	1
Benzene	ND		0.50	0.25	ug/L			09/20/16 19:16	1
Bromobenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Bromoform	ND		1.0	0.40	ug/L			09/20/16 19:16	1
Bromomethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/20/16 19:16	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Chloroethane	ND		1.0	0.40	ug/L			09/20/16 19:16	1
Chloroform	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Chloromethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 19:16	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/20/16 19:16	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Dibromomethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/20/16 19:16	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/20/16 19:16	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Isopropyl alcohol	ND		250	180	ug/L			09/20/16 19:16	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/20/16 19:16	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/20/16 19:16	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/20/16 19:16	1
Naphthalene	ND		1.0	0.40	ug/L			09/20/16 19:16	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/20/16 19:16	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
o-Xylene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Styrene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1

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

Lab Sample ID: MB 440-356908/4
Matrix: Water
Analysis Batch: 356908

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Toluene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/20/16 19:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 19:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/20/16 19:16	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Trichloroethene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/20/16 19:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/20/16 19:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/20/16 19:16	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/20/16 19:16	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
2-Methylnaphthalene	*0.791*	*J*	*ug/L*		*15.85*	*91-57-6*		*09/20/16 19:16*	*1*
1-Methylnaphthalene	*0.169*	*J*	*ug/L*		*16.05*	*90-12-0*		*09/20/16 19:16*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*09/20/16 19:16*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*09/20/16 19:16*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*09/20/16 19:16*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*09/20/16 19:16*	*1*

Lab Sample ID: LCS 440-356908/5
Matrix: Water
Analysis Batch: 356908

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.1		ug/L		88	10 - 150
Benzene	25.0	25.4		ug/L		102	68 - 130
Bromobenzene	25.0	26.4		ug/L		106	70 - 130
Bromochloromethane	25.0	26.1		ug/L		104	70 - 130
Bromodichloromethane	25.0	25.8		ug/L		103	70 - 132
Bromoform	25.0	20.7		ug/L		83	60 - 148
Bromomethane	25.0	20.7		ug/L		83	64 - 139
Carbon tetrachloride	25.0	23.9		ug/L		96	60 - 150
Chlorobenzene	25.0	23.8		ug/L		95	70 - 130
Chloroethane	25.0	16.2		ug/L		65	64 - 135
Chloroform	25.0	25.5		ug/L		102	70 - 130
Chloromethane	25.0	18.3		ug/L		73	47 - 140
2-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
4-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	70 - 133
cis-1,3-Dichloropropene	25.0	28.0		ug/L		112	70 - 133

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

Lab Sample ID: LCS 440-356908/5
Matrix: Water
Analysis Batch: 356908

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromochloromethane	25.0	24.6		ug/L		98	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	20.8		ug/L		83	52 - 140
1,2-Dibromoethane (EDB)	25.0	26.0		ug/L		104	70 - 130
Dibromomethane	25.0	25.7		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	26.1		ug/L		104	70 - 130
1,3-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	18.0		ug/L		72	29 - 150
1,1-Dichloroethane	25.0	24.8		ug/L		99	64 - 130
1,2-Dichloroethane	25.0	24.4		ug/L		97	57 - 138
1,1-Dichloroethene	25.0	25.0		ug/L		100	70 - 130
1,2-Dichloropropane	25.0	26.3		ug/L		105	67 - 130
1,3-Dichloropropane	25.0	25.7		ug/L		103	70 - 130
2,2-Dichloropropane	25.0	22.6		ug/L		90	68 - 141
1,1-Dichloropropene	25.0	24.8		ug/L		99	70 - 130
Ethylbenzene	25.0	25.5		ug/L		102	70 - 130
Hexachlorobutadiene	25.0	25.6		ug/L		102	10 - 150
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 136
Methylene Chloride	25.0	26.9		ug/L		108	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	23.1		ug/L		92	63 - 131
m,p-Xylene	25.0	27.0		ug/L		108	70 - 130
Naphthalene	25.0	26.1		ug/L		104	60 - 140
n-Butylbenzene	25.0	28.2		ug/L		113	65 - 150
N-Propylbenzene	25.0	27.4		ug/L		110	67 - 139
o-Xylene	25.0	26.5		ug/L		106	70 - 130
p-Isopropyltoluene	25.0	26.7		ug/L		107	70 - 132
sec-Butylbenzene	25.0	26.3		ug/L		105	70 - 138
Styrene	25.0	23.2		ug/L		93	70 - 134
tert-Butylbenzene	25.0	24.8		ug/L		99	70 - 130
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	60 - 141
1,1,2,2-Tetrachloroethane	25.0	23.6		ug/L		94	63 - 130
Tetrachloroethene	25.0	24.2		ug/L		97	70 - 130
Toluene	25.0	27.1		ug/L		108	70 - 130
trans-1,2-Dichloroethene	25.0	27.9		ug/L		111	70 - 130
trans-1,3-Dichloropropene	25.0	24.2		ug/L		97	70 - 132
1,2,3-Trichlorobenzene	25.0	26.3		ug/L		105	60 - 140
1,2,4-Trichlorobenzene	25.0	25.9		ug/L		104	60 - 140
1,1,1-Trichloroethane	25.0	23.1		ug/L		92	70 - 130
1,1,2-Trichloroethane	25.0	26.7		ug/L		107	70 - 130
Trichloroethene	25.0	27.0		ug/L		108	70 - 130
Trichlorofluoromethane	25.0	19.9		ug/L		79	60 - 150
1,2,3-Trichloropropane	25.0	23.2		ug/L		93	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.4		ug/L		81	60 - 140
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 135
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	70 - 136
Vinyl chloride	25.0	20.4		ug/L		82	59 - 133

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

Lab Sample ID: LCS 440-356908/5
Matrix: Water
Analysis Batch: 356908

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Lab Sample ID: LCSD 440-356908/21
Matrix: Water
Analysis Batch: 356908

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
Acetone	25.0	19.4		ug/L		78	10 - 150	13	30
Benzene	25.0	25.6		ug/L		102	68 - 130	1	20
Bromobenzene	25.0	26.2		ug/L		105	70 - 130	1	20
Bromochloromethane	25.0	25.3		ug/L		101	70 - 130	3	20
Bromodichloromethane	25.0	25.1		ug/L		100	70 - 132	3	20
Bromoform	25.0	22.9		ug/L		92	60 - 148	10	25
Bromomethane	25.0	23.7		ug/L		95	64 - 139	13	20
Carbon tetrachloride	25.0	25.6		ug/L		102	60 - 150	7	25
Chlorobenzene	25.0	25.1		ug/L		101	70 - 130	5	20
Chloroethane	25.0	23.8	*	ug/L		95	64 - 135	38	20
Chloroform	25.0	25.2		ug/L		101	70 - 130	1	20
Chloromethane	25.0	20.7		ug/L		83	47 - 140	12	25
2-Chlorotoluene	25.0	27.5		ug/L		110	70 - 130	4	20
4-Chlorotoluene	25.0	27.9		ug/L		112	70 - 130	5	20
cis-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 133	1	20
cis-1,3-Dichloropropene	25.0	29.4		ug/L		118	70 - 133	5	25
Dibromochloromethane	25.0	25.1		ug/L		100	69 - 145	2	20
1,2-Dibromo-3-Chloropropane	25.0	18.8		ug/L		75	52 - 140	10	30
1,2-Dibromoethane (EDB)	25.0	26.2		ug/L		105	70 - 130	1	20
Dibromomethane	25.0	25.0		ug/L		100	70 - 130	3	20
1,2-Dichlorobenzene	25.0	25.9		ug/L		103	70 - 130	1	20
1,3-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130	3	20
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130	3	20
Dichlorodifluoromethane	25.0	22.7		ug/L		91	29 - 150	23	30
1,1-Dichloroethane	25.0	25.0		ug/L		100	64 - 130	1	20
1,2-Dichloroethane	25.0	23.9		ug/L		96	57 - 138	2	20
1,1-Dichloroethene	25.0	26.2		ug/L		105	70 - 130	5	20
1,2-Dichloropropane	25.0	27.0		ug/L		108	67 - 130	3	20
1,3-Dichloropropane	25.0	25.4		ug/L		101	70 - 130	1	20
2,2-Dichloropropane	25.0	26.4		ug/L		106	68 - 141	16	25
1,1-Dichloropropene	25.0	26.6		ug/L		107	70 - 130	7	20
Ethylbenzene	25.0	27.7		ug/L		111	70 - 130	8	20
Hexachlorobutadiene	25.0	27.0		ug/L		108	10 - 150	5	20
Isopropylbenzene	25.0	28.4		ug/L		113	70 - 136	12	20
Methylene Chloride	25.0	25.1		ug/L		100	52 - 130	7	20
Methyl-t-Butyl Ether (MTBE)	25.0	23.3		ug/L		93	63 - 131	1	25
m,p-Xylene	25.0	29.2		ug/L		117	70 - 130	8	20
Naphthalene	25.0	25.1		ug/L		100	60 - 140	4	25
n-Butylbenzene	25.0	29.6		ug/L		118	65 - 150	5	20

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

Lab Sample ID: LCSD 440-356908/21
Matrix: Water
Analysis Batch: 356908

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
N-Propylbenzene			25.0	28.2		ug/L		113	67 - 139	3	20
o-Xylene			25.0	28.5		ug/L		114	70 - 130	7	20
p-Isopropyltoluene			25.0	28.2		ug/L		113	70 - 132	5	20
sec-Butylbenzene			25.0	27.6		ug/L		110	70 - 138	5	20
Styrene			25.0	25.8		ug/L		103	70 - 134	11	20
tert-Butylbenzene			25.0	26.3		ug/L		105	70 - 130	6	20
1,1,1,2-Tetrachloroethane			25.0	26.9		ug/L		108	60 - 141	8	20
1,1,2,2-Tetrachloroethane			25.0	23.0		ug/L		92	63 - 130	3	25
Tetrachloroethene			25.0	26.6		ug/L		106	70 - 130	9	20
Toluene			25.0	28.1		ug/L		112	70 - 130	4	20
trans-1,2-Dichloroethene			25.0	28.8		ug/L		115	70 - 130	3	20
trans-1,3-Dichloropropene			25.0	25.6		ug/L		103	70 - 132	6	20
1,2,3-Trichlorobenzene			25.0	27.5		ug/L		110	60 - 140	5	20
1,2,4-Trichlorobenzene			25.0	27.7		ug/L		111	60 - 140	7	20
1,1,1-Trichloroethane			25.0	24.7		ug/L		99	70 - 130	6	20
1,1,2-Trichloroethane			25.0	25.8		ug/L		103	70 - 130	4	20
Trichloroethene			25.0	28.7		ug/L		115	70 - 130	6	20
Trichlorofluoromethane			25.0	23.2		ug/L		93	60 - 150	15	20
1,2,3-Trichloropropane			25.0	21.0		ug/L		84	63 - 130	10	20
1,1,2-Trichloro-1,2,2-trifluoroethane			25.0	24.9		ug/L		100	60 - 140	20	20
1,2,4-Trimethylbenzene			25.0	26.0		ug/L		104	70 - 135	4	20
1,3,5-Trimethylbenzene			25.0	26.5		ug/L		106	70 - 136	5	20
Vinyl chloride			25.0	24.8		ug/L		99	59 - 133	19	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*
Toluene-d8 (Surr)	*108*		*80 - 128*

Lab Sample ID: 440-158610-1 MS
Matrix: Water
Analysis Batch: 356908

Client Sample ID: OC_GW_PZ-7_20160914
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Acetone	ND		25.0	16.8		ug/L		67	10 - 150		
Benzene	ND		25.0	25.0		ug/L		100	66 - 130		
Bromobenzene	ND		25.0	25.6		ug/L		102	70 - 130		
Bromochloromethane	ND		25.0	25.6		ug/L		102	70 - 130		
Bromodichloromethane	ND		25.0	24.8		ug/L		99	70 - 138		
Bromoform	ND		25.0	23.3		ug/L		93	59 - 150		
Bromomethane	ND		25.0	22.1		ug/L		88	62 - 131		
Carbon tetrachloride	ND		25.0	24.6		ug/L		98	60 - 150		
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130		
Chloroethane	ND	*	25.0	22.4		ug/L		89	68 - 130		
Chloroform	ND		25.0	25.1		ug/L		100	70 - 130		
Chloromethane	ND		25.0	20.1		ug/L		80	39 - 144		
2-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130		

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

Lab Sample ID: 440-158610-1 MS
Matrix: Water
Analysis Batch: 356908

Client Sample ID: OC_GW_PZ-7_20160914
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	ND		25.0	26.9		ug/L		107	70 - 130
cis-1,2-Dichloroethene	ND		25.0	26.7		ug/L		107	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.8		ug/L		111	70 - 133
Dibromochloromethane	ND		25.0	25.4		ug/L		102	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	21.1		ug/L		84	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.7		ug/L		107	70 - 131
Dibromomethane	ND		25.0	25.8		ug/L		103	70 - 130
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.0		ug/L		104	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130
Dichlorodifluoromethane	ND		25.0	20.4		ug/L		82	25 - 142
1,1-Dichloroethane	ND		25.0	24.3		ug/L		97	65 - 130
1,2-Dichloroethane	ND		25.0	24.0		ug/L		96	56 - 146
1,1-Dichloroethene	ND		25.0	24.5		ug/L		98	70 - 130
1,2-Dichloropropane	ND		25.0	26.4		ug/L		106	69 - 130
1,3-Dichloropropane	ND		25.0	25.3		ug/L		101	70 - 130
2,2-Dichloropropane	ND		25.0	24.8		ug/L		99	69 - 138
1,1-Dichloropropene	ND		25.0	25.1		ug/L		100	64 - 130
Ethylbenzene	ND		25.0	25.8		ug/L		103	70 - 130
Hexachlorobutadiene	ND		25.0	26.4		ug/L		106	10 - 150
Isopropylbenzene	ND		25.0	26.9		ug/L		107	70 - 132
Methylene Chloride	ND		25.0	24.3		ug/L		97	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.8		ug/L		95	70 - 130
m,p-Xylene	ND		25.0	27.4		ug/L		110	70 - 133
Naphthalene	ND		25.0	26.9		ug/L		107	60 - 140
n-Butylbenzene	ND		25.0	28.3		ug/L		113	61 - 149
N-Propylbenzene	ND		25.0	27.3		ug/L		109	66 - 135
o-Xylene	ND		25.0	27.0		ug/L		108	70 - 133
p-Isopropyltoluene	ND		25.0	27.1		ug/L		108	70 - 130
sec-Butylbenzene	ND		25.0	26.3		ug/L		105	67 - 134
Styrene	ND		25.0	23.7		ug/L		95	29 - 150
tert-Butylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	25.7		ug/L		103	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	24.3		ug/L		97	63 - 130
Tetrachloroethene	9.3		25.0	32.5		ug/L		93	70 - 137
Toluene	ND		25.0	26.3		ug/L		105	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.7		ug/L		111	70 - 130
trans-1,3-Dichloropropene	ND		25.0	24.3		ug/L		97	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	27.7		ug/L		111	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	27.0		ug/L		108	60 - 140
1,1,1-Trichloroethane	ND		25.0	24.0		ug/L		96	70 - 130
1,1,2-Trichloroethane	ND		25.0	26.7		ug/L		107	70 - 130
Trichloroethene	0.41	J	25.0	27.0		ug/L		106	70 - 130
Trichlorofluoromethane	4.2		25.0	25.4		ug/L		85	60 - 150
1,2,3-Trichloropropane	ND		25.0	22.4		ug/L		89	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	9.8		25.0	32.6		ug/L		91	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130

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

Lab Sample ID: 440-158610-1 MS
Matrix: Water
Analysis Batch: 356908

Client Sample ID: OC_GW_PZ-7_20160914
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130
Vinyl chloride	ND		25.0	22.7		ug/L		91	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: 440-158610-1 MSD
Matrix: Water
Analysis Batch: 356908

Client Sample ID: OC_GW_PZ-7_20160914
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	18.0		ug/L		72	10 - 150	7	35
Benzene	ND		25.0	25.2		ug/L		101	66 - 130	1	20
Bromobenzene	ND		25.0	25.6		ug/L		103	70 - 130	0	20
Bromochloromethane	ND		25.0	24.9		ug/L		100	70 - 130	3	25
Bromodichloromethane	ND		25.0	25.7		ug/L		103	70 - 138	4	20
Bromoform	ND		25.0	20.6		ug/L		82	59 - 150	12	25
Bromomethane	ND		25.0	20.7		ug/L		83	62 - 131	7	25
Carbon tetrachloride	ND		25.0	23.5		ug/L		94	60 - 150	4	25
Chlorobenzene	ND		25.0	23.1		ug/L		93	70 - 130	6	20
Chloroethane	ND	*	25.0	19.0		ug/L		76	68 - 130	16	25
Chloroform	ND		25.0	25.1		ug/L		100	70 - 130	0	20
Chloromethane	ND		25.0	20.2		ug/L		81	39 - 144	0	25
2-Chlorotoluene	ND		25.0	26.2		ug/L		105	70 - 130	0	20
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130	1	20
cis-1,2-Dichloroethene	ND		25.0	26.6		ug/L		106	70 - 130	1	20
cis-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 133	2	20
Dibromochloromethane	ND		25.0	23.9		ug/L		95	70 - 148	6	25
1,2-Dibromo-3-Chloropropane	ND		25.0	19.5		ug/L		78	48 - 140	8	30
1,2-Dibromoethane (EDB)	ND		25.0	25.5		ug/L		102	70 - 131	5	25
Dibromomethane	ND		25.0	25.5		ug/L		102	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	25.9		ug/L		104	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	1	20
1,4-Dichlorobenzene	ND		25.0	24.6		ug/L		98	70 - 130	1	20
Dichlorodifluoromethane	ND		25.0	19.6		ug/L		78	25 - 142	4	30
1,1-Dichloroethane	ND		25.0	24.8		ug/L		99	65 - 130	2	20
1,2-Dichloroethane	ND		25.0	24.3		ug/L		97	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	26.4		ug/L		106	69 - 130	0	20
1,3-Dichloropropane	ND		25.0	24.2		ug/L		97	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	23.6		ug/L		94	69 - 138	5	25
1,1-Dichloropropene	ND		25.0	25.3		ug/L		101	64 - 130	1	20
Ethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	5	20
Hexachlorobutadiene	ND		25.0	25.6		ug/L		102	10 - 150	3	20
Isopropylbenzene	ND		25.0	24.8		ug/L		99	70 - 132	8	20
Methylene Chloride	ND		25.0	25.7		ug/L		103	52 - 130	6	20

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

Lab Sample ID: 440-158610-1 MSD
Matrix: Water
Analysis Batch: 356908

Client Sample ID: OC_GW_PZ-7_20160914
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.1		ug/L		92	70 - 130	3	25
m,p-Xylene	ND		25.0	26.3		ug/L		105	70 - 133	4	25
Naphthalene	ND		25.0	25.4		ug/L		102	60 - 140	5	30
n-Butylbenzene	ND		25.0	28.1		ug/L		112	61 - 149	1	20
N-Propylbenzene	ND		25.0	27.1		ug/L		108	66 - 135	1	20
o-Xylene	ND		25.0	25.5		ug/L		102	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	26.6		ug/L		106	70 - 130	2	20
sec-Butylbenzene	ND		25.0	26.8		ug/L		107	67 - 134	2	20
Styrene	ND		25.0	21.4		ug/L		86	29 - 150	10	35
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	1	20
1,1,1,2-Tetrachloroethane	ND		25.0	24.4		ug/L		98	60 - 149	5	20
1,1,2,2-Tetrachloroethane	ND		25.0	23.2		ug/L		93	63 - 130	4	30
Tetrachloroethene	9.3		25.0	32.1		ug/L		91	70 - 137	1	20
Toluene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	28.0		ug/L		112	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	23.9		ug/L		96	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	27.0		ug/L		108	60 - 140	2	20
1,2,4-Trichlorobenzene	ND		25.0	26.6		ug/L		107	60 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	23.4		ug/L		94	70 - 130	2	20
1,1,2-Trichloroethane	ND		25.0	24.6		ug/L		98	70 - 130	8	25
Trichloroethene	0.41	J	25.0	27.2		ug/L		107	70 - 130	1	20
Trichlorofluoromethane	4.2		25.0	25.0		ug/L		83	60 - 150	2	25
1,2,3-Trichloropropane	ND		25.0	21.7		ug/L		87	60 - 130	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	9.8		25.0	30.5		ug/L		83	60 - 140	7	20
1,2,4-Trimethylbenzene	ND		25.0	24.3		ug/L		97	70 - 130	4	25
1,3,5-Trimethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	3	20
Vinyl chloride	ND		25.0	22.1		ug/L		89	50 - 137	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 440-356494/1-A
Matrix: Water
Analysis Batch: 357131

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 356494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		09/19/16 09:38	09/21/16 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*62*		*36 - 90*	*09/19/16 09:38*	*09/21/16 14:32*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 440-356494/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357131 — **Prep Batch: 356494**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	1.47		ug/L		73	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*67*		*36 - 90*

Lab Sample ID: 550-69580-C-4-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357131 — **Prep Batch: 356494**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	ND		2.11	1.62		ug/L		77	12 - 100		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*66*		*36 - 90*

Lab Sample ID: 550-69580-C-4-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 357131 — **Prep Batch: 356494**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	ND		2.08	1.57		ug/L		75	12 - 100	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*65*		*36 - 90*

QC Association Summary

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

GC/MS VOA

Analysis Batch: 356908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-158610-1	OC_GW_PZ-7_20160914	Total/NA	Water	8260B	
440-158610-2	OC_GW_PZ-8_20160914	Total/NA	Water	8260B	
440-158610-3	OC_GW_PZ-4_20160914	Total/NA	Water	8260B	
440-158610-4	OC_GW_PZ-4N_20160914	Total/NA	Water	8260B	
440-158610-5	OC_GW_PZ-5_20160915	Total/NA	Water	8260B	
440-158610-6	OC_GW_PZ-5K_20160915	Total/NA	Water	8260B	
440-158610-7	OC_GW_PZ-6_20160915	Total/NA	Water	8260B	
440-158610-8	OC_GW_PZ-6N_20160915	Total/NA	Water	8260B	
440-158610-9	OC_GW_PZ-1_20160915	Total/NA	Water	8260B	
440-158610-9 - DL	OC_GW_PZ-1_20160915	Total/NA	Water	8260B	
440-158610-10	OC_GW_TB_20160914	Total/NA	Water	8260B	
MB 440-356908/4	Method Blank	Total/NA	Water	8260B	
LCS 440-356908/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 440-356908/21	Lab Control Sample Dup	Total/NA	Water	8260B	
440-158610-1 MS	OC_GW_PZ-7_20160914	Total/NA	Water	8260B	
440-158610-1 MSD	OC_GW_PZ-7_20160914	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 356494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-158610-1	OC_GW_PZ-7_20160914	Total/NA	Water	3520C	
440-158610-2	OC_GW_PZ-8_20160914	Total/NA	Water	3520C	
440-158610-3	OC_GW_PZ-4_20160914	Total/NA	Water	3520C	
440-158610-5	OC_GW_PZ-5_20160915	Total/NA	Water	3520C	
440-158610-6	OC_GW_PZ-5K_20160915	Total/NA	Water	3520C	
440-158610-7	OC_GW_PZ-6_20160915	Total/NA	Water	3520C	
MB 440-356494/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-356494/2-A	Lab Control Sample	Total/NA	Water	3520C	
550-69580-C-4-A MS	Matrix Spike	Total/NA	Water	3520C	
550-69580-C-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	3520C	

Analysis Batch: 357131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-158610-1	OC_GW_PZ-7_20160914	Total/NA	Water	8270C SIM	356494
440-158610-2	OC_GW_PZ-8_20160914	Total/NA	Water	8270C SIM	356494
440-158610-3	OC_GW_PZ-4_20160914	Total/NA	Water	8270C SIM	356494
440-158610-5	OC_GW_PZ-5_20160915	Total/NA	Water	8270C SIM	356494
440-158610-6	OC_GW_PZ-5K_20160915	Total/NA	Water	8270C SIM	356494
440-158610-7	OC_GW_PZ-6_20160915	Total/NA	Water	8270C SIM	356494
MB 440-356494/1-A	Method Blank	Total/NA	Water	8270C SIM	356494
LCS 440-356494/2-A	Lab Control Sample	Total/NA	Water	8270C SIM	356494
550-69580-C-4-A MS	Matrix Spike	Total/NA	Water	8270C SIM	356494
550-69580-C-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270C SIM	356494

Definitions/Glossary

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

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.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: de maximis, inc.
Project/Site: Omega Chemical -2016 Additional GWM

TestAmerica Job ID: 440-158610-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 9/15/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Additional GWM	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_PZ-7_20160914	9/14/16	1112	Grab	GW	5			x	x	
OC_GW_PZ-8_20160914	9/14/16	1217	Grab	GW	5			x	x	
OC_GW_PZ-4_20160914	9/14/16	1349	Grab	GW	5			x	x	
OC_GW_PZ-4N_20160914	9/14/16	1424	Grab	GW	5			x	NA	8260B only
OC_GW_PZ-5_20160915	9/15/16	1055	Grab	GW	5			x	x	
OC_GW_PZ-5K_20160915	9/15/16	1055	Grab	GW	5			x	x	
OC_GW_PZ-6_20160915	9/15/16	1242	Grab	GW	5			x	x	
OC_GW_PZ-6N_20160915	9/15/16	1306	Grab	GW	5			x	NA	8260B only
OC_GW_PZ-1_20160915	9/15/16	1330	Grab	GW	5			x	NA	8260B only
OC_GW_ _201609	9/ /16		Grab	GW	5			x	x	
OC_GW_TB_20160914	9/14/16	1000		H2O	3			x		

440-158610 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	DHA	9/15/16 1417	[signature]	TAI	9/15/16 1417
Relinquished by: [signature]	Company: TAI	Date/Time: 9/15/16 1630	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAI	Date/Time: 09/15/16 16:30

5.9°/5.2° #77

Login Sample Receipt Checklist

Client: de maximis, inc.

Job Number: 440-158610-1

Login Number: 158610
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

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: 440-157652-1
Client Project/Site: Omega Chemical - GWTS Monthly

For:
Jacob & Hefner Associates P.C.
15375 Barranca Parkway, J-101
Irvine, California 92618

Attn: Trent Henderson

Authorized for release by:
9/13/2016 1:00:41 PM

Danielle Roberts, Senior Project Manager
(949)261-1022
danielle.roberts@testamericainc.com

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: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-157652-1	OC_SP220B_EFF_090716	Water	09/07/16 11:02	09/07/16 17:50
440-157652-2	OC_SP210_INF_090716	Water	09/07/16 11:10	09/07/16 17:50
440-157652-3	OC_TB_090716	Water	09/07/16 11:00	09/07/16 17:50

Case Narrative

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Job ID: 440-157652-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-157652-1

Comments
No additional comments.

Receipt
The samples were received on 9/7/2016 5:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

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

GC/MS Semi VOA
Method(s) 8270C SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-354621 and analytical batch 440-354919. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

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

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

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Client Sample ID: OC_SP220B_EFF_090716

Lab Sample ID: 440-157652-1

Date Collected: 09/07/16 11:02
Matrix: Water
Date Received: 09/07/16 17:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**10**		10	10	ug/L			09/12/16 23:33	1
Benzene	ND		0.50	0.25	ug/L			09/12/16 23:33	1
Bromobenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Bromoform	ND		1.0	0.40	ug/L			09/12/16 23:33	1
Bromomethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/12/16 23:33	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Chloroethane	ND		1.0	0.40	ug/L			09/12/16 23:33	1
Chloroform	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Chloromethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/12/16 23:33	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/12/16 23:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Dibromomethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/12/16 23:33	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/12/16 23:33	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/12/16 23:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/12/16 23:33	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/12/16 23:33	1
Naphthalene	ND		1.0	0.40	ug/L			09/12/16 23:33	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/12/16 23:33	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
o-Xylene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Styrene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Toluene	ND		1.0	0.25	ug/L			09/12/16 23:33	1

Client Sample ID: OC_SP220B_EFF_090716

Lab Sample ID: 440-157652-1
Date Collected: 09/07/16 11:02
Matrix: Water
Date Received: 09/07/16 17:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/12/16 23:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/12/16 23:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/12/16 23:33	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Trichloroethene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/12/16 23:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/12/16 23:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/12/16 23:33	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/12/16 23:33	1
Isopropyl alcohol	ND		250	180	ug/L			09/12/16 23:33	1
Total Volatile Organic Compounds	ND		150	75	ug/L			09/12/16 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*09/12/16 23:33*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*09/12/16 23:33*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*09/12/16 23:33*	*1*

Method: 8270C SIM - 1,4 Dioxane by SIM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**30**		2.5	0.51	ug/L		09/09/16 09:53	09/12/16 14:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*50*		*36 - 90*	*09/09/16 09:53*	*09/12/16 14:05*	*5*

Client Sample ID: OC_SP210_INF_090716

Lab Sample ID: 440-157652-2
Date Collected: 09/07/16 11:10
Matrix: Water
Date Received: 09/07/16 17:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	100	ug/L			09/13/16 00:03	10
Benzene	ND		5.0	2.5	ug/L			09/13/16 00:03	10
Bromobenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Bromochloromethane	ND		10	2.5	ug/L			09/13/16 00:03	10
Bromodichloromethane	ND		10	2.5	ug/L			09/13/16 00:03	10
Bromoform	ND		10	4.0	ug/L			09/13/16 00:03	10
Bromomethane	ND		10	2.5	ug/L			09/13/16 00:03	10
Carbon tetrachloride	ND		5.0	2.5	ug/L			09/13/16 00:03	10
Chlorobenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Chloroethane	ND		10	4.0	ug/L			09/13/16 00:03	10
Chloroform	**22**		10	2.5	ug/L			09/13/16 00:03	10
Chloromethane	ND		10	2.5	ug/L			09/13/16 00:03	10
2-Chlorotoluene	ND		10	2.5	ug/L			09/13/16 00:03	10
4-Chlorotoluene	ND		10	2.5	ug/L			09/13/16 00:03	10
cis-1,2-Dichloroethene	ND		10	2.5	ug/L			09/13/16 00:03	10
cis-1,3-Dichloropropene	ND		5.0	2.5	ug/L			09/13/16 00:03	10

Client Sample ID: OC_SP210_INF_090716

Lab Sample ID: 440-157652-2

Date Collected: 09/07/16 11:10

Matrix: Water

Date Received: 09/07/16 17:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,2-Dibromo-3-Chloropropane	ND		50	5.0	ug/L			09/13/16 00:03	10
1,2-Dibromoethane (EDB)	ND		10	2.5	ug/L			09/13/16 00:03	10
Dibromomethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,2-Dichlorobenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
1,3-Dichlorobenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
1,4-Dichlorobenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Dichlorodifluoromethane	ND		10	4.0	ug/L			09/13/16 00:03	10
1,1-Dichloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,2-Dichloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,1-Dichloroethene	**31**		10	2.5	ug/L			09/13/16 00:03	10
1,2-Dichloropropane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,3-Dichloropropane	ND		10	2.5	ug/L			09/13/16 00:03	10
2,2-Dichloropropane	ND		10	4.0	ug/L			09/13/16 00:03	10
1,1-Dichloropropene	ND		10	2.5	ug/L			09/13/16 00:03	10
Ethylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Hexachlorobutadiene	ND		10	2.5	ug/L			09/13/16 00:03	10
Isopropylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Methylene Chloride	ND		50	8.8	ug/L			09/13/16 00:03	10
Methyl-t-Butyl Ether (MTBE)	ND		10	2.5	ug/L			09/13/16 00:03	10
m,p-Xylene	ND		10	5.0	ug/L			09/13/16 00:03	10
Naphthalene	ND		10	4.0	ug/L			09/13/16 00:03	10
n-Butylbenzene	ND		10	4.0	ug/L			09/13/16 00:03	10
N-Propylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
o-Xylene	ND		10	2.5	ug/L			09/13/16 00:03	10
p-Isopropyltoluene	ND		10	2.5	ug/L			09/13/16 00:03	10
sec-Butylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Styrene	ND		10	2.5	ug/L			09/13/16 00:03	10
tert-Butylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
1,1,1,2-Tetrachloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,1,2,2-Tetrachloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
Tetrachloroethene	**580**		10	2.5	ug/L			09/13/16 00:03	10
Toluene	ND		10	2.5	ug/L			09/13/16 00:03	10
trans-1,2-Dichloroethene	ND		10	2.5	ug/L			09/13/16 00:03	10
trans-1,3-Dichloropropene	ND		5.0	2.5	ug/L			09/13/16 00:03	10
1,2,3-Trichlorobenzene	ND		10	4.0	ug/L			09/13/16 00:03	10
1,2,4-Trichlorobenzene	ND		10	4.0	ug/L			09/13/16 00:03	10
1,1,1-Trichloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
1,1,2-Trichloroethane	ND		10	2.5	ug/L			09/13/16 00:03	10
Trichloroethene	**29**		10	2.5	ug/L			09/13/16 00:03	10
Trichlorofluoromethane	**15**		10	2.5	ug/L			09/13/16 00:03	10
1,2,3-Trichloropropane	ND		10	4.0	ug/L			09/13/16 00:03	10
1,1,2-Trichloro-1,2,2-trifluoroethane	**64**		50	5.0	ug/L			09/13/16 00:03	10
1,2,4-Trimethylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
1,3,5-Trimethylbenzene	ND		10	2.5	ug/L			09/13/16 00:03	10
Vinyl chloride	ND		5.0	2.5	ug/L			09/13/16 00:03	10
Isopropyl alcohol	ND		2500	1800	ug/L			09/13/16 00:03	10
Total Volatile Organic Compounds	**760**	**J**	1500	750	ug/L			09/13/16 00:03	10

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Client Sample ID: OC_SP210_INF_090716

Lab Sample ID: 440-157652-2
Date Collected: 09/07/16 11:10
Matrix: Water
Date Received: 09/07/16 17:50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*09/13/16 00:03*	*10*
Dibromofluoromethane (Surr)	*116*		*76 - 132*		*09/13/16 00:03*	*10*
Toluene-d8 (Surr)	*106*		*80 - 128*		*09/13/16 00:03*	*10*

Client Sample ID: OC_TB_090716

Lab Sample ID: 440-157652-3
Date Collected: 09/07/16 11:00
Matrix: Water
Date Received: 09/07/16 17:50

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/13/16 00:34	1
Benzene	ND		0.50	0.25	ug/L			09/13/16 00:34	1
Bromobenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Bromoform	ND		1.0	0.40	ug/L			09/13/16 00:34	1
Bromomethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/13/16 00:34	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Chloroethane	ND		1.0	0.40	ug/L			09/13/16 00:34	1
Chloroform	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Chloromethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/13/16 00:34	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/13/16 00:34	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Dibromomethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/13/16 00:34	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/13/16 00:34	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/13/16 00:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/13/16 00:34	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/13/16 00:34	1
Naphthalene	ND		1.0	0.40	ug/L			09/13/16 00:34	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/13/16 00:34	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1

Client Sample Results

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Client Sample ID: OC_TB_090716

Lab Sample ID: 440-157652-3

Date Collected: 09/07/16 11:00
Matrix: Water
Date Received: 09/07/16 17:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Styrene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Toluene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/13/16 00:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/13/16 00:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/13/16 00:34	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Trichloroethene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/13/16 00:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/13/16 00:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/13/16 00:34	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/13/16 00:34	1
Isopropyl alcohol	ND		250	180	ug/L			09/13/16 00:34	1
Total Volatile Organic Compounds	ND		150	75	ug/L			09/13/16 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*09/13/16 00:34*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*09/13/16 00:34*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*09/13/16 00:34*	*1*

Method Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C SIM	1,4 Dioxane by SIM	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Client Sample ID: OC_SP220B_EFF_090716 — Lab Sample ID: 440-157652-1

Date Collected: 09/07/16 11:02 — **Matrix: Water**
Date Received: 09/07/16 17:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	355056	09/12/16 23:33	WK	TAL IRV
Total/NA	Prep	3520C			990 mL	1 mL	354621	09/09/16 09:53	FTD	TAL IRV
Total/NA	Analysis	8270C SIM		5			354919	09/12/16 14:05	AI	TAL IRV

Client Sample ID: OC_SP210_INF_090716 — Lab Sample ID: 440-157652-2

Date Collected: 09/07/16 11:10 — **Matrix: Water**
Date Received: 09/07/16 17:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	355056	09/13/16 00:03	WK	TAL IRV

Client Sample ID: OC_TB_090716 — Lab Sample ID: 440-157652-3

Date Collected: 09/07/16 11:00 — **Matrix: Water**
Date Received: 09/07/16 17:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	355056	09/13/16 00:34	WK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-355056/4
Matrix: Water
Analysis Batch: 355056

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	10	ug/L			09/12/16 19:33	1
Benzene	ND		0.50	0.25	ug/L			09/12/16 19:33	1
Bromobenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Bromochloromethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Bromodichloromethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Bromoform	ND		1.0	0.40	ug/L			09/12/16 19:33	1
Bromomethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			09/12/16 19:33	1
Chlorobenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Chloroethane	ND		1.0	0.40	ug/L			09/12/16 19:33	1
Chloroform	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Chloromethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
2-Chlorotoluene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
4-Chlorotoluene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
cis-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/12/16 19:33	1
Dibromochloromethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/12/16 19:33	1
1,2-Dibromoethane (EDB)	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Dibromomethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,2-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,3-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,4-Dichlorobenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			09/12/16 19:33	1
1,1-Dichloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,2-Dichloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,1-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,2-Dichloropropane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,3-Dichloropropane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			09/12/16 19:33	1
1,1-Dichloropropene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Ethylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Hexachlorobutadiene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Isopropylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Methylene Chloride	ND		5.0	0.88	ug/L			09/12/16 19:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	0.25	ug/L			09/12/16 19:33	1
m,p-Xylene	ND		1.0	0.50	ug/L			09/12/16 19:33	1
Naphthalene	ND		1.0	0.40	ug/L			09/12/16 19:33	1
n-Butylbenzene	ND		1.0	0.40	ug/L			09/12/16 19:33	1
N-Propylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
o-Xylene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
p-Isopropyltoluene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
sec-Butylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Styrene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
tert-Butylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Tetrachloroethene	ND		1.0	0.25	ug/L			09/12/16 19:33	1

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

Lab Sample ID: MB 440-355056/4
Matrix: Water
Analysis Batch: 355056

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
trans-1,2-Dichloroethene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			09/12/16 19:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			09/12/16 19:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			09/12/16 19:33	1
1,1,1-Trichloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,1,2-Trichloroethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Trichloroethene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Trichlorofluoromethane	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			09/12/16 19:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	0.50	ug/L			09/12/16 19:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.25	ug/L			09/12/16 19:33	1
Vinyl chloride	ND		0.50	0.25	ug/L			09/12/16 19:33	1
Isopropyl alcohol	ND		250	180	ug/L			09/12/16 19:33	1
Total Volatile Organic Compounds	ND		150	75	ug/L			09/12/16 19:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*09/12/16 19:33*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*09/12/16 19:33*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*09/12/16 19:33*	*1*

Lab Sample ID: LCS 440-355056/5
Matrix: Water
Analysis Batch: 355056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	29.5		ug/L		118	10 - 150
Benzene	25.0	22.2		ug/L		89	68 - 130
Bromobenzene	25.0	24.5		ug/L		98	70 - 130
Bromochloromethane	25.0	23.3		ug/L		93	70 - 130
Bromodichloromethane	25.0	24.6		ug/L		98	70 - 132
Bromoform	25.0	27.5		ug/L		110	60 - 148
Bromomethane	25.0	22.7		ug/L		91	64 - 139
Carbon tetrachloride	25.0	26.5		ug/L		106	60 - 150
Chlorobenzene	25.0	21.9		ug/L		88	70 - 130
Chloroethane	25.0	21.8		ug/L		87	64 - 135
Chloroform	25.0	23.7		ug/L		95	70 - 130
Chloromethane	25.0	17.9		ug/L		71	47 - 140
2-Chlorotoluene	25.0	24.9		ug/L		100	70 - 130
4-Chlorotoluene	25.0	25.3		ug/L		101	70 - 130
cis-1,2-Dichloroethene	25.0	24.1		ug/L		97	70 - 133
cis-1,3-Dichloropropene	25.0	24.5		ug/L		98	70 - 133
Dibromochloromethane	25.0	24.7		ug/L		99	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	23.2		ug/L		93	52 - 140
1,2-Dibromoethane (EDB)	25.0	23.6		ug/L		94	70 - 130
Dibromomethane	25.0	23.9		ug/L		96	70 - 130
1,2-Dichlorobenzene	25.0	22.5		ug/L		90	70 - 130

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

Lab Sample ID: LCS 440-355056/5
Matrix: Water
Analysis Batch: 355056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	22.6		ug/L		90	70 - 130
1,4-Dichlorobenzene	25.0	22.2		ug/L		89	70 - 130
Dichlorodifluoromethane	25.0	20.3		ug/L		81	29 - 150
1,1-Dichloroethane	25.0	21.3		ug/L		85	64 - 130
1,2-Dichloroethane	25.0	26.1		ug/L		104	57 - 138
1,1-Dichloroethene	25.0	21.4		ug/L		86	70 - 130
1,2-Dichloropropane	25.0	21.2		ug/L		85	67 - 130
1,3-Dichloropropane	25.0	22.3		ug/L		89	70 - 130
2,2-Dichloropropane	25.0	25.7		ug/L		103	68 - 141
1,1-Dichloropropene	25.0	24.2		ug/L		97	70 - 130
Ethylbenzene	25.0	25.2		ug/L		101	70 - 130
Hexachlorobutadiene	25.0	23.5		ug/L		94	10 - 150
Isopropylbenzene	25.0	27.2		ug/L		109	70 - 136
Methylene Chloride	25.0	22.6		ug/L		91	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.1		ug/L		100	63 - 131
m,p-Xylene	25.0	25.7		ug/L		103	70 - 130
Naphthalene	25.0	25.3		ug/L		101	60 - 140
n-Butylbenzene	25.0	25.1		ug/L		100	65 - 150
N-Propylbenzene	25.0	24.8		ug/L		99	67 - 139
o-Xylene	25.0	26.0		ug/L		104	70 - 130
p-Isopropyltoluene	25.0	24.7		ug/L		99	70 - 132
sec-Butylbenzene	25.0	24.5		ug/L		98	70 - 138
Styrene	25.0	22.1		ug/L		88	70 - 134
tert-Butylbenzene	25.0	26.2		ug/L		105	70 - 130
1,1,1,2-Tetrachloroethane	25.0	23.5		ug/L		94	60 - 141
1,1,2,2-Tetrachloroethane	25.0	19.0		ug/L		76	63 - 130
Tetrachloroethene	25.0	25.3		ug/L		101	70 - 130
Toluene	25.0	24.4		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	22.7		ug/L		91	70 - 130
trans-1,3-Dichloropropene	25.0	25.0		ug/L		100	70 - 132
1,2,3-Trichlorobenzene	25.0	23.9		ug/L		96	60 - 140
1,2,4-Trichlorobenzene	25.0	25.1		ug/L		101	60 - 140
1,1,1-Trichloroethane	25.0	25.6		ug/L		102	70 - 130
1,1,2-Trichloroethane	25.0	21.2		ug/L		85	70 - 130
Trichloroethene	25.0	24.4		ug/L		98	70 - 130
Trichlorofluoromethane	25.0	25.9		ug/L		104	60 - 150
1,2,3-Trichloropropane	25.0	22.9		ug/L		92	63 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	20.8		ug/L		83	60 - 140
1,2,4-Trimethylbenzene	25.0	23.2		ug/L		93	70 - 135
1,3,5-Trimethylbenzene	25.0	24.3		ug/L		97	70 - 136
Vinyl chloride	25.0	21.7		ug/L		87	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*76 - 132*
Toluene-d8 (Surr)	*109*		*80 - 128*

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

Lab Sample ID: LCS 440-355056/6
Matrix: Water
Analysis Batch: 355056

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropyl alcohol	250	266		ug/L		106	49 - 142

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*76 - 132*
Toluene-d8 (Surr)	*101*		*80 - 128*

Lab Sample ID: 440-157950-D-3 MS
Matrix: Water
Analysis Batch: 355056

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND	F1	25.0	36.6		ug/L		147	10 - 150
Benzene	ND		25.0	22.9		ug/L		92	66 - 130
Bromobenzene	ND		25.0	24.5		ug/L		98	70 - 130
Bromochloromethane	ND		25.0	24.1		ug/L		96	70 - 130
Bromodichloromethane	ND		25.0	24.6		ug/L		99	70 - 138
Bromoform	ND		25.0	26.4		ug/L		106	59 - 150
Bromomethane	ND		25.0	22.2		ug/L		89	62 - 131
Carbon tetrachloride	ND		25.0	26.5		ug/L		106	60 - 150
Chlorobenzene	ND		25.0	21.1		ug/L		84	70 - 130
Chloroethane	ND		25.0	22.1		ug/L		88	68 - 130
Chloroform	ND		25.0	23.9		ug/L		96	70 - 130
Chloromethane	ND		25.0	18.2		ug/L		73	39 - 144
2-Chlorotoluene	ND		25.0	25.4		ug/L		102	70 - 130
4-Chlorotoluene	ND		25.0	26.6		ug/L		106	70 - 130
cis-1,2-Dichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
cis-1,3-Dichloropropene	ND		25.0	23.4		ug/L		93	70 - 133
Dibromochloromethane	ND		25.0	22.9		ug/L		92	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	23.7		ug/L		95	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	22.7		ug/L		91	70 - 131
Dibromomethane	ND		25.0	24.2		ug/L		97	70 - 130
1,2-Dichlorobenzene	ND		25.0	24.3		ug/L		97	70 - 130
1,3-Dichlorobenzene	ND		25.0	23.5		ug/L		94	70 - 130
1,4-Dichlorobenzene	ND		25.0	22.2		ug/L		89	70 - 130
Dichlorodifluoromethane	ND		25.0	21.0		ug/L		84	25 - 142
1,1-Dichloroethane	ND		25.0	21.7		ug/L		87	65 - 130
1,2-Dichloroethane	ND		25.0	26.6		ug/L		106	56 - 146
1,1-Dichloroethene	ND		25.0	24.3		ug/L		97	70 - 130
1,2-Dichloropropane	ND		25.0	21.4		ug/L		86	69 - 130
1,3-Dichloropropane	ND		25.0	20.8		ug/L		83	70 - 130
2,2-Dichloropropane	ND		25.0	25.7		ug/L		103	69 - 138
1,1-Dichloropropene	ND		25.0	26.3		ug/L		105	64 - 130
Ethylbenzene	ND		25.0	24.2		ug/L		97	70 - 130
Hexachlorobutadiene	ND		25.0	24.3		ug/L		97	10 - 150
Isopropylbenzene	ND		25.0	25.7		ug/L		103	70 - 132
Methylene Chloride	ND		25.0	22.4		ug/L		90	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.8		ug/L		103	70 - 130

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

Lab Sample ID: 440-157950-D-3 MS
Matrix: Water
Analysis Batch: 355056

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m,p-Xylene	ND		25.0	24.6		ug/L		98	70 - 133
Naphthalene	ND		25.0	26.2		ug/L		105	60 - 140
n-Butylbenzene	ND		25.0	26.4		ug/L		106	61 - 149
N-Propylbenzene	ND		25.0	25.5		ug/L		102	66 - 135
o-Xylene	ND		25.0	23.9		ug/L		96	70 - 133
p-Isopropyltoluene	ND		25.0	25.8		ug/L		103	70 - 130
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	67 - 134
Styrene	ND		25.0	21.6		ug/L		86	29 - 150
tert-Butylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	22.5		ug/L		90	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	19.2		ug/L		77	63 - 130
Tetrachloroethene	ND		25.0	23.9		ug/L		96	70 - 137
Toluene	ND		25.0	22.8		ug/L		91	70 - 130
trans-1,2-Dichloroethene	ND		25.0	23.5		ug/L		94	70 - 130
trans-1,3-Dichloropropene	ND		25.0	24.1		ug/L		96	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	25.9		ug/L		104	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	28.0		ug/L		112	60 - 140
1,1,1-Trichloroethane	ND		25.0	25.7		ug/L		103	70 - 130
1,1,2-Trichloroethane	ND		25.0	19.6		ug/L		78	70 - 130
Trichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
Trichlorofluoromethane	ND		25.0	25.4		ug/L		102	60 - 150
1,2,3-Trichloropropane	ND		25.0	23.5		ug/L		94	60 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	21.1		ug/L		84	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	23.9		ug/L		96	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130
Vinyl chloride	ND		25.0	21.5		ug/L		86	50 - 137
Isopropyl alcohol	ND		250	232	J	ug/L		93	46 - 142

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Lab Sample ID: 440-157950-D-3 MSD
Matrix: Water
Analysis Batch: 355056

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND	F1	25.0	38.7	F1	ug/L		155	10 - 150	5	35
Benzene	ND		25.0	22.8		ug/L		91	66 - 130	1	20
Bromobenzene	ND		25.0	26.0		ug/L		104	70 - 130	6	20
Bromochloromethane	ND		25.0	24.4		ug/L		98	70 - 130	1	25
Bromodichloromethane	ND		25.0	24.4		ug/L		97	70 - 138	1	20
Bromoform	ND		25.0	28.2		ug/L		113	59 - 150	7	25
Bromomethane	ND		25.0	22.3		ug/L		89	62 - 131	1	25
Carbon tetrachloride	ND		25.0	25.9		ug/L		104	60 - 150	2	25
Chlorobenzene	ND		25.0	21.3		ug/L		85	70 - 130	1	20

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

Lab Sample ID: 440-157950-D-3 MSD
Matrix: Water
Analysis Batch: 355056

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		25.0	22.2		ug/L		89	68 - 130	0	25
Chloroform	ND		25.0	23.6		ug/L		94	70 - 130	1	20
Chloromethane	ND		25.0	18.3		ug/L		73	39 - 144	1	25
2-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130	5	20
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130	0	20
cis-1,2-Dichloroethene	ND		25.0	24.6		ug/L		99	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	24.1		ug/L		97	70 - 133	3	20
Dibromochloromethane	ND		25.0	23.8		ug/L		95	70 - 148	4	25
1,2-Dibromo-3-Chloropropane	ND		25.0	27.0		ug/L		108	48 - 140	13	30
1,2-Dibromoethane (EDB)	ND		25.0	24.4		ug/L		98	70 - 131	7	25
Dibromomethane	ND		25.0	23.9		ug/L		96	70 - 130	1	25
1,2-Dichlorobenzene	ND		25.0	24.9		ug/L		99	70 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	23.4		ug/L		94	70 - 130	0	20
1,4-Dichlorobenzene	ND		25.0	23.0		ug/L		92	70 - 130	4	20
Dichlorodifluoromethane	ND		25.0	20.0		ug/L		80	25 - 142	5	30
1,1-Dichloroethane	ND		25.0	21.2		ug/L		85	65 - 130	2	20
1,2-Dichloroethane	ND		25.0	26.5		ug/L		106	56 - 146	0	20
1,1-Dichloroethene	ND		25.0	24.4		ug/L		97	70 - 130	0	20
1,2-Dichloropropane	ND		25.0	21.2		ug/L		85	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	21.8		ug/L		87	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	25.2		ug/L		101	69 - 138	2	25
1,1-Dichloropropene	ND		25.0	26.8		ug/L		107	64 - 130	2	20
Ethylbenzene	ND		25.0	24.7		ug/L		99	70 - 130	2	20
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	10 - 150	3	20
Isopropylbenzene	ND		25.0	26.3		ug/L		105	70 - 132	2	20
Methylene Chloride	ND		25.0	22.7		ug/L		91	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.5		ug/L		106	70 - 130	3	25
m,p-Xylene	ND		25.0	25.1		ug/L		101	70 - 133	2	25
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140	5	30
n-Butylbenzene	ND		25.0	26.7		ug/L		107	61 - 149	1	20
N-Propylbenzene	ND		25.0	26.4		ug/L		106	66 - 135	3	20
o-Xylene	ND		25.0	24.5		ug/L		98	70 - 133	2	20
p-Isopropyltoluene	ND		25.0	26.1		ug/L		104	70 - 130	1	20
sec-Butylbenzene	ND		25.0	25.8		ug/L		103	67 - 134	2	20
Styrene	ND		25.0	21.8		ug/L		87	29 - 150	1	35
tert-Butylbenzene	ND		25.0	28.5		ug/L		114	70 - 130	5	20
1,1,1,2-Tetrachloroethane	ND		25.0	23.3		ug/L		93	60 - 149	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.0		ug/L		84	63 - 130	9	30
Tetrachloroethene	ND		25.0	24.7		ug/L		99	70 - 137	3	20
Toluene	ND		25.0	23.5		ug/L		94	70 - 130	3	20
trans-1,2-Dichloroethene	ND		25.0	23.9		ug/L		96	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	25.3		ug/L		101	70 - 138	5	25
1,2,3-Trichlorobenzene	ND		25.0	25.9		ug/L		104	60 - 140	0	20
1,2,4-Trichlorobenzene	ND		25.0	27.6		ug/L		110	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	26.0		ug/L		104	70 - 130	1	20
1,1,2-Trichloroethane	ND		25.0	22.1		ug/L		88	70 - 130	12	25
Trichloroethene	ND		25.0	24.3		ug/L		97	70 - 130	3	20
Trichlorofluoromethane	ND		25.0	25.4		ug/L		102	60 - 150	0	25

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

Lab Sample ID: 440-157950-D-3 MSD
Matrix: Water
Analysis Batch: 355056

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		25.0	26.0		ug/L		104	60 - 130	10	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25.0	21.4		ug/L		86	60 - 140	2	20
1,2,4-Trimethylbenzene	ND		25.0	24.6		ug/L		99	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	25.7		ug/L		103	70 - 130	4	20
Vinyl chloride	ND		25.0	21.2		ug/L		85	50 - 137	1	30
Isopropyl alcohol	ND		250	225	J	ug/L		90	46 - 142	3	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*102*		*80 - 128*

Method: 8270C SIM - 1,4 Dioxane by SIM

Lab Sample ID: MB 440-354621/1-A
Matrix: Water
Analysis Batch: 354919

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354621

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.10	ug/L		09/09/16 09:53	09/12/16 11:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8 (Surr)	*52*		*36 - 90*	*09/09/16 09:53*	*09/12/16 11:41*	*1*

Lab Sample ID: LCS 440-354621/3-A
Matrix: Water
Analysis Batch: 354919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354621

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			2.00	0.944		ug/L		47	36 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*42*		*36 - 90*

Lab Sample ID: LCSD 440-354621/4-A
Matrix: Water
Analysis Batch: 354919

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 354621

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			2.00	0.952		ug/L		48	36 - 120	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8 (Surr)	*44*		*36 - 90*

QC Association Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

GC/MS VOA

Analysis Batch: 355056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-157652-1	OC_SP220B_EFF_090716	Total/NA	Water	8260B	
440-157652-2	OC_SP210_INF_090716	Total/NA	Water	8260B	
440-157652-3	OC_TB_090716	Total/NA	Water	8260B	
MB 440-355056/4	Method Blank	Total/NA	Water	8260B	
LCS 440-355056/5	Lab Control Sample	Total/NA	Water	8260B	
LCS 440-355056/6	Lab Control Sample	Total/NA	Water	8260B	
440-157950-D-3 MS	Matrix Spike	Total/NA	Water	8260B	
440-157950-D-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 354621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-157652-1	OC_SP220B_EFF_090716	Total/NA	Water	3520C	
MB 440-354621/1-A	Method Blank	Total/NA	Water	3520C	
LCS 440-354621/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 440-354621/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 354919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-157652-1	OC_SP220B_EFF_090716	Total/NA	Water	8270C SIM	354621
MB 440-354621/1-A	Method Blank	Total/NA	Water	8270C SIM	354621
LCS 440-354621/3-A	Lab Control Sample	Total/NA	Water	8270C SIM	354621
LCSD 440-354621/4-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM	354621

Definitions/Glossary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Qualifiers

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.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
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)

Certification Summary

Client: Jacob & Hefner Associates P.C.
Project/Site: Omega Chemical - GWTS Monthly

TestAmerica Job ID: 440-157652-1

Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16 *
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
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Irvine, CA 92614
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 9/7/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - GWTS Monthly	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_SP220B_EFF_090716	9/7/16	1102	Grab	GW	5			x	x	
OC_SP210_INF_090716	"	1110	Grab	GW	3			x		
OC_TB_090716	"	1100	Grab	H2O	3			x		

440-157652 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____

Relinquished by:	Company: JHO	Date/Time: 9/7/16 1430	Received by:	Company: TAI	Date/Time: 9/7/16 1430
Relinquished by:	Company: TAI	Date/Time: 9/7/16 1750	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 9/7/16 1750

5.8°/5.2° # 74

Login Sample Receipt Checklist

Client: Jacob & Hefner Associates P.C.

Job Number: 440-157652-1

Login Number: 157652
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.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
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	

ATTACHMENT C

Field Forms

OMEGA
DAILY FIELD REPORT

Project Name: Omega Chemical	**Project #:** E742	**Date:** 9/14/16
Personnel: KA, A.M.	**Sub Contractors:** —	
Arrival Time: 0830	**Departure Time:**	**Hours on Site:**
Odometer (Start): —	**Odometer (End):** —	**Total Miles:** —
Task Description:	**SVE 1 OMM** ☐ **SVE 2 OMM** ☐ **GWTS OMM** ☒	
+ Additional GWM (PZ-1/4/5/6/7/8)		

Equipment List:

☐	Vacuum Meter	Type: Extech Manometer 407910	Serial #: 2147350
☐	Vacuum Meter	Type: Fluke 922 Low range	Serial #: 98040163
☒	PID	Type: MiniRAE 3000	Serial #: 592-903846
☐	Sample Pump	Type: Thomas Pump	Serial #: 061000166406
☒	Flow Meter	Type: Velocicalc 9565	Serial #: 9565P1531034
☒	Water Level Meter	Type: Solinst 101	Serial #: 48231
☒	Water Quality Meter	Type: Horiba U-52	Serial #: 21112
☒	Generator/Battery	Type: Honda 2000i	Serial #: 24391
☒	Other(s):	2" Grundfos Redi flo pump w/ control box	34009/34959

Description of Work Performed: (Summarize all field activities in a chronological sequence. Include tailgate health and safety meeting, personnel/visitors at site, calibration times and methods.)

0830 Arrive onsite. HTS. Pine Env. onsite to drop off GWM equipment.
Get paperwork ready. Mobilize equipment for GWTS OMM.
0900 Calibrate PID. OPOA (ppm): 0.0 ppm | 5.0 ppm Hexane.
0910 Go to GWTS. Start OMM.
0945 Finish OMM. Mobilize equipment for GWM.
1000 Go to Star City, PZ-7. Setup. Calibrate Horiba U-52.

Client Signature (if applicable): _____ **Date:** _____

DAILY FIELD REPORT

Project Name: Omega Chemical	Project #: E742	Date: 9/14/16

4.00 pH, 4.48 ms/cm, 0.0 NTU, 10.52 mg/L DO.

1030 Start purging. Collect samples. We installed new tubing, 102' in length, dedicated.

1115 Finish. Demob, go to PZ-8. set up.

1138 Start purging. Alex M. goes to get ice for samples. collect samples.

1245 Finish. Demob. Go to PZ-4. Set up cones/delineators to control traffic, PZ-4 @ corner of Putnam & Washington Blvd.

1314 start purging. Collect samples.

1400 Finish. Demob. Go to GWTS.

1424 Collect EB sample.

1440 Go to trailer. Enter in OMM data.

1530 Go to SVEZ to get some info for Jeff B. Distance between GAC vessels is 5'. Distance from manifold to container is 9'2".

1545 Clean up. off site.

JHA ENVIRONMENTAL

DAILY SAFETY MEETING

Project Name: Omega **Date:** 9/14/16

Project Number: E742 **Presented by:** K. Azhar

Check the Topics/Information Reviewed:

- ☑ Safety is everyone's responsibility
- ☑ Accidents can be costly
- ☑ No horseplay
- ☑ Site health and safety plan reviewed
- ☑ Review emergency protocol
- ☑ Directions to hospital (PIH)
- ☑ Employee Right-To-Know/MSDS location
- ☑ First aid, safety, and PPE location
- ☑ Safety glasses, hard hat, safety boots
- ☑ Fire extinguisher locations
- ☑ Daily work scope reviewed
- ☑ Strains and sprains
- ☑ Slips, trips, and falls
- ☑ Eye wash station locations
- ☑ Electrical ground fault
- ☑ Vehicle safety and driving/road conditions
- ☑ Public safety and fences
- ☑ Heat and cold stress
- ☑ Equipment and machinery familiarization
- ☐ Excavator swing and loading
- ☑ Decontamination steps
- ☑ Portable tool safety and awareness
- ☑ Orderly site and housekeeping
- ☑ Smoking in designated areas
- ☑ Parking and lay down area
- ☑ Leather gloves for protection
- ☑ Vehicle backing up hazards
- ☑ Sharp object, rebar, and scrap metal hazards
- ☑ Effects of the night before?
- ☑ Weather conditions (rain/snow)
- ☑ Latex gloves inner/nitrile gloves outer
- ☑ Vibration related injuries
- ☑ Open pits, excavations, and trenching hazards
- ☑ Noise hazards
- ☑ Dust and vapor control
- ☐ Excavation/trenching inspections/documentation
- ☐ Confined space entry – permit required
- ☐ Confined space entry – non-permit required
- ☐ Refueling procedures
- ☐ Full face respirators with proper cartridges
- ☐ Hot work permits
- ☐ Flying debris hazards
- ☐ Overhead utility locations cleared.
- ☑ Poison ivy/oak/sumac/insects/animals
- ☐ Upgrade to Level C at: PID (___ eV) >___ ppmv
- ☐ Work stoppage at: PID (___ eV) >___ ppmv, % LEL > 10%
- ☐ All underground utilities cleared?
- ☑ Flex-N-Stretch performed
- ☑ Anticipated visitors
- ☐ Temporary Power Lines
- ☐ Overhead Utilities
- ☐ Excavations/Trenches (competent person)
- ☐ Heavy Equipment Operations
- ☐ Overloaded Equipment (tipping)
- ☑ Heavy Lifting
- ☑ Traffic
- ☑ Exclusion Zones
- ☑ Uneven Terrain
- ☑ Chemicals
- ☑ Flammability
- ☑ Wet Surfaces
- ☑ Ladder Safety
- ☑ Pinch Points
- ☐ Unexploded Ordnance (UXO) Hazard
- ☑ Daily Vehicle Walkaround/Inspection

Other Discussion Items/Comments/Follow-up Actions: Stay hydrated

JHA Site Health and Safety Officer (SHSO) of the day: Khalid Azhar

NAME	SIGNATURE	COMPANY
Khalid Azhar	[signature]	

Instructions:

- Conduct a daily safety meeting prior to beginning each day's site activities
- Complete form, obtain signatures, and file with the Daily Summary
- Follow-up on any noted items and document resolution of any action items

SYSTEM MONITORING FORM
OMEGA CHEMICAL GROUNDWATER TREATMENT SYSTEM
WHITTIER, CA

DATE: 9/14/16

TECHNICIAN(S): K. Archer

Liquid Phase Readings

System/Air Stripper Influent

Time	Influent Flow Rate FIT-200 (gpm)	Influent Totalizer FQI-200 (gal)	Influent Flow Rate HMI (gpm)	Influent Totalizer HMI (gal)	Bag Filter FLT-205 Differential Pressure PDIT-206 (psi)	Bag Filter FLT-207 Differential Pressure PDIT-208 (psi)	Anti-Scalant Pump PMP-215 H/O/A	Anti-Scalant Tank Level TNK-210 (gal)
0918	2.89	3098464.7	3.2 ~~0.0~~	3140102	*0.0851	0.1554	AUTO	50

System/Air Stripper Discharge

Time	Discharge Flow Rate FIT-232 (gpm)	Discharge Totalizer FQI-232 (gal)	Discharge Flow Rate HMI (gpm)	Discharge Totalizer HMI (gal)	Discharge Sump Level LIT-234 (ft)	Discharge Pressure PI-231 (psi)	Discharge Pump PMP-230 H/O/A	Discharge Sump Hour Meter (Hours)	Electrical Meter (kWh)
0919	3.7	820998	3.7	4435263 (non-resettable) 820998 (resettable)	1.21	2	AUTO	6642.0	34865

Vapor Phase Readings

System Instrumentation

Time	Blower Status BWR-225 H/O/A	Blower Hour Meter BWR-225 (Hours)	Blower Discharge Pressure PI-226 (inH2O)	Blower Vapor Flow Rate FIT-228/HMI (scfm)	Air Stripper Vacuum VI-224 (inH2O)	VGAC Inlet Relative Humidity MIT-227 (%)	VGAC Inlet Temperature TIT-227 (deg F)	VGAC Differential Pressure PDIT-241 (inH2O)	VGAC Outlet Temperature TIT-242 (deg F)
0922	AUTO	0391.57	32	739	20	11.7	98.9	7.7598	83.307

Manual Readings

Time	Blower Inlet (Flow Test Port) Flow Rate (SCFM)	Blower Inlet (Flow Test Port) Relative Humidity (%)	Blower Inlet (Flow Test Port) Temperature (deg F)	VGAC Inlet SP-241 Flow Rate (SCFM)	VGAC Inlet SP-241 Relative Humidity (%)	VGAC Inlet SP-241 Temperature (deg F)	VGAC Vessels *PID calibrated to 5.0 ppm Hexane* VPGAC-240 Lead or Lag	VPGAC-245 Lead or Lag	Inlet PID (ppm)	Midpoint PID (ppm)	Outlet PID *Limit=3.6 ppm* (ppm)
0924	613	55.6	73.1	544	35.4	110.7	LAG	LEAD	1.3	0.7	0.6
									0929	0928	0927

JHA ENVIRONMENTAL

SYSTEM WELL MONITORING/ROUTINE MAINTENANCE FORM
OMEGA CHEMICAL GROUNDWATER TREATMENT SYSTEM

WHITTIER, CA

DATE: 9/14/16

TECHNICIAN(S): K. Azhar

GW Extraction Wells

Well ID	Time	Hand/Off/ Auto	Flow Rate	Pressure	Vault Level Alarm?	Pump Speed	DTW (PLC)	DTW (Manual)	Hour Meter	Valve Open	Totalizer
			(gpm)	(psi)	(yes/no)	(Hz)	(ft)	(ft)	(Hours)	(%)	(gal)
EW-1	0930	OFF	Ø	6.5	NO	Ø	85.12	-	492.4	100	68137
EW-2	0930	OFF	Ø	7.0	NO	Ø	84.40	-	6272.6	100	1136289
EW-3	0933	AUTO	Ø	12.6	NO	Ø	82.57	-	102.6	100	857077
EW-4	0720	AUTO	6.5	14.0	NO	-	80.21	-	358.2	100	10828
EW-5	0913	AUTO	5.5	6.1	NO	-	79.37	-	678.9	100	112553
DPE-3	0924	AUTO	4.2	31.1	NO	-	92.64	-	4128.2	10	373220
DPE-4	0931	AUTO	4.2	7.0	NO	-	92.33	-	5240.0	10	685905
DPE-5	0931	AUTO	3.3	12.1	NO	-	88.76	-	30684	40	402180
DPE-8	0939	AUTO	~~4.7~~ 3.0	~~6.9~~ 16.2	NO	-	~~91.44~~	90.29	2327.1	40	175648
DPE-9	0929	AUTO	3.5	11.9	NO	-	92.49	-	7513.6	10	986805

Weekly Maintenance

		Yes	No	Comments
SOP 300	Are bag filter DPs exceeding set point? Hi=10 psi, HiHi=15 psi		✓	
	Bag Filters changed out?		✓	
SOP 301	Anti-scalant pump inspected?	✓		
	Tubes in good condition?		✓	New replacement parts arrived but they are wrong size
	Flow confirmed?	✓		
SOP 302	Anti-scalant volume above 45 gallons?	✓		
	New chemical ordered?		✓	
Weekly Checks	Check blower for unusual noise or vibrations. Blower ok?	✓		
	SDLAC sample box inspected?	✓		
	SDLAC sample box cleaned?		✓	
	Check data for compliance? VPGAC outlet permit limit=3.6 ppm	✓		
	Does the system need to be shutdown? If yes, explain why.		✓	

JHA ENVIRONMENTAL

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 9/14/16
Project No.: E742	**Prepared By:**
Well Identification: PZ-7	**Weather:** Clear skies, cool, 70°F
Measurement Point Description: TOC -N	**Pump Intake:** 97' **Screen: 86-101** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	91.98	101.11	9.13	-	11.9	35.7				

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52 WQ	Well Headspace:	PID(ppm)= 1.5
	0.75	~~2"~~	4" 1.3	6	Purge Method: 3 Casing Volumes		FID(ppm)= NM
D Gallons per foot of casing	0.02	~~0.16~~	~~0.65~~	1.47	Pump Type: 2" Grundfos Rediflo	230 Hz	

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1036		~6	0.75-1.5	-	-	-	-	-	--	--	--	
1045		~11	1.0	94.10	6.98	26.18	173	1.49	--	--	--	lightly cloudy
1050		16	1.0	93.94	7.48	25.09	95.2	1.50	--	--	--	" "
1055		21	1.0	93.95	7.52	24.41	52.3	1.51	--	--	--	" "
1100		26	1.0	93.97	7.52	24.26	22.5	1.52	--	--	--	clear
1105		31	1.0	93.98	7.53	24.04	1.7	1.53	--	--	--	clear
1110		36	1.0	93.98	7.52	23.94	0.1	1.52	--	--	--	clear

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1030	1114	1.0	~37	3	-	93.98	1112	OC-GW-PZ-8-20160914

Notes First 10 min was determining pump speed for ~1.0 gpm

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 9/14/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: PZ-8	**Weather:**
Measurement Point Description: TOC -N	**Pump Intake:** 97' **Screen:** 86-101 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	A Depth to Static Water Level (ft-bmp)	B Well Total Depth (ft-bmp)	C Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	E One (1) Casing Volume (gallons) (C XD=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D)	Screen Volume (Screen length x D)	½ Screen Volume
-	91.88	101.35	9.47	-	12.3	36.9				

Well Diameter (in)	0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47

Gallons/Foot

Field Equipment: Horiba U-52 WQ

Purge Method: 3 casing volume

Pump Type: 2" Grundfos Rediflo 230 HZ

Well Headspace: PID(ppm)= 2.1 FID(ppm)= NM

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1138		0	1.0	92.87	-	-	-	-	--	--	--	
1148		10	1.0	93.94	7.66	24.05	20.5	1.46	--	--	--	Clear
1153		15	1.0	94.08	7.55	23.95	20.4	1.45	--	--	--	"
1158		20	1.0	94.15	7.53	23.92	13.4	1.45	--	--	--	"
1203		25	1.0	94.18	7.53	23.91	6.5	1.46	--	--	--	"
1208		30	1.0	94.16	7.53	23.89	4.3	1.48	--	--	--	"
1215		37	1.0	94.18	7.53	23.90	3.0	1.47	--	--	--	"

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1138	1220	1.0	~38	3	-	94.18	1217	OC-GW-PZ-7-20160914

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 9/14/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: PZ-4	**Weather:** Clear skies, warm, 75°
Measurement Point Description: TOC -N	**Pump Intake:** 81' **Screen: 70-90** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	71.97	89.30	17.33	–	5.5	16.5				

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52 WQ	Well Headspace:	PID(ppm)= 31.2
	0.75	2	4	6	Purge Method: 3 casing Vol.		FID(ppm)= NM
D Gallons per foot of casing	0.02	~~0.16~~ 0.32	0.65	1.47	Pump Type: 2" Grund Pos Red:flo	207 HZ	

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1319		~1.5	~0.5	74.15	–	–	–	–	--	--	--	
1321		4	0.5	75.75	7.80	24.58	0.0*	1.37	--	--	--	Very turbid. out of meters range
1329		8	0.5	76.89	7.50	25.34	0.0*	1.38	--	--	--	" "
1337		12	0.5	77.56	7.42	26.26	0.0*	1.39	--	--	--	" "
1346		16.5	0.5	78.06	7.43	26.60	0.0*	1.39	--	--	--	" "
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1314	1353	0.5	~17	3	–	78.06	1349	OC-GW-PZ-4-20160914

Notes

Drum No. : Purge Equipment decontaminated? Yes ☑ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date:	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Additional GWM	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_PZ-7_20160914	9/14/16	1112	Grab	GW	5			x	x	
OC_GW_PZ-8_20160914	9/14/16	1217	Grab	GW	5			x	x	
OC_GW_PZ-4_20160914	9/14/16	1349	Grab	GW	5			x	x	
OC_GW_PZ-4N_20160914	9/14/16	1424	Grab	GW	5			x	NA	8260B only
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_____201609	9/ /16		Grab	GW	5			x	x	
OC_GW_TB_20160914	9/14/16	1000		H2O	3			x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 9/15/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below ___STD___			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Additional GWM	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_ PZ-7 _20160914	9/14/16	1112	Grab	GW	5			x	x	
OC_GW_ PZ-8 _20160914	9/14/16	1217	Grab	GW	5			x	x	
OC_GW_ PZ-4 _20160914	9/14/16	1349	Grab	GW	5			x	x	
OC_GW_ PZ-4N _20160914	9/14/16	1424	Grab	GW	5			x	~~x~~ NA	8260B only
OC_GW_ PZ-5 _20160915	9/15/16	1055	Grab	GW	5			x	x	
OC_GW_ PZ-5K _20160915	9/15/16	1055	Grab	GW	5			x	x	
OC_GW_ PZ-6 _20160915	9/15/16	1242	Grab	GW	5			x	x	
OC_GW_ PZ-6N _20160915	9/15/16	1306	Grab	GW	5			x	~~x~~ NA	8260B only
OC_GW_ PZ-1 _20160915	9/15/16	1330	Grab	GW	5			x	~~x~~ NA	8260B only
OC_GW_ _201609	9/ /16		Grab	GW	5			x	x	
OC_GW_TB_20160914	9/14/16	1000		H2O	3			x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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

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

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

☐Return to Client ☐Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JHA	9/15/16 1417	[signature]	TAI	9/15/16 1417
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/17/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier: Efren	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chemical - [redacted] GWM Semi	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G / 6742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE3_20160817	8/17/16	0900	Grab	GW	5			x	x	
OC_GW_DPE4_20160817	"	0914	Grab	GW	5			x	x	
OC_GW_DPE5_20160817	"	0930	Grab	GW	5			x	x	
OC_GW_DPE8_20160817	"	0953	Grab	GW	5			x	x	
OC_GW_OW1B_20160817	"	1258	Grab	GW	5			x	x	
OC_GW_OW12_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_OW12N_20160817	"	1457	Grab	GW	5			x		
OC_GW_OW12K_20160817	"	1441	Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_TB_20160817	8/17/16	0800	Grab	H2O	3			x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flamma ☐ Skin ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JWA	8/17/16 1530	[signature]	[illegible]	8.17.16 1530
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date:	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier:	1 of ____ COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Semi-Ann. GWM August	☐ 1 week			
Site: Omega Chemical	☐ 2 days			Job / SDG No.:
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_DPE9_20160818	8/18/16	0706	Grab	GW	5			x	x	Level IV
OC_GW_OW3B_20160818	"	0904	Grab	GW	5			x	x	
OC_GW_OW3BK_20160818	"	0904	Grab	GW	5			x	x	
OC_GW_EW5_20160818	"	0915	Grab	GW	5			x	x	
OC_GW_EW4_20160818	"	0951	Grab	GW	5			x	x	
OC_GW_OW8B_20160818	"	1123	Grab	GW	5			x	x	
OC_GW_EW3_20160818	"	1137	Grab	GW	5			x	x	
OC_GW_EW1_20160818	"	1154	Grab	GW	5			x	x	
OC_GW_OW4B_20160818	"	1415	Grab	GW	5			x	x	
OC_GW_OW4BN_20160818	"	1500	Grab	GW	5			x		
OC_GW_TB1_201608	"	~~[illegible]~~ RA 0700		H2O	3			x		
OC_GW_TB2_20160818	"	0700		H_2O	3					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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

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

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

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

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JHA	8/18/16 1534	[signature]	AX:Y	8/18/16 15:38
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Irvine, CA 92614
phone 949.261.1022 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

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

Client Contact	Project Manager: Trent Henderson	Site Contact: Khalid Azhar	Date: 8/19/16	COC No:
De Maximis - Jaime Dinello	Tel/Fax: 949 453 1045/949 453 1047	Lab Contact: Danielle Roberts	Carrier: Efrain	1 of 1 COCs
1322 Scott St., Suite 104	Analysis Turnaround Time			Sampler:
San Diego, CA 92106	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(562) 756-8149	TAT if different from Below STD			Walk-in Client:
	☐ 2 weeks			Lab Sampling:
Project Name: Omega Chem. - 2016 Semi-Ann. GWM August	☐ 1 week			Job / SDG No.:
Site: Omega Chemical	☐ 2 days			
P O #: 3139G/E742	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 8260B - VOCs + Freons	EPA 8270C - 1,4 Dioxane	Sample Specific Notes:
OC_GW_OW10_20160819	8/19/16	0836	Grab	GW	5			x	x	
OC_GW_PZ9_20160819	"	1000	Grab	GW	5			x	x	
OC_GW_OW11_20160819	"	1155	Grab	GW	5			x	x	
OC_GW_OW11K_20160819	"	1155	Grab	GW	5			x	x	
OC_GW_OW9_20160819	"	1300	Grab	GW	5			x	x	
OC_GW_OW11N_20160819	"	1315	Grab	GW	5			x	[illegible]	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_ _201608			Grab	GW	5			x	x	
OC_GW_TB_20160819	8/19/16	0700		H2O	3			x		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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

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

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

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

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	JHA	8/19/16 1356	[signature]	[illegible]	8/19/16 13:54
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

JHA ENVIRONMENTAL

WELL INSPECTION FORM

Project Name: Omega Chemical Superfund Site	Date: 8-16-7	Project Number: E742

Well ID	Vault Type & Condition	Concrete	Bolts	Casing Size	Lock	Cap	Tubing	Remarks
EW-1	4'x4' Vault, Good	Good	—	6"	NO	—	—	
EW-2	" " , Good	"	—	6"	NO	—	—	
EW-3	" " , Good	"	—	6"	NO	—	—	
EW-4	" " , Good	"	—	6"	NO	—	—	
EW-5	" " , Good	"	—	6"	NO	—	—	
PZ-1	12" Emco	Y, Good	NO	2"	NO	Yes	NO	
PZ-2	12" Morris	Y	N	2"	Y	Y	N	
PZ-3	8" Emco	Y	N	2"	Y	Y	N	
PZ-4	8" Emco	Y	Y	2"	Y	Y	N	
PZ-5	8"	Y	Y	4"	N	Y	Y	
PZ-6	8"	Y	N	4"	N	Y	Y	
PZ-7	8"	Y	Y	4"	N	Y	N	
PZ-8	8"	Y	Y	4"	N	Y	N	
PZ-9	12" Emco	Y	Y	2"	N	Y	Y	
OW-1a	9" Monument	Y	N/A	4"	N	Y	Y	
OW-1b	12" Emco	Y, good	Y	4"	N	Y	Y	
OW-2	12" EMCO	Y	I	4"	Y	Y	N	
OW-3a	12" Emco	Y, good	Y	4"	N	Y	Y	
OW-3b	12" Emco	Y, good	N	4"	N	Y	Y	
OW-4a	12" EMCO	none	I	4"	N	Y	N	Cap is broken
OW-4b	12" EMCO	Y	Y	4"	Y	Y	Y	
OW-5	12" EMCO	none	Y	4"	Y	Y	Y	Bolts not threaded closed
OW-6	12" EMCO	none	N	4"	Y	Y	Y	
OW-7	12" EMCO	Y	I	4"	Y	Y	Y	
OW-8a	12" EMCO	Y	Y	4"	Y	Y	Y	
OW-8b	17.5" Irwindale	Y, good	Y, 3 missing	4"	Y	Y	Y	
OW-9a	12" Emco	Y, good	Y	4"	N	Y	Y	
OW-10	12" Emco	Y	Y	4"	Y	Y	Y	

Technician: K. Azher, C. Johnson

WELL INSPECTION FORM

Project Name: Omega Chemical Superfund Site	Date:	Project Number: E742

Well ID	Vault Type & Condition	Concrete	Bolts	Casing Size	Lock	Cap	Tubing	Remarks
OW-11	12" Emco	Yes, good	Yes	4"	no	Yes	Yes	
OW-12	12" Emco	Yes, good	Yes	4"	no	Yes	Yes	
DPE-3	4' x 4' vault	Yes, good	Yes	4"	NO	–	–	
DPE-4	"	"	"	4"	"	–	–	
DPE-5	"	"	"	4"	"	–	–	
DPE-8	"	"	"	4"	"	–	–	
DPE-9	"	"	"	4"	"	–	–	
VE-10D								
VE-12D								
VE-13D								
VE-11D								
VE-6D								
VE-7D								
VE-14D								

NM

JHA ENVIRONMENTAL

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: OW-1	**Weather:** Warm, clear skies, 93°F
Measurement Point Description: TOC -N	**Pump Intake:** — **Screen:** 62.5-77.5 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
--	79.78	82.54	—	—	—	—	—	—	—	—

Well Diameter (in)	Gallons/Foot				Field Equipment: —	Well Headspace:	PID(ppm)= 0.0
	0.75	2	4	6	Purge Method: —		~~PID(ppm)~~= 0 ppb
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Pump Type: —		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1450		WL		15	BELOW	BOTTOM	of	SCREEN	INTERVAL		--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
-	-	-	-	-	-	-	-	-

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16
Project No.: E742	**Prepared By:** K. Dehar
Well Identification: OW-5	**Weather:** Warm, clear skies, 93°F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen: 30-50** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	DRY	49.53	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment:

Purge Method:

Pump Type:

Well Headspace: PID(ppm)= 13.8; PID(~~ppm~~ ppb)= 335

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1344		WELL IS DRY							--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16		
Project No.: E742	**Prepared By:** K. Asher		
Well Identification: OW-6	**Weather:** Warm, clear skies, 93°F		
Measurement Point Description: TOC -N	**Pump Intake:** –	**Screen: 38-58**	**Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	**Depth to Static Water Level (ft-bmp)** A	**Well Total Depth (ft-bmp)** B	**Water Column Height (ft)** (A – B = C)	**LNAPL Thickness (ft-bmp)**	**One (1) Casing Volume (gallons)** (C X D=E)	**Three (3) Casing Volumes (gallons)** (E x 3)	**½ Casing Volume** (E /2)	**Above Screen Volume** (Top screen – DTW)x D	**Screen Volume** (Screen length x D)	**½ Screen Volume**
–	58	58.16	–	–	–	–	–	–	–	–

Well Diameter (in)	**Gallons/Foot**				**Field Equipment:**	**Well Headspace:**	PID(ppm)= 17.5
	0.75	2	4	6	**Purge Method:**		~~PID(ppm)~~ ppb = 483
D **Gallons per foot of casing**	0.02	0.16	0.65	1.47	**Pump Type:**		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1350		WELL		IS	DRY				--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: OW-4	**Weather:** Warm, clear skies ~~[illegible]~~ 97°F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen: 49.8-69.8** **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume
–	70.12	74.15	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment:

Purge Method:

Pump Type:

Well Headspace: PID(ppm)= 1.5; PID(~~ppm~~ ppb)= 55

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1400		WL	IS	BELOW	BOTTOM	of	SCREEN	INTERVAL	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16
Project No.: E742	**Prepared By:** C. Azhar
Well Identification: OW-2	**Weather:** Warm, clear skies, 97°F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen: 60-80** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	–	79.58	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment:
Purge Method:
Pump Type:

Well Headspace: PID(ppm)= 0.8; PID(~~ppm~~ ppb)= 26

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1408			WELL IS DRY						--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: OW-8	**Weather:** Warm, clear skies, 93°F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen: 60.4-80** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	–	79.0	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot				Field Equipment:	Well Headspace:	PID(ppm)= 0.4
	0.75	2	4	6	Purge Method:		~~PID(ppm)~~= 15 ppb
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Pump Type:		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1416		WELL		IS	DRY				--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/16/10
Project No.: E742	**Prepared By:** K. Dzhar
Well Identification: OW-7	**Weather:** Warm, clear skies, 93°F
Measurement Point Description: TOC -N	**Pump Intake:** — **Screen: 70.9-90.9** **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	–	89.10	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment:
Purge Method:
Pump Type:

Well Headspace: PID(ppm)= 0.0; PID(~~ppm~~ ppb)= 0

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1435		well is dry							--	--	--	
									--	--	--	
									--	--	--	
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									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: DPE-3	**Weather:** Warm, clear skies, 73°F
Measurement Point Description: TOC -N	**Pump Intake:** ~93.8 **Screen: 40-100** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to ~~Static~~ Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	87.45 / 92.31 HMI	100'	-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot				Field Equipment: –	Well Headspace:	PID(ppm)= -
	0.75	2	4	6	Purge Method: Grab sample		FID(ppm)= –
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Pump Type: –		

Time	Casing/ Screen	Volume Purged (~~gallons~~) L	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0900	–	~2L	~4.0	87.45	7.05	24.73	0.0	1.28	--	--	--	
									--	--	--	
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									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0859	0901	–	~2L	–	–	87.45	0900	OC-GW-~~DPE-3~~-~~[illegible]~~20160817 DPE3

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Asher
Well Identification: DPE-4	**Weather:** Warm, clear skies, 73°F
Measurement Point Description: TOC -N	**Pump Intake:** ~93.7 **Screen: 40-100** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to ~~Static~~ Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	86.67 / 88.81 HMI	100	-	-	-	-	-	-	-	-

Well Diameter (in)	0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Gallons/Foot

Field Equipment: –

Purge Method: Grab

Pump Type: –

Well Headspace: PID(ppm)= – FID(ppm)= –

Time	Casing/ Screen	Volume Purged (~~gallons~~ L)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (~~µS/cm~~ mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0914	–	~2L	~3.14	86.67	7.52	23.75	0.0	1.25	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0913	0915	3.14	~2L	–	–	86.67	0914	OC-GW-DPE4-20160817

Notes

Drum No. : Purge Equipment decontaminated? Yes ☐ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Asher
Well Identification: DPE-8	**Weather:** Clear skies, warm, 73°F
Measurement Point Description: TOC -N	**Pump Intake:** ~92.8 **Screen: 40-100** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	89.84 / 90.55 HW	100	-	-	-	-	-	-	-	-

Well Diameter (in)	0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Gallons/Foot

Field Equipment: –

Purge Method: Grab

Pump Type: –

Well Headspace: PID(ppm)= – FID(ppm)= –

Time	Casing/ Screen	Volume Purged (~~gallons~~ L)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0953	–	~2L	2.9	89.84	7.70	23.47	0.0	1.15	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
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									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged (L)	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0952	0954	2.9	~2L	–	–	89.84	0953	OL-GW_DPE8_20160817

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Asher
Well Identification: DPE-5	**Weather:** Clear skies, warm, 73°F
Measurement Point Description: TOC -N	**Pump Intake:** 95.5 **Screen: 40-100** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	87.98 / 88.87 HMI	100	-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment: -
Purge Method: Gas
Pump Type: -

Well Headspace: PID(ppm)= - FID(ppm)= -

Time	Casing/ Screen	Volume Purged (~~gallons~~) L	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0932	-	~2 L	2.14	87.98	7.52	23.40	0.0	1.23	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0931	0933	2.14	~2 L	-	-	87.98	0930	OL-GW-DPE5-20160817

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: OW-1b	**Weather:** Clear skies, warm, 82°F
Measurement Point Description: TOC -N	**Pump Intake:** 114' **Screen:** 110-120 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	96.24	118.07	21.83	–	28.4	85.2	14.2	–	–	–

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47

Field Equipment: Horiba U-52 WQ meter
Purge Method: 3 Vol. Purge
Pump Type: 2" Grundfos Redi-flo 247 Hz

Well Headspace: PID(ppm)= 1.0; PID(~~ppm~~ ppb)= Ø

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1130		Ø	~1.0	96.24	~~8.15~~	~~28.42~~	~~37.4~~	~~0.715~~	--	--	--	clear, odorless
1145		15	~1.0	106.35	8.15	28.42	37.4	0.715	--	--	--	"
1200		30	~1.0	107.35	8.17	29.74	35.3	0.718	--	--	--	"
1215		45	~1.0	107.11	8.29	30.24	31.8	0.739	--	--	--	"
1230		60	~1.0	106.97	8.27	30.83	32.0	0.759	--	--	--	"
1245		75	~1.0	107.03	8.22	31.81	34.2	0.788	--	--	--	"
1255		85	~1.0	107.06	8.31	30.77	29.6	0.770	--	--	--	"

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth (B - (C x .80))	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1120	1301	1.0	~86	3	–	107.06	1258	OC-GW-OW1B-20160817

Notes

Drum No. : Purge Equipment decontaminated? Yes ☑ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/17/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: OW-12	**Weather:** Clear skies, Warm, 90°F 80-100'
Measurement Point Description: TOC -N	**Pump Intake:** 94' **Screen:** [redacted] **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	89.96	99.93	9.97	~~12.96~~ –	~~38.9~~ 12.96	38.9	–	–	–	–

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52 W Quantor	Well Headspace:	PID(ppm)= 0.5
	0.75	2	4	6	Purge Method: 3 casing Vol.		~~PID(ppm)~~ ppb= 0
D Gallons per foot of casing	0.02	0.16	~~0.65~~ 1.3	1.47	Pump Type: 2" Redi flo Grundfos 237Hz		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1400		Ø	~1.0	90.5	--	--	--	--	--	--	--	
1410		10	~1.0	92.95	7.81	31.46	21.6	1.03	--	--	--	
1420		20	~1.0	92.66	7.67	30.68	16.7	1.04	--	--	--	
1430		30	~1.0	92.66	7.65	31.13	8.8	1.04	--	--	--	increased to 2.41 Hz Flow decreased
1439		38.9	~1.0	92.66	7.65	30.54	4.7	1.06	--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1400	1445	1.0	~40	3	–	92.66	1441	OC-GW-OW12-20160817 OC-GW-OW12K-20160817

Notes

Drum No.: Purge Equipment decontaminated? Yes ☑ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

234

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azhu
Well Identification: PZ-3	**Weather:** Clear skies, warm, 84°F
Measurement Point Description: TOC -N	**Pump Intake:** — **Screen: 69.8-89.8** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	–	89.25	–	–	–	–	–	–	–	–

Well Diameter (in)	Gallons/Foot			
	0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment: ✓
Purge Method:
Pump Type:

Well Headspace: PID(ppm)= 0.0
PID(~~ppm~~)= ∅ ppb

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1435		WELL IS DRY							--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
–	–	–	–	–	–	–	–	–

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: OW-4b	**Weather:** Clear sky, warm, 84°F
Measurement Point Description: TOC -N	**Pump Intake:** 117' **Screen:** 112-122.3 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	85.31	126.21	40.9	–	53.2	160				

Well Diameter (in)	0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47

Gallons/Foot

Field Equipment: Horiba U-52 WQ

Purge Method: 3 Casing Vol.

Pump Type: 2" Grund fos Rediflo 303HZ

Well Headspace: PID(ppm)= 0.6; PID(~~ppm~~ ppb)= Ø

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1333		Ø	~4.0	85.31					--	--	--	
1341		32	~4.0	87.30	7.86	28.70	4.4	1.30	--	--	--	
1349		64	~4.0	87.32	7.53	26.74	4.1	1.32	--	--	--	
1357		96	~4.0	87.32	7.43	25.99	5.6	1.32	--	--	--	
1405		128	~4.0	87.35	7.39	25.50	5.1	1.34	--	--	--	
1413		160	~4.0	87.35	7.39	25.42	5.4	1.36	--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1333	1417	4.0	161	3	–	87.35	1415	OC-GW-OW4B-20160818

Notes

Drum No. : Purge Equipment decontaminated? Yes ☑ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** E. Azhar
Well Identification: EW-1	**Weather:** Clear skies, warm, 79°F
Measurement Point Description: TOC -N	**Pump Intake:** 84.7 **Screen: 72-87** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	85.11 / 85.09 HMZ		-	-	-	-	-	-	-	-

Well Diameter (in)	0.75	2	4	6
Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment:

Purge Method:

Pump Type:

Well Headspace: PID(ppm)= FID(ppm)=

Time	Casing/ Screen	Volume Purged (~~gallons~~ L)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1151		2L		85.11	7.62	34.81	0.0	1.33	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1150	1155	-	~2L	-	-	85.11	1154	OC_GW_EW1_20160818

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☒ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: EW-2	**Weather:** Clear skies, warm, 79°F
Measurement Point Description: TOC -N	**Pump Intake:** 86.8 **Screen: 72-87** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	84.38 / 84.40 HMS		-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot				Field Equipment:	Well Headspace:	PID(ppm)= 0.0
	0.75	2	4	6	Purge Method:		PID(~~ppm~~)= Ø ppb
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Pump Type:		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1146		INSUFFICIENT AMOUNT of WATER IN WELL.							--	--	--	
		NO WATER PUMPED OUT IN 'HAND' MODE							--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
-	-	-	-	-	-	-	-	-

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: EW-3	**Weather:** Clear skies, warm, 79°F
Measurement Point Description: TOC -N	**Pump Intake:** ~84 **Screen: 70-85** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x C	Screen Volume (Screen length x D)	½ Screen Volume
-	82.68/82.57 HMI		-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot				Field Equipment:	Well Headspace:	PID(ppm)= 0.0
	0.75	2	4	6	Purge Method:		~~PID(ppm)~~= ppb Ø
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Pump Type:		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1128				82.68	7.50	32.38	0.8	1.05	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1127	1137	-	-	-	-	-	1137	OC_GW_E03_20160818

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Asher
Well Identification: OW-8b	**Weather:** Clear skies, warm, 73°F
Measurement Point Description: TOC -N	**Pump Intake:** 121' **Screen:** 116-126 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	100.67	125.95	25.28	-	32.86	98.6	16.43	-	-	-

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52 WQ	Well Headspace:	PID(ppm)= 0.2
	0.75	2	4	6	Purge Method: 3 Casing Vol.		PID(~~ppm~~ ppb)= Ø
D Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47	Pump Type: 2" Grundfos Rediflo 267 Hz		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1032		Ø	~2.0	100.67					--	--	--	
1042		20	~2.0	101.48	7.70	26.00	0.5	0.956	--	--	--	clear, odorless
1052		40	~2.0	101.50	7.55	25.25	0.1	0.959	--	--	--	"
1102		60	~2.0	101.54	7.49	24.96	0.0	0.966	--	--	--	"
1112		80	~2.0	101.54	7.45	24.81	0.0	0.966	--	--	--	"
1122		100	~2.0	101.54	7.44	24.59	0.0	0.976	--	--	--	"
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1032	1124	2.0	~102	3	–	101.54	1123	OC_GW_OW8B_20160818

Notes

Drum No. :

Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Archer
Well Identification: OW-3	**Weather:** Clear skies, warm, 72° F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen: 63-83** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	81.60	82.55	0.95	–	1.24	3.7	–	–	–	–

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52	Well Headspace:	PID(ppm)= 0.1
	0.75	2	4	6	Purge Method: Bailing		PID(~~ppm~~ ppb)= Ø
D Gallons per foot of casing	0.02	0.16	~~0.65~~ 1.3	1.47	Pump Type: 2" Bailer		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity ( )	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
–		NOT ENOUGH WATER TO PULL UP W/ BAILER							--		--	
		TOO MUCH SEDIMENT @ BOTTOM of WELL.							--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1002	1009	–	–	–	–	–	–	–

Notes Made several attempts to pull up water. Too much sediment @ bottom of well causing the bailers ball check valve to not seat properly. Also, there is only 0.95' of water column.

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azho
Well Identification: EW-4	**Weather:** Clear skies, warm, 72°F
Measurement Point Description: TOC -N	**Pump Intake:** ~83.7 **Screen: 71-86** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW) x D	Screen Volume (Screen length x D)	½ Screen Volume
-	80.40 / 80.18 HMI	~~80.18~~	-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment: /
Purge Method:
Pump Type:

Well Headspace: PID(ppm)= – FID(ppm)= –

Time	Casing/ Screen	Volume Purged (~~gallons~~ L)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0950		~2L	>1	80.40					--	--	--	
1325 on	8/19/16			79.90	7.61	29.79	0.9	1.20	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0950	0955	>1	~2L	–	–	–	0951	OL-GW-EW4_20160818

Notes Took a few minutes to fill up sample containers. Not much water above pump intake. Could not get water to collect WQ. Will let well recharge and come back to get WQ.

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☒ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Dzhu
Well Identification: EW-5	**Weather:** Clear skies, cool, 71°F
Measurement Point Description: TOC -N	**Pump Intake:** 83.8 **Screen: 70-85** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	79.27 / 79.16 HMI		-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot 0.75	2	4	6	Field Equipment:	Well Headspace:	PID(ppm)= –
D Gallons per foot of casing	0.02	0.16	0.65	1.47	Purge Method: / Pump Type:		FID(ppm)= –

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (µS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0915		~2L	~5	79.27	7.58	22.59	0.0	1.17	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0913	0916	5	~2L	–	–	79.27	0915	OC-GW-EWS-20160818

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Archer
Well Identification: OW-3b	**Weather:** Clear skies, cool, 71°F
Measurement Point Description: TOC -N	**Pump Intake:** 117' **Screen:** 112-122 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	97.41	121.90	24.49	–	31.8	95.4	15.9			

Well Diameter (in)	Gallons/Foot			
	0.75	2	4	6
Gallons per foot of casing	0.02	0.16	~~0.65~~ 1.3	1.47

Field Equipment: Horiba U-52
Purge Method: 3 casing vol.
Pump Type: 2" Grundfos Rec: Flo 30GHz

Well Headspace: PID(ppm)= 0.5; PID(~~ppm~~ ppb)= 3

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0831		Ø	~3.0	101.00	7.69	21.50	13.8	1.05	--	--	--	Clear, odorless
0838		21	~3.0	105.00	7.64	21.50	13.8	1.05	--	--	--	"
0845		42	~3.0	105.42	7.91	22.34	2.0	1.03	--	--	--	"
0852		63	~3.0	105.43	7.57	22.58	0.8	1.04	--	--	--	"
0859		84	~3.0	105.43	7.51	22.70	0.4	1.15	--	--	--	"
0903		96	~3.0	105.46	7.50	22.81	0.0	1.16	--	--	--	"
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0831	0906	3.0	~98	3	–	105.46	0904	OC_GW_OW3B_20160818
								OC_GW_OW3BK_20160818

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/18/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: DPE-9	**Weather:** Clear sky, cool, 64°F
Measurement Point Description: TOC -N	**Pump Intake:** ~94.5 **Screen: 40-100** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C XD=E) E	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
-	89.13 / 89.58 HW	100'	-	-	-	-	-	-	-	-

Well Diameter (in)	Gallons/Foot 0.75	2	4	6
D Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment: –
Purge Method: Grab
Pump Type: –

Well Headspace: PID(ppm)= – FID(ppm)= –

Time	Casing/ Screen	Volume Purged (~~gallons~~ L)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0707		2 L	2.29	89.13	6.33	22.18	0.5	1.30	--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total ~~Gallons~~ L Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0705	0708	2.29	~2 L	–	–	89.13	0706	OC_GW_DPE9_20160818

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☐ **No** ☐ Purge/decon water containerized? **Yes** ☐ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/19/16
Project No.: E742	**Prepared By:** K. Asher
Well Identification: OW-9	**Weather:** Clear skies, warm, 75°F
Measurement Point Description: TOC -N	**Pump Intake:** 89' **Screen:** 70-90 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C) C	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E) D	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	85.57	89.63	4.06	–	5.23	15.7				

Well Diameter (in)	0.75	2	4	6
Gallons per foot of casing	0.02	0.16	~~0.65~~ 1.3	1.47

Gallons/Foot

Field Equipment: Horiba U-52 WQ

Purge Method: 3 Casing Vol.

Pump Type: 2" Grundfos Redi Flo 225 Hz

Well Headspace: PID(ppm)= 0.1; PID(~~ppm~~ ppb)= 0

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1023		Ø	~0.5	85.57					--	--	--	
1030		3	~0.5	87.40	7.55	26.80	454	1.24	--	--	--	lightly cloudy
1036		6	~0.5	88.07	7.29	27.98	132	1.29	--	--	--	clear
1044		9	~0.25	NA	7.23	28.82	71.2	1.34	--	--	--	"
1050		~~12~~ 10.5	WELL	WENT		DRY			--	--	--	
		14							--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1023	1050	0.5	10.5	~2	86.38	85.60	1300	OC_GW-OW9-20160819

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/19/16
Project No.: E742	**Prepared By:** K. Scher
Well Identification: OW-10	**Weather:** Clear sky, warm 80-100
Measurement Point Description: TOC -N	**Pump Intake:** 97.7' **Screen:** ~~69.5-89.5~~ **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	87.12	98.73	11.61	–	15.1	45.3	–	–	–	–

Well Diameter (in)	Gallons/Foot				Field Equipment: Horiba U-52 WQ	Well Headspace:	PID(ppm)= 0.0
	0.75	2	4	6	Purge Method: 3 Casing vol.		PID(~~ppm~~)= 0 ppb
Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47	Pump Type: 2" Grundfos RediFlo 237HZ		

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
1108		0	~1.0	87.12					--	--	--	
1118		10	~1.0	90.77	7.39	27.23	68.9	1.11	--	--	--	
1128		20	~1.0	91.78	7.33	25.99	244	1.12	--	--	--	
1138		30	~1.0	92.12	7.18	25.32	147	1.15	--	--	--	
1148		40	~1.0	92.35	7.18	25.01	35.9	1.15	--	--	--	
1154		46	~1.0	92.40	7.19	24.79	19.3	1.15	--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
1108		1.0	~48	3	–	92.41	1155	OC-GW-OW11-20160819

Notes

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/19/16
Project No.: E742	**Prepared By:** K. Azher
Well Identification: PZ-9	**Weather:** Clear skies, cool, 70°F
Measurement Point Description: TOC -N	**Pump Intake:** – **Screen:** 70-90 **Casing Material:** PVC or SS

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	84.44	89.75	5.31	–	1.7	5.1	–	–	–	–

Well Diameter (in)	0.75	2	4	6
Gallons per foot of casing	0.02	0.16	0.65	1.47

Field Equipment: Horiba U-52 WQ
Purge Method: 3 Casing Vol.
Pump Type: 2" Poly bailer
Well Headspace: PID(ppm)= 0.0; ~~PID(ppm)~~ ppb= ∅

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm/bail)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0920		∅	0.25	84.44					--	--	--	Very silty, brownish
0928		1	0.25	85.88	7.50	23.10	OR*	1.18	--	--	--	*Turb: out of meter range
0932		2	0.25	88.23	7.28	22.76	OR*	1.20	--	--	--	"
0940		3	0.25	87.92	7.22	22.77	OR*	1.21	--	--	--	"
0948		4	0.25	88.20	7.22	22.71	OR*	1.21	--	--	--	"
0953		5.1	0.25	88.45	7.25	22.66	OR*	1.22	--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm/bail)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth B - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0920	1005	0.25	~6	3	–	88.06	1000	OC-GW-PZ9-20160819

Notes

Drum No. :

Purge Equipment decontaminated? Yes ☑ No ☐ Purge/decon water containerized? Yes ☑ No ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

JHA ENVIRONMENTAL, INC.

Groundwater Sampling Data Sheet

Project Name: Omega Chemical Superfund Site	**Date:** 8/19/18
Project No.: E742	**Prepared By:** K. Azhar
Well Identification: OW-10	**Weather:** Clear skies, cool, 67°F
Measurement Point Description: TOC -N	**Pump Intake:** ~88' **Screen: 69.5-89.5** **Casing Material: PVC or SS**

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp) A	Well Total Depth (ft-bmp) B	Water Column Height (ft) (A – B = C)	LNAPL Thickness (ft-bmp)	One (1) Casing Volume (gallons) (C X D=E)	Three (3) Casing Volumes (gallons) (E x 3)	½ Casing Volume (E /2)	Above Screen Volume (Top screen – DTW)x D	Screen Volume (Screen length x D)	½ Screen Volume
–	78.66	89.10	10.44	–	13.57	40.7				

Well Diameter (in)	0.75	2	4	6
Gallons per foot of casing	0.02	0.16	1.3 ~~0.65~~	1.47

Gallons/Foot

Field Equipment: Horiba U-52 WQ

Purge Method: 3 Casing Vol.

Pump Type: 2" Grundfos RediFlo 219 Hz → 223 Hz → 227 Hz

Well Headspace: PID(ppm)= 0.0; PID(~~ppm~~ ppb)= Ø

Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolve Oxygen (mg/L)	ORP (mV)	TDS (g/L)	Observations
0713		Ø	~0.5	78.66	–	–	–	–	--	--	--	
0733		10	~0.5	82.00	6.08	23.59	92.4	1.31	--	--	--	Clear, odorless
0753		20	~0.5	82.37	6.92	24.72	40.6	1.25	--	--	--	increase speed to 223 Hz
0818		30	0.25-~0.5	85.10	7.02	25.76	127	1.28	--	--	--	increased speed to 227 Hz
0835		41	0.25-~0.5	86.23	7.13	27.61	66.5	1.29	--	--	--	increase speed to 235 Hz
									--	--	--	
									--	--	--	

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth E - (C x .80)	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
0713	0846	~0.25-0.5	~42	3	–	86.23	0836	OW_OC_OW10_20160819

Notes Pump set @ ~88' since last event the well was pumped dry. Flow keeps slowing down, increase pump speed.

Drum No. : Purge Equipment decontaminated? **Yes** ☑ **No** ☐ Purge/decon water containerized? **Yes** ☑ **No** ☐ Container type: Drum to treatment system

ft-bmp = feet below measuring point

GROUNDWATER GAUGING FORM
OMEGA CHEMICAL GROUNDWATER TREATMENT SYSTEM
WHITTIER, CA

DATE: 8/16/16 TECHNICIAN(S): K. Azher, C. Johnson

Well ID	Well Diameter	Time (hh:mm)	PID (ppm)	Depth to Water (ft btoc)	Previous Depth to Water (ft btoc) 5/25/16	Total Depth (ft btoc)	Previous Total Depth (ft btoc) 5/25/16	Screen Interval (ft btoc)	
EW-1	6	1151	0.0/Ø	85.11	85.55	-	-	72-87	
EW-2	6	1146	0.0/Ø	84.38	84.35	-	-	72-87	
EW-3	6	1128	0.0/Ø	82.68	82.58	-	-	70-85	
EW-4	6	0950	0.0/Ø	80.40	79.99	-	-	71-86	
EW-5	6	0915	0.0/Ø	79.27	78.76	-	-	70-85	
PZ-1	2	0725	0.0/Ø	86.60	86.49	87.25	87.25	68-88	
PZ-2	2	1200	0.0/Ø	84.20, DRY	84.23	84.40	84.42	64-84	
PZ-3	2	1435	0.0/Ø	Dry	89.1	89.25	89.26	69.8-89.8	
PZ-4	2	0935	0.0/Ø	72.32	73.21	89.31	89.25	70-90	
PZ-5	2	1350	0.2/Ø	~~89.30~~ 90.23	90.5	98.41	98.41	83-98	
PZ-6	2	1355	0.2/Ø	89.30	89.55	96.52	96.55	83-98	
PZ-7	2	1342	72/146	92.04	92.09	101.0	101	86-101	
PZ-8	2	1337	1.1/Ø	91.80	91.88	101.37	101.37	86-101	
PZ-9	2	0915	0.0/Ø	84.44	84.32	89.75	89.8	70-90	
OW-1a	4	1450	0.0/Ø	DRY, 79.78	79.81	82.54	82.55	62.5-77.5	WL below bottom of screen interval
OW-1b	4	1108	10/Ø	96.24	95.61	118.07	118.18	110-120	
OW-2	4	1408	0.8/26	DRY	DRY	79.58	79.7	60-80	
OW-3a	4	0936	0.1/Ø	81.60	81.6	82.55	82.59	63-83	
OW-3b	4	0830	0.5/3	97.41	96.48	121.90	121.91	112-122	
OW-4a	4	1400	1.5/55	DRY, 70.12	70.05	74.15	74.3	49.8-69.8	WL below bottom of screen ~~test~~ interval
OW-4b	4	1330	0.4/0	85.31	84.4	126.21	126.35	112-122.3	
OW-5	4	1344	13.8/335	DRY	DRY	49.53	49.55	30-50	
OW-6	4	1350	17.5/483	DRY	DRY	58.16	58.2	38-58	
OW-7	4	1435	0.0/Ø	DRY	DRY	89.10	89.07	70.9-90.9	
OW-8a	4	1416	0.4/15	DRY	DRY	79.0	79.1	60.4-80	
OW-8b	4	1025	0.2/Ø	100.67	99.7	125.95	126	116-126	
OW-9	4	1020	0.1/Ø	85.57	85.27	89.63	89.72	70-90	
OW-10	4	0705	0.0/Ø	78.66	78.44	89.10	89.15	69.5-89.5	
OW-11	4	1102	0.0/Ø	87.12	86.82	98.73	98.75	80-100	

89.25

JHA ENVIRONMENTAL

GROUNDWATER GAUGING FORM
OMEGA CHEMICAL GROUNDWATER TREATMENT SYSTEM
WHITTIER, CA

DATE: 8/16/18

TECHNICIAN(S): K. Acker, C. Johnson

Well ID	Well Diameter	Time (hh:mm)	PID (ppm)	Depth to Water Man (ft btoc) HMI	Previous Depth to Water (ft btoc) 5/25/16	Total Depth (ft btoc)	Previous Total Depth (ft btoc) 5/25/16	Screen Interval (ft btoc)
OW-12	4	1350	0.5/0	89.96	90.15	99.93	97.31	80-100
DPE-3	4	0859	—	87.45/92.31	90.73	-	-	40-100
DPE-4	4	0913	—	86.67/88.81	89.7	-	-	40-100
DPE-5	4	0931	—	87.88/88.87	86.12	-	-	40-100
DPE-8	4	0952	—	89.84/90.55	86.17	-	-	40-100
DPE-9	4	0705	—	89.13/89.58	87.3	-	-	40-100
VE-6D	4							40-100
VE-7D	4							40-100
VE-10D	4							40-100
VE-11D	4				NM			40-100
VE-12D	4							40-100
VE-13D	4							40-100
VE-14D	4							40-100

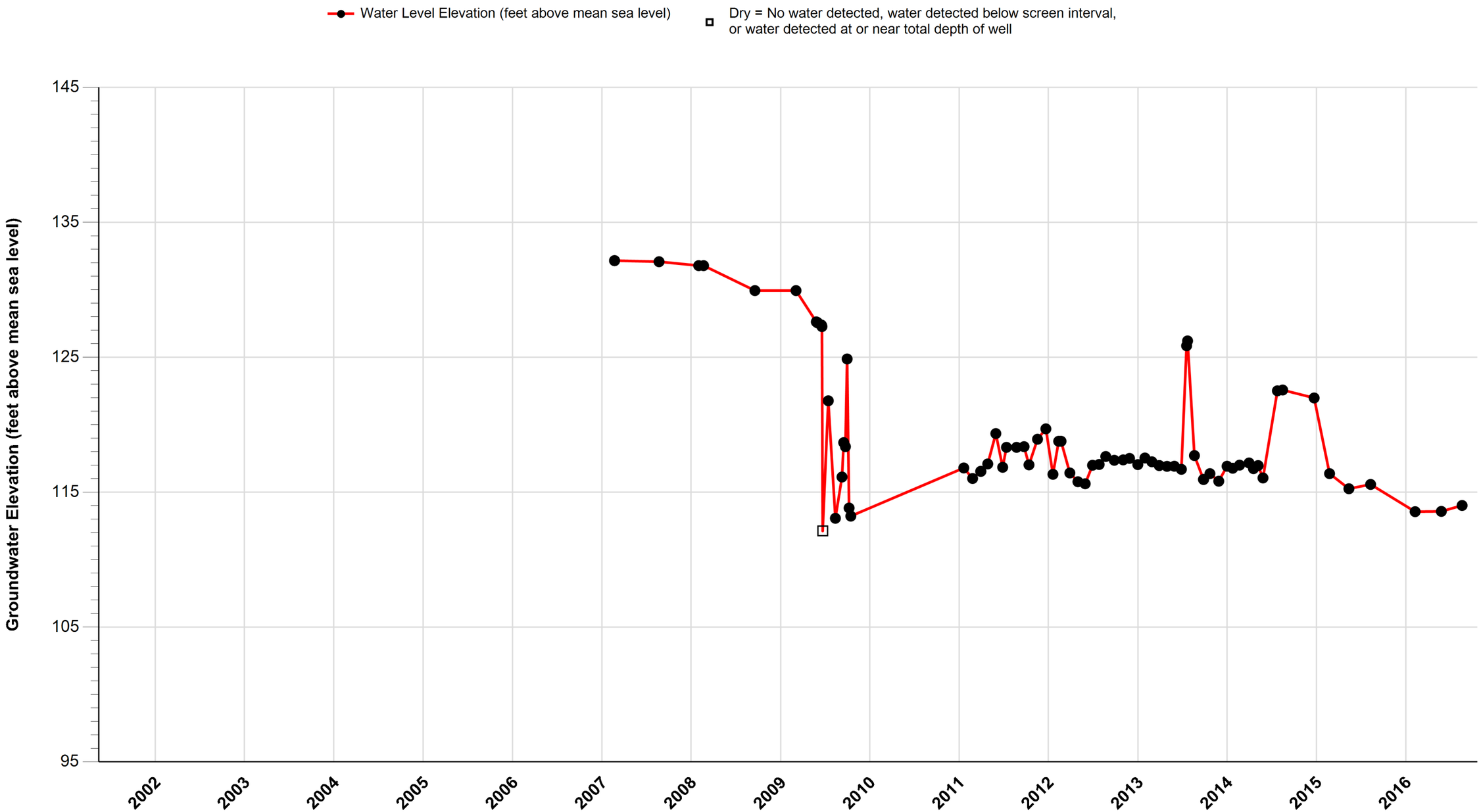
JHA ENVIRONMENTAL

ATTACHMENT D

Time Series Charts: Water Levels and Water Quality

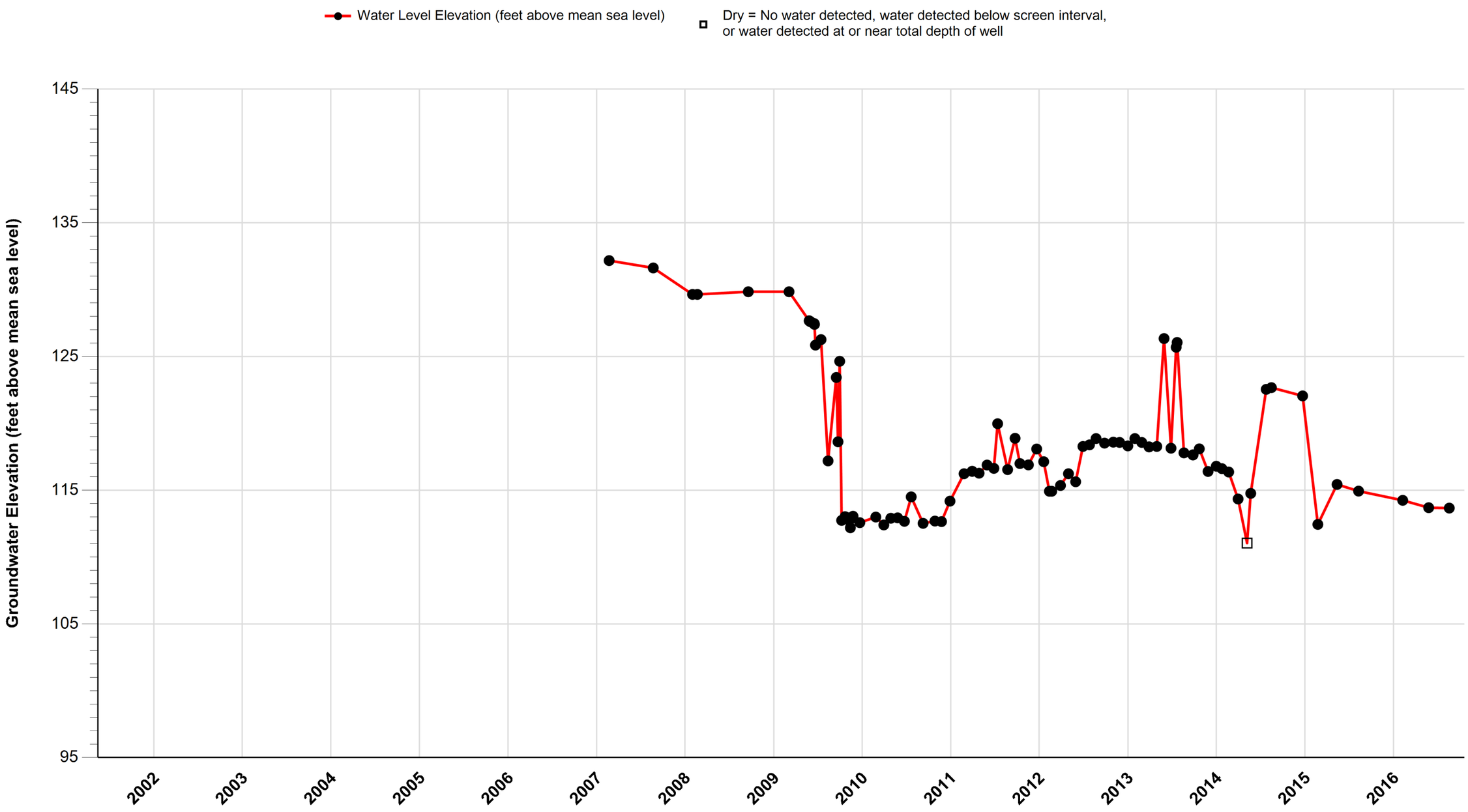
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

EW-1



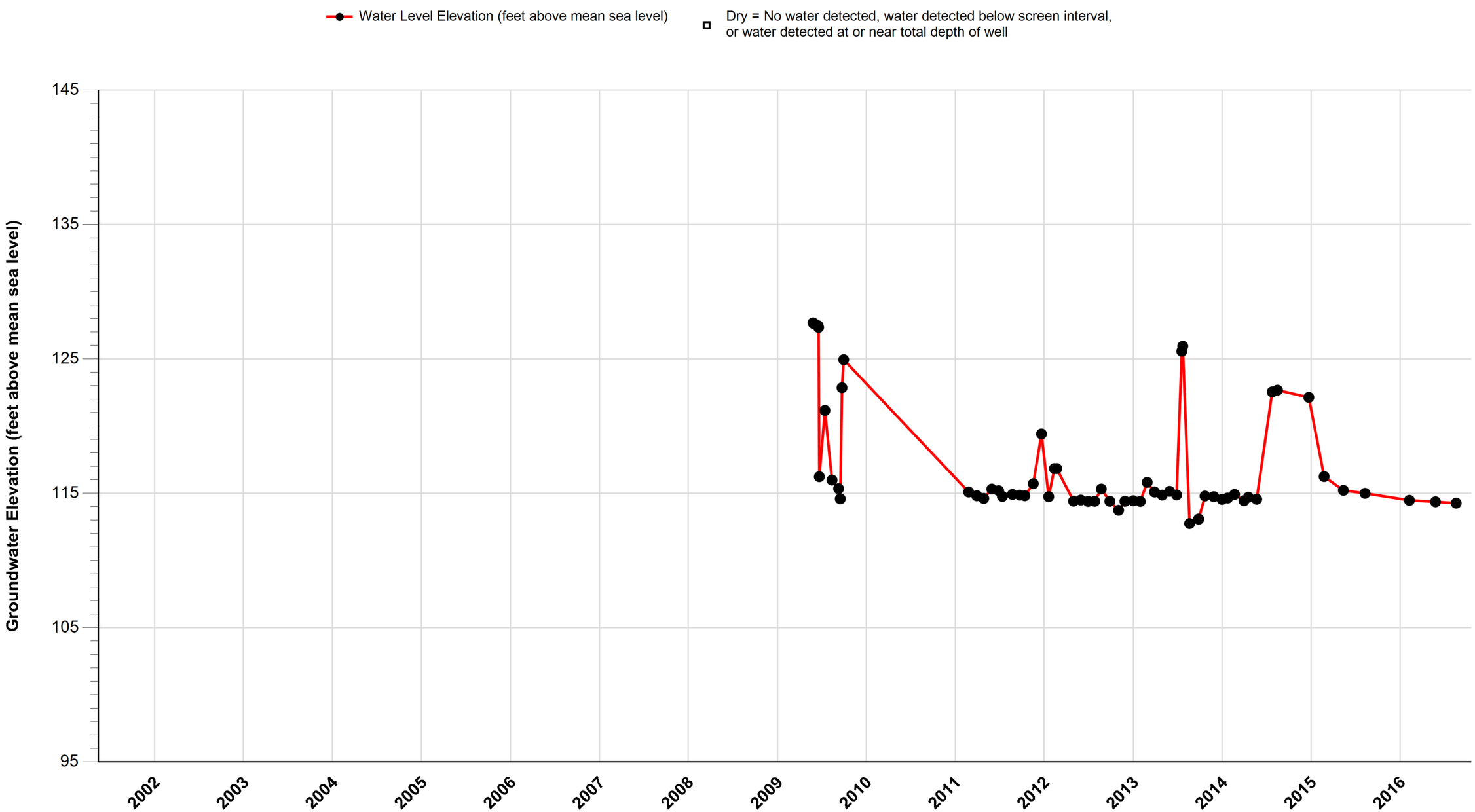
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

EW-2



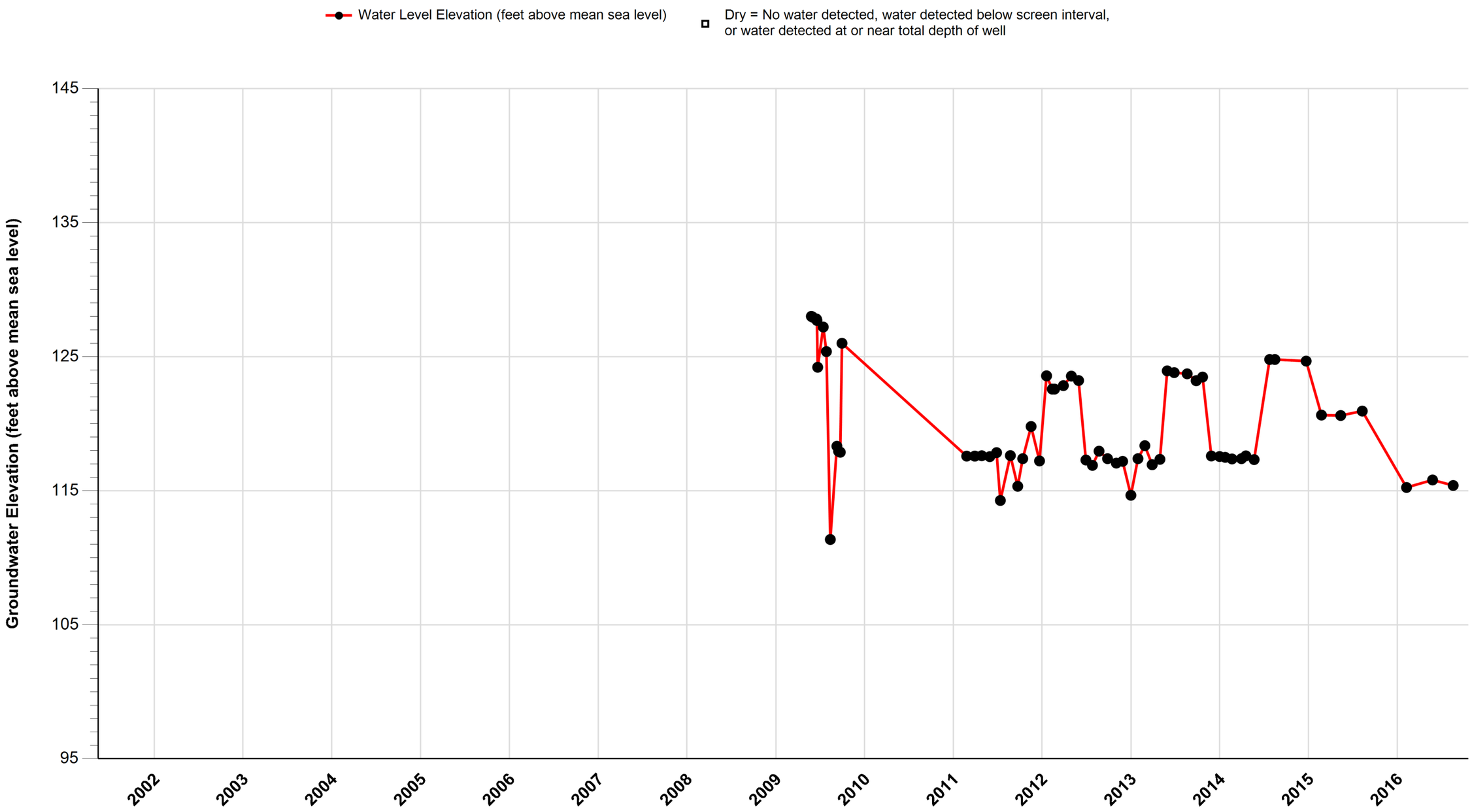
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

EW-3



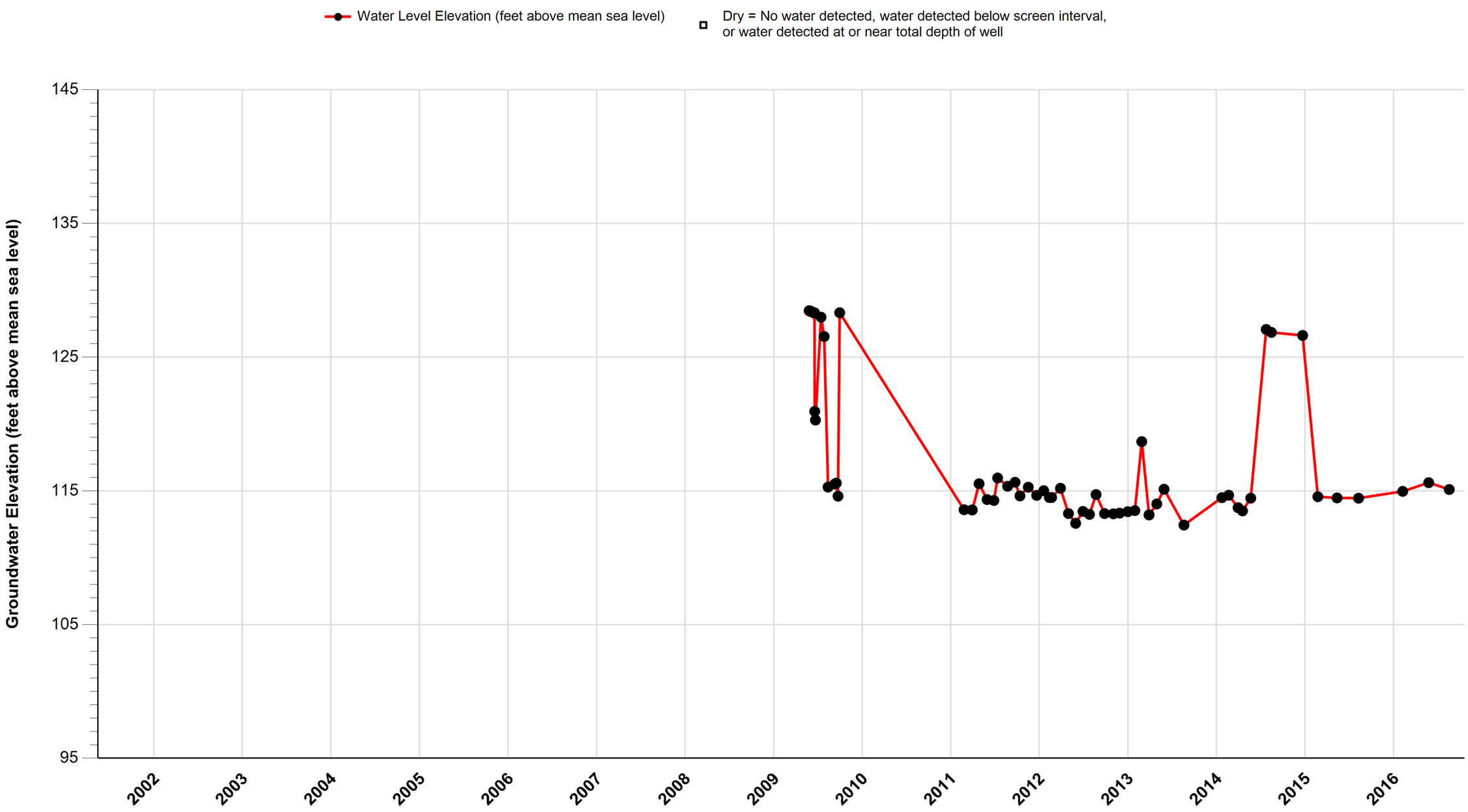
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

EW-4



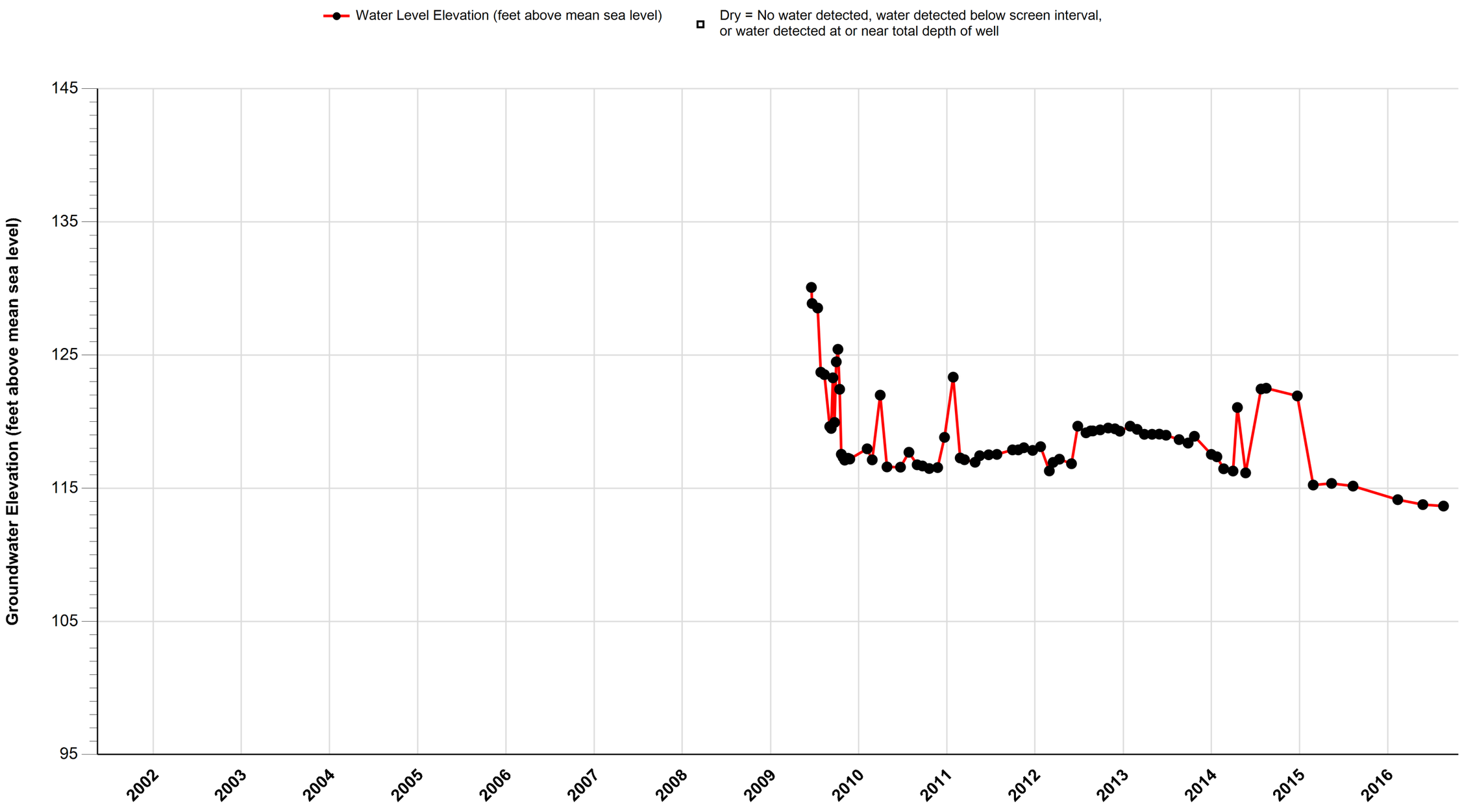
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

EW-5



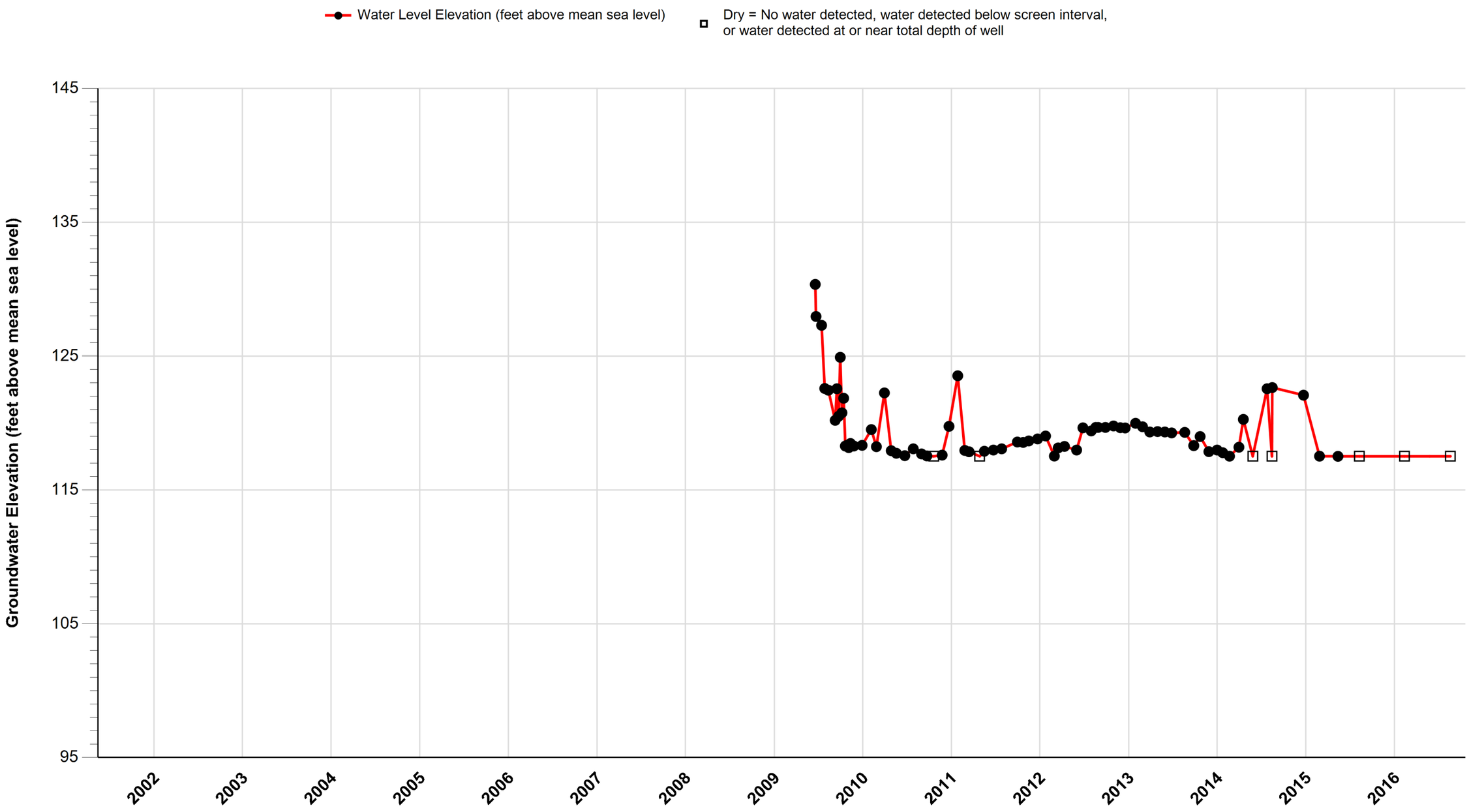
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-1



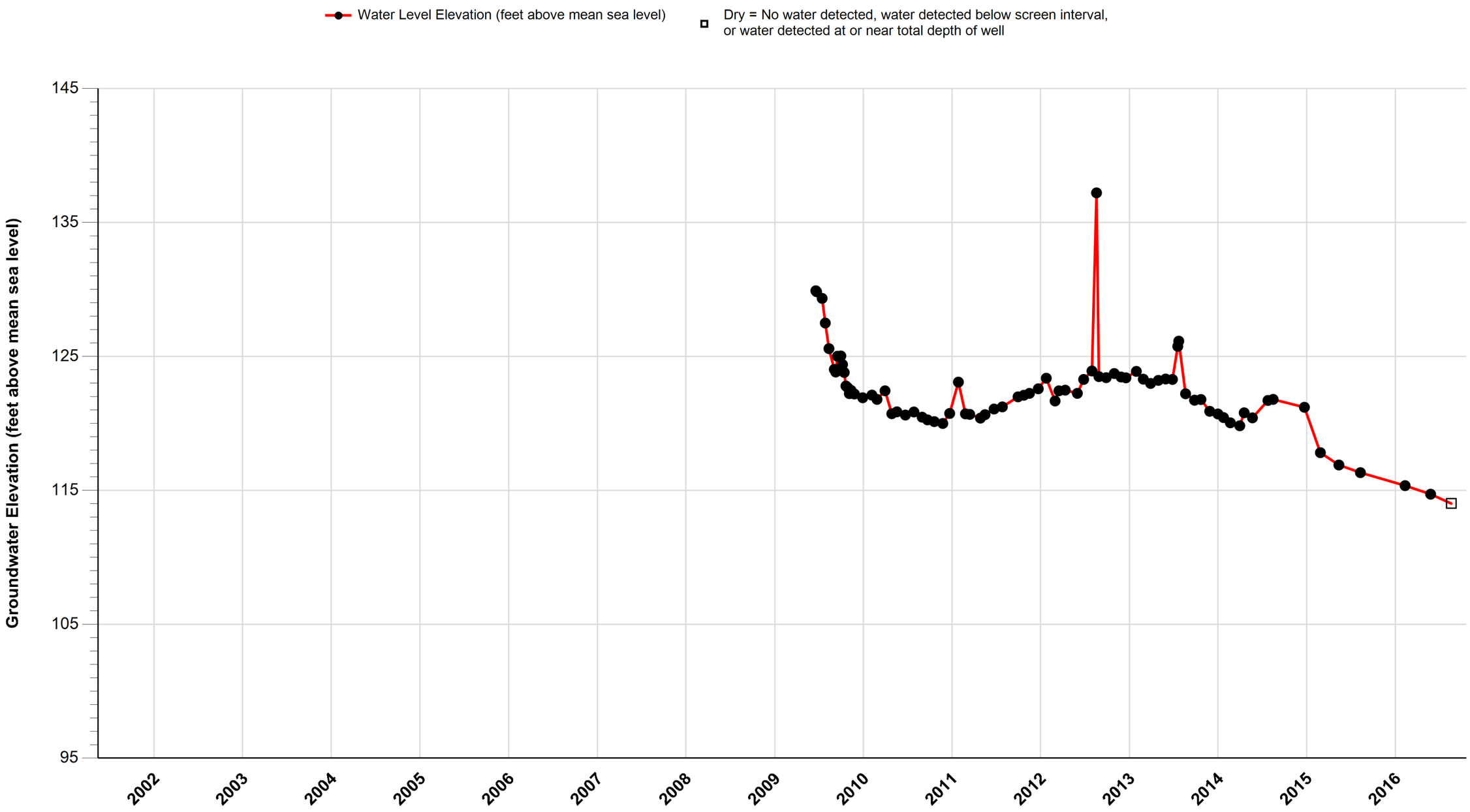
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-2



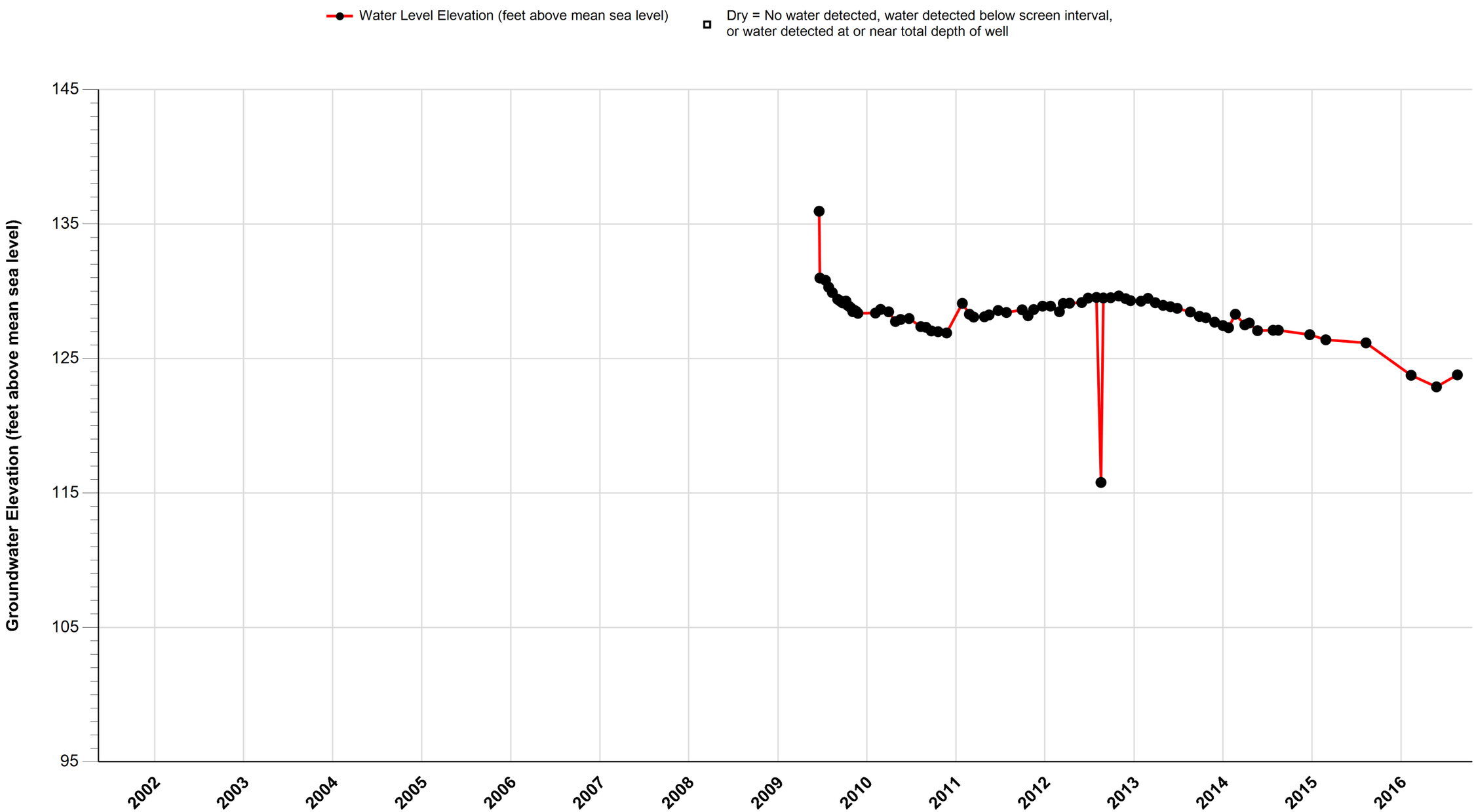
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-3



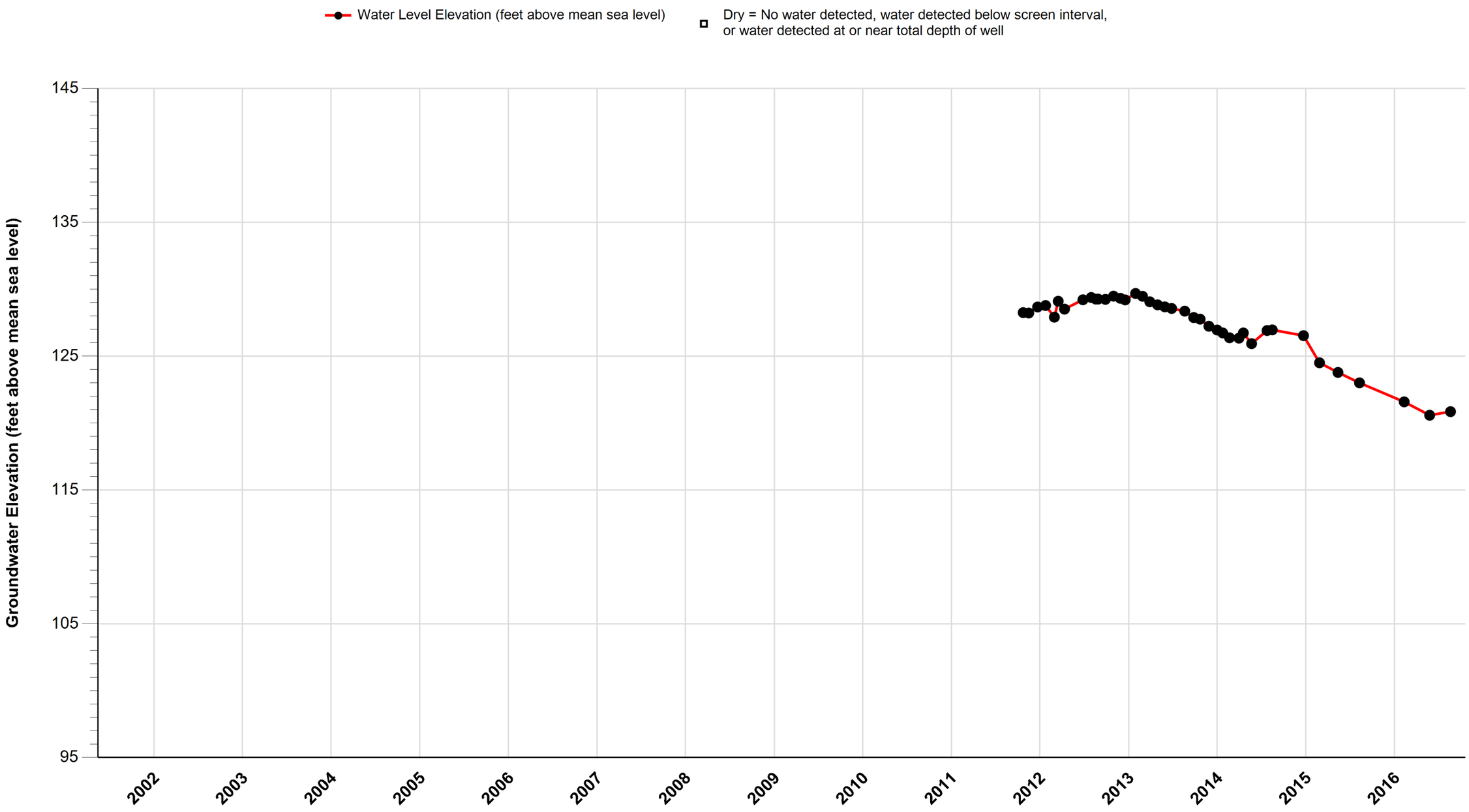
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-4



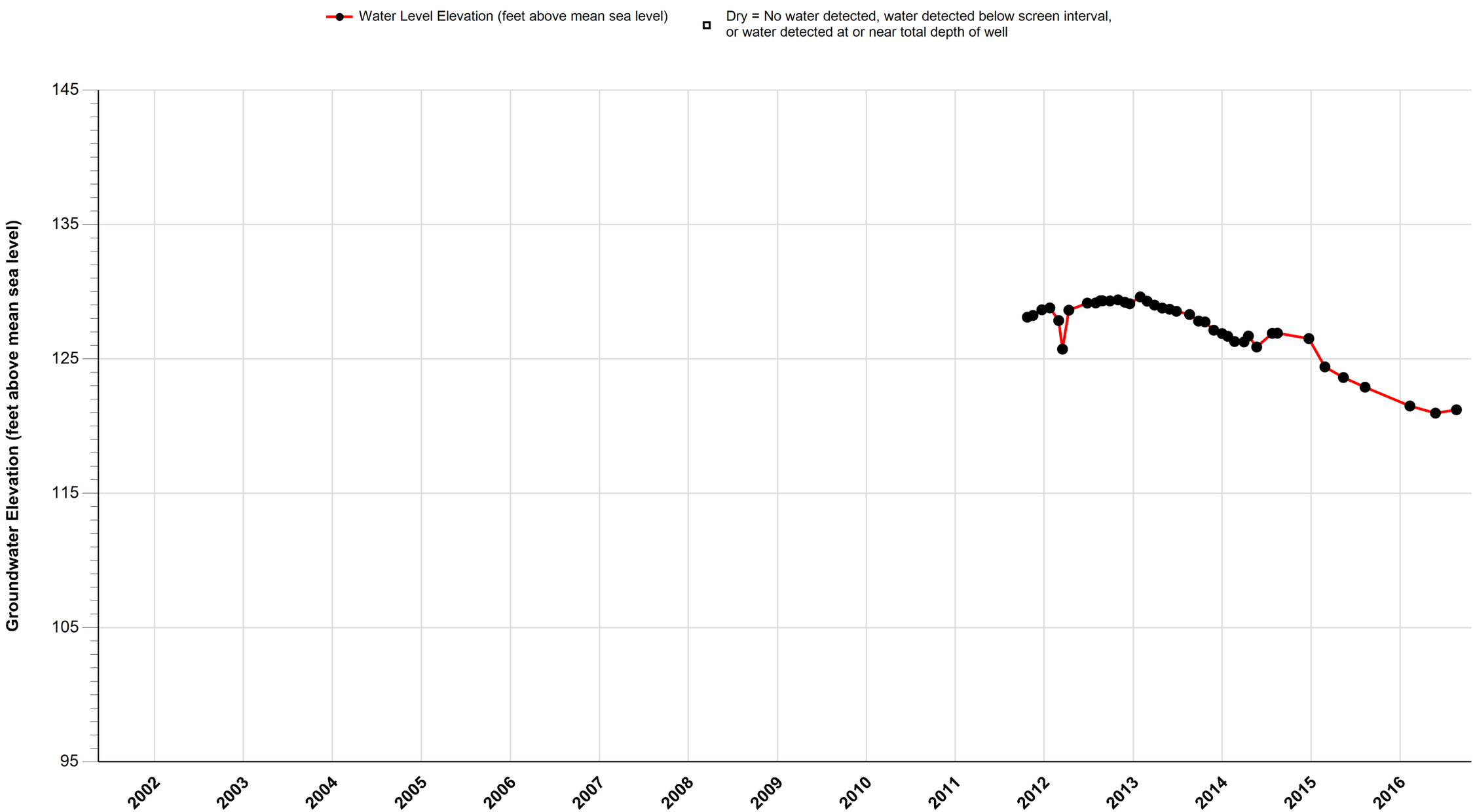
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-5



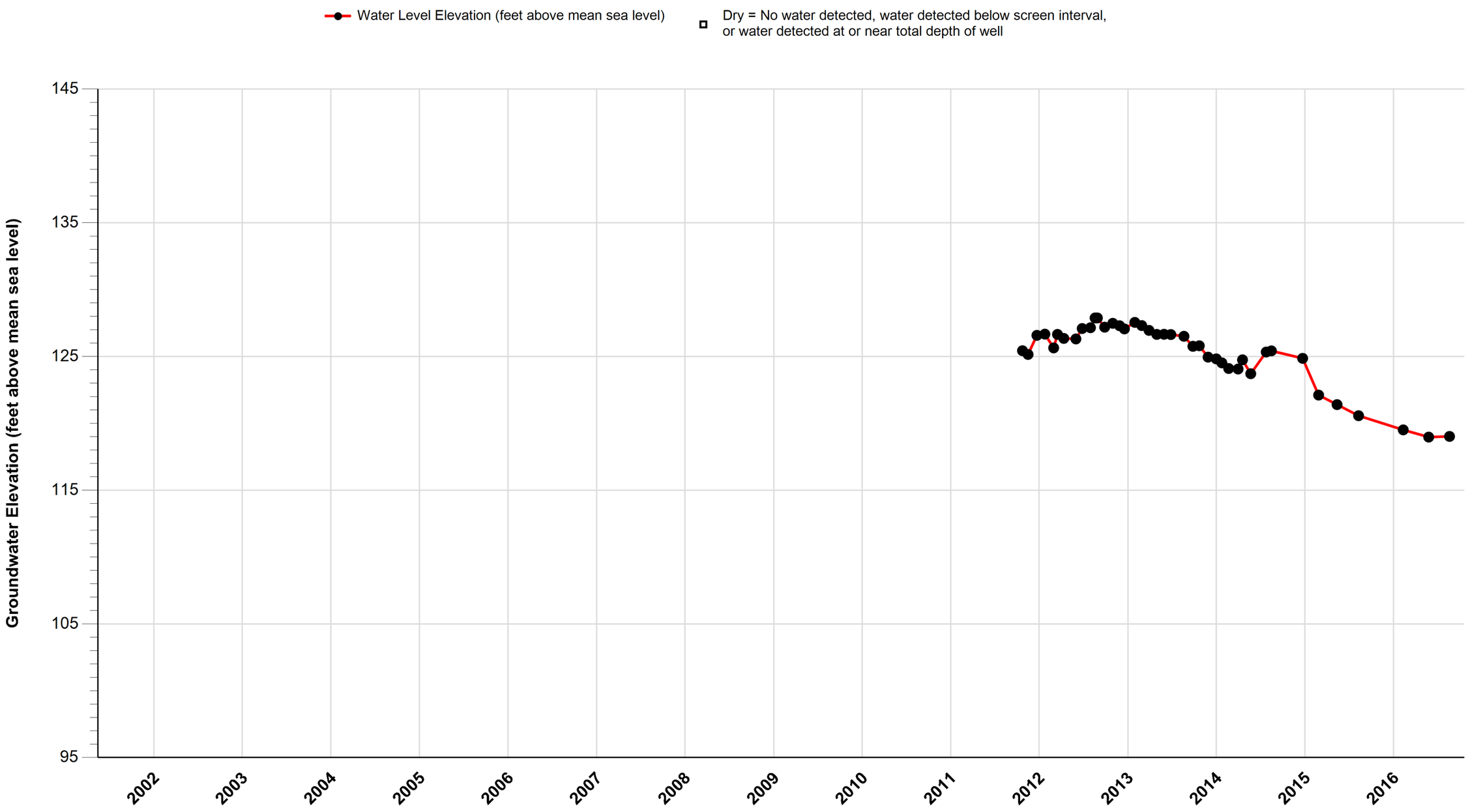
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-6



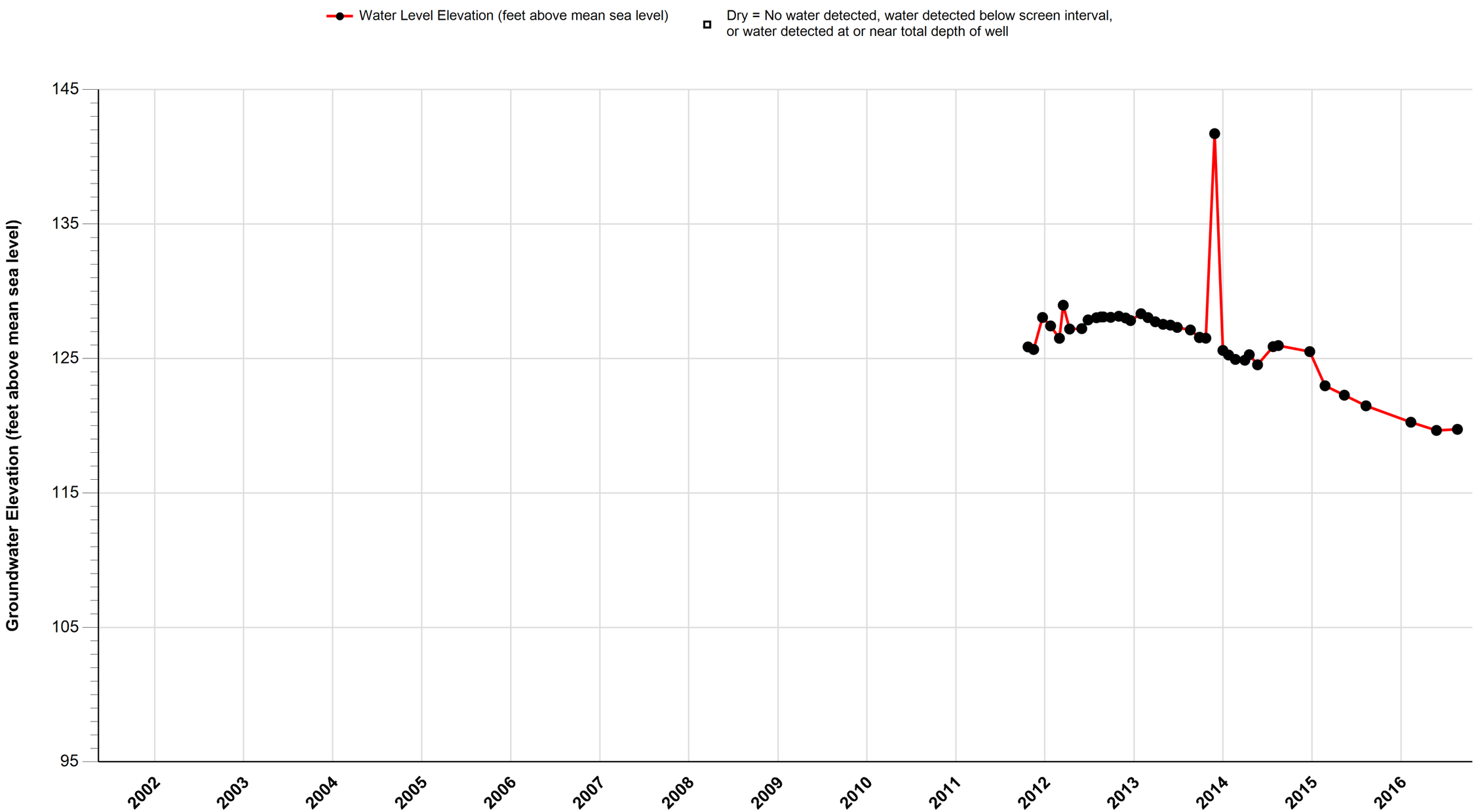
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-7



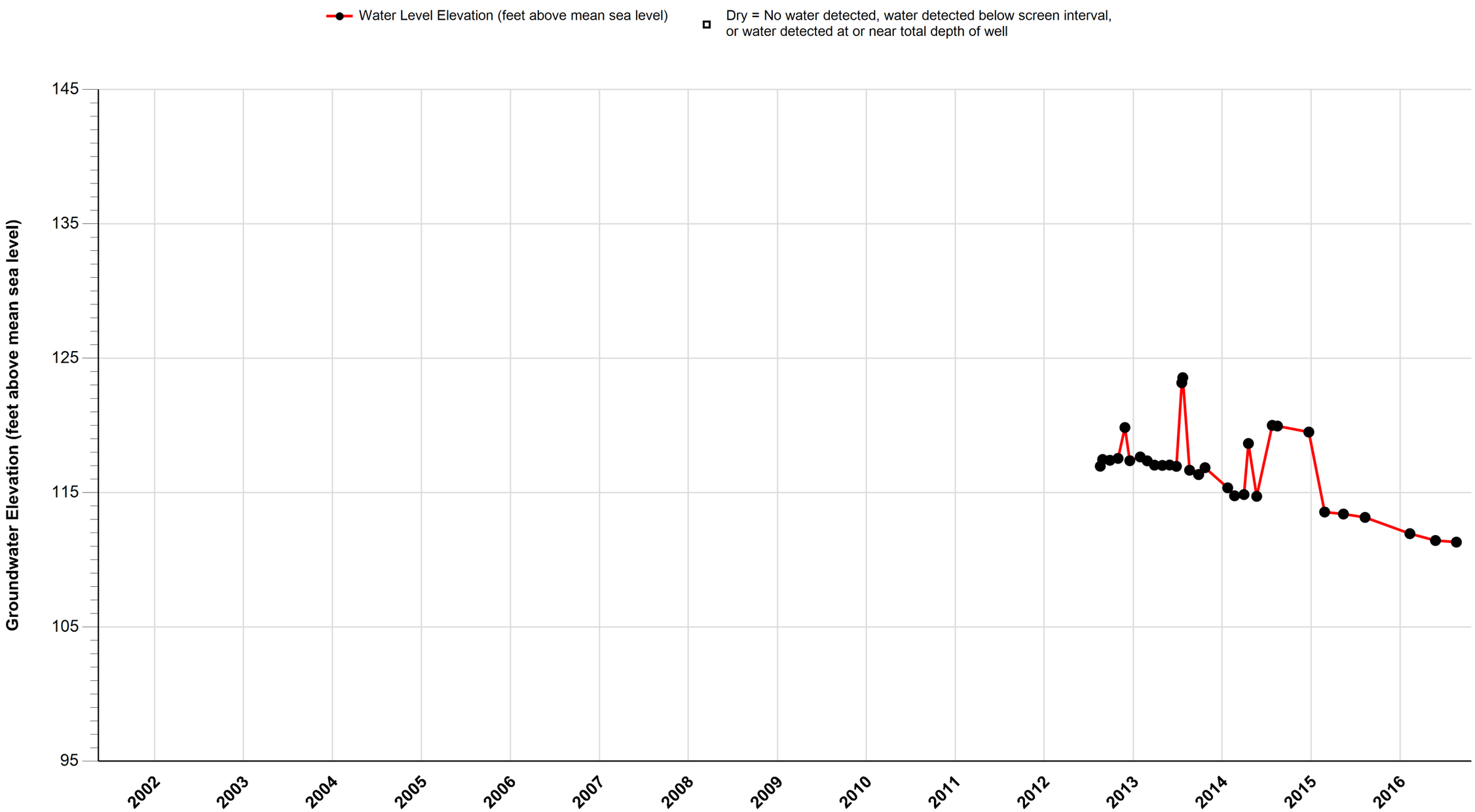
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-8



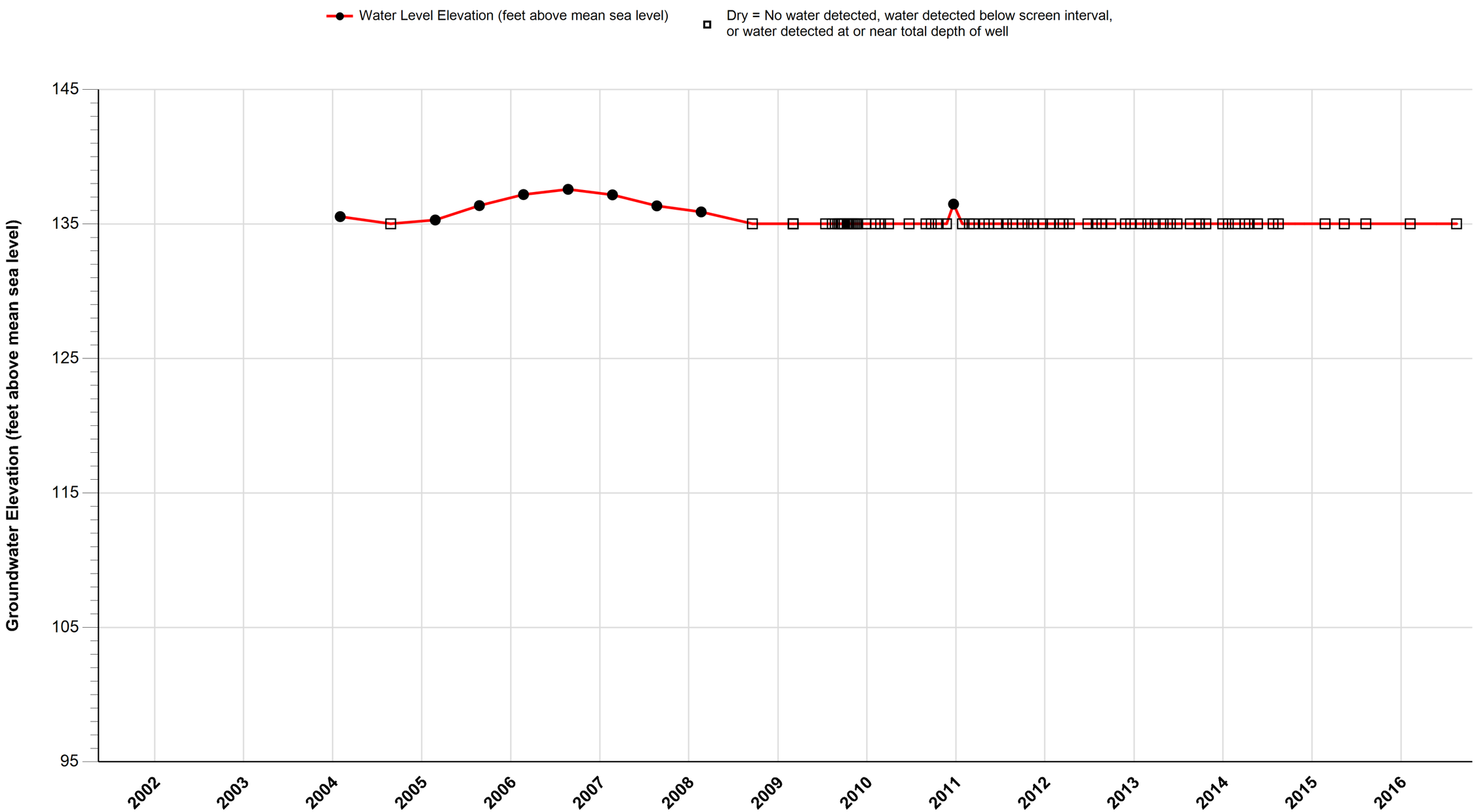
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

PZ-9



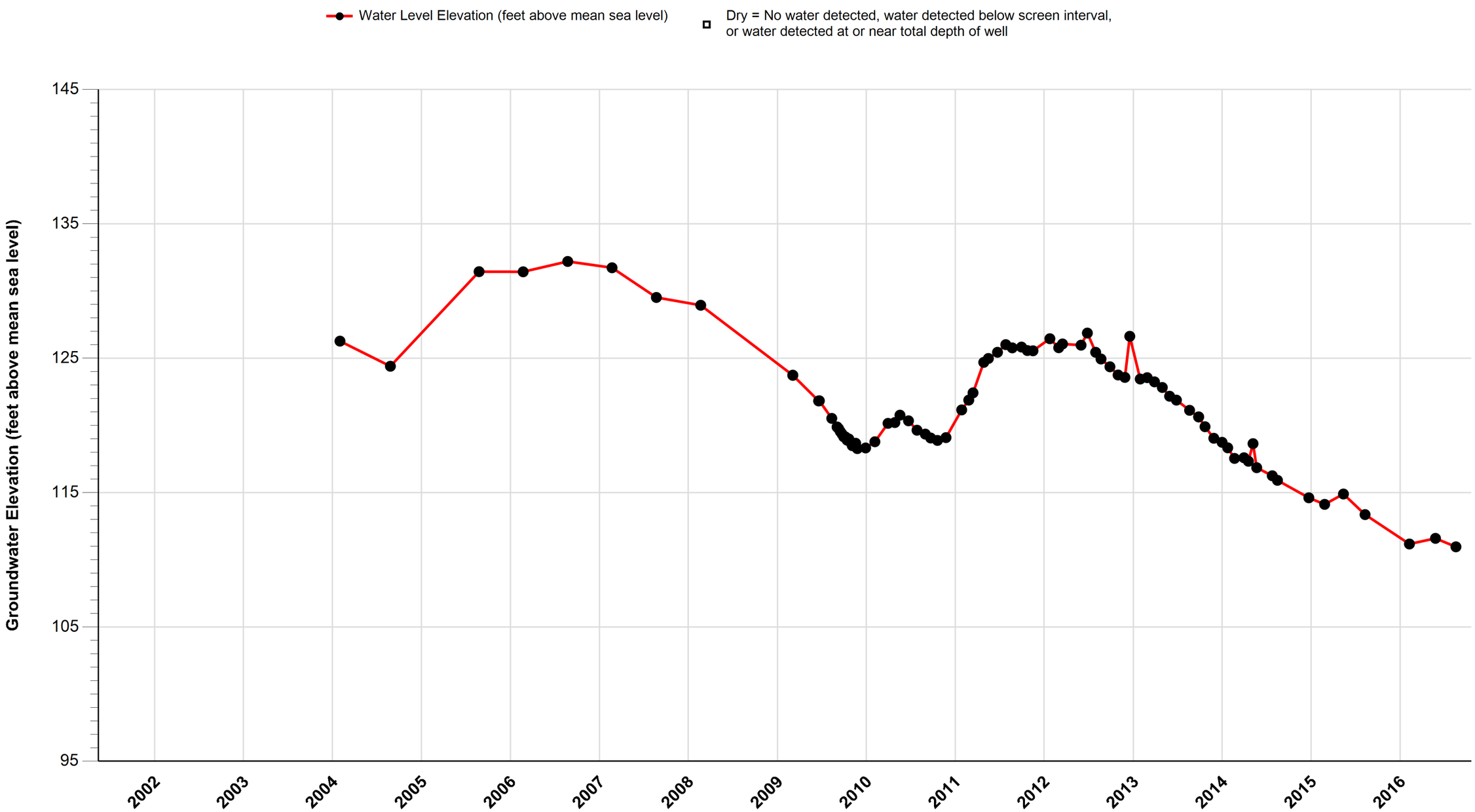
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW1A



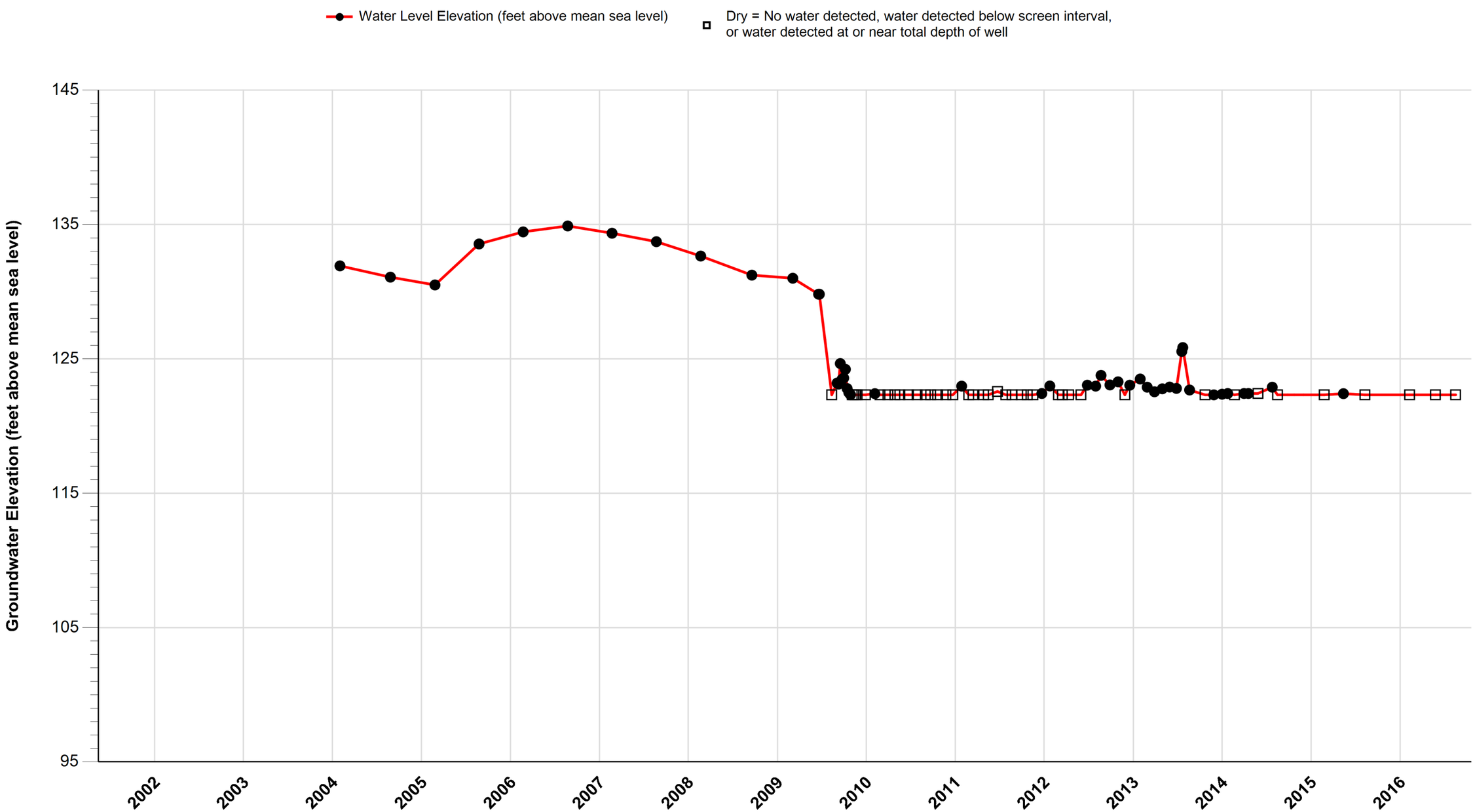
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW1B



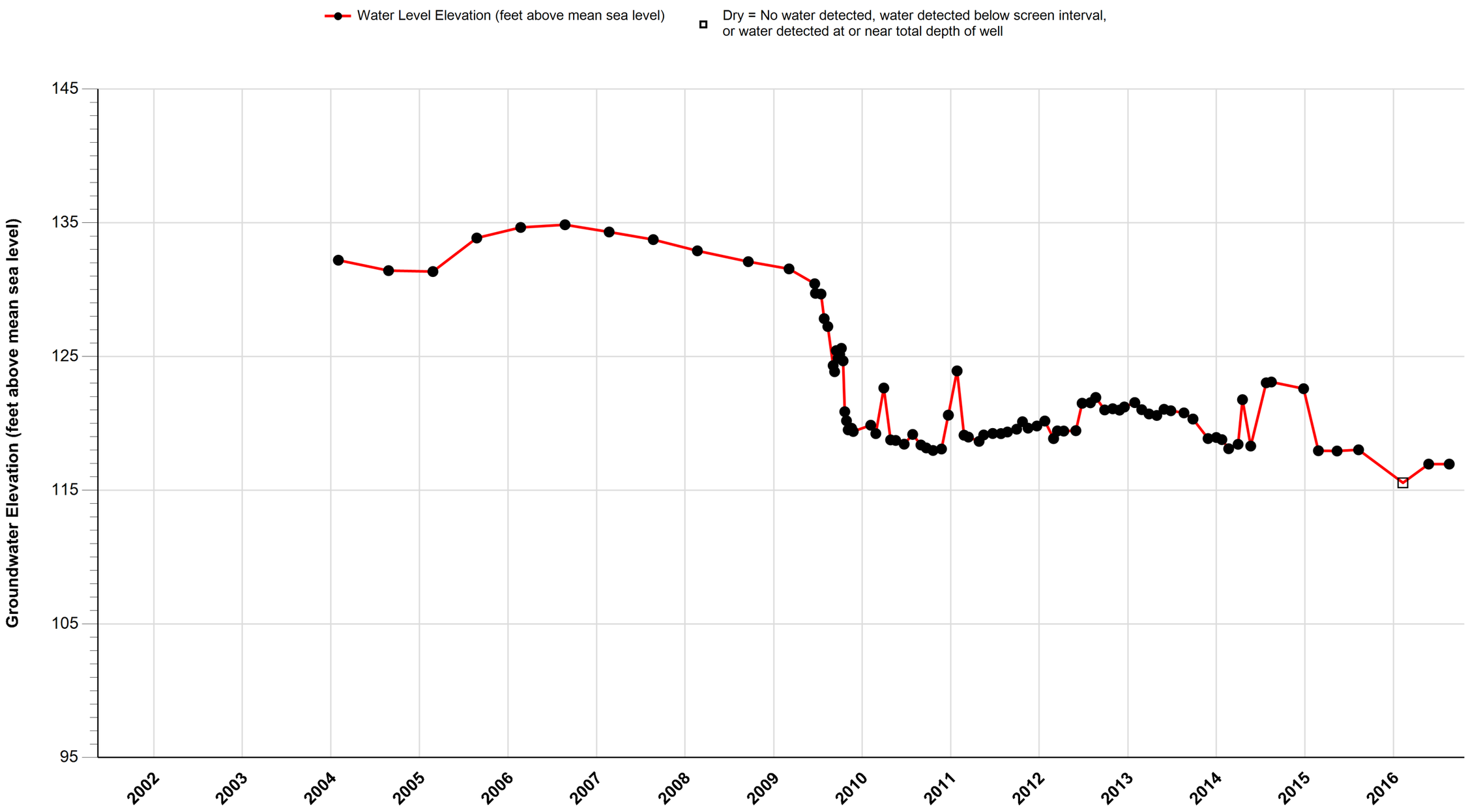
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW2



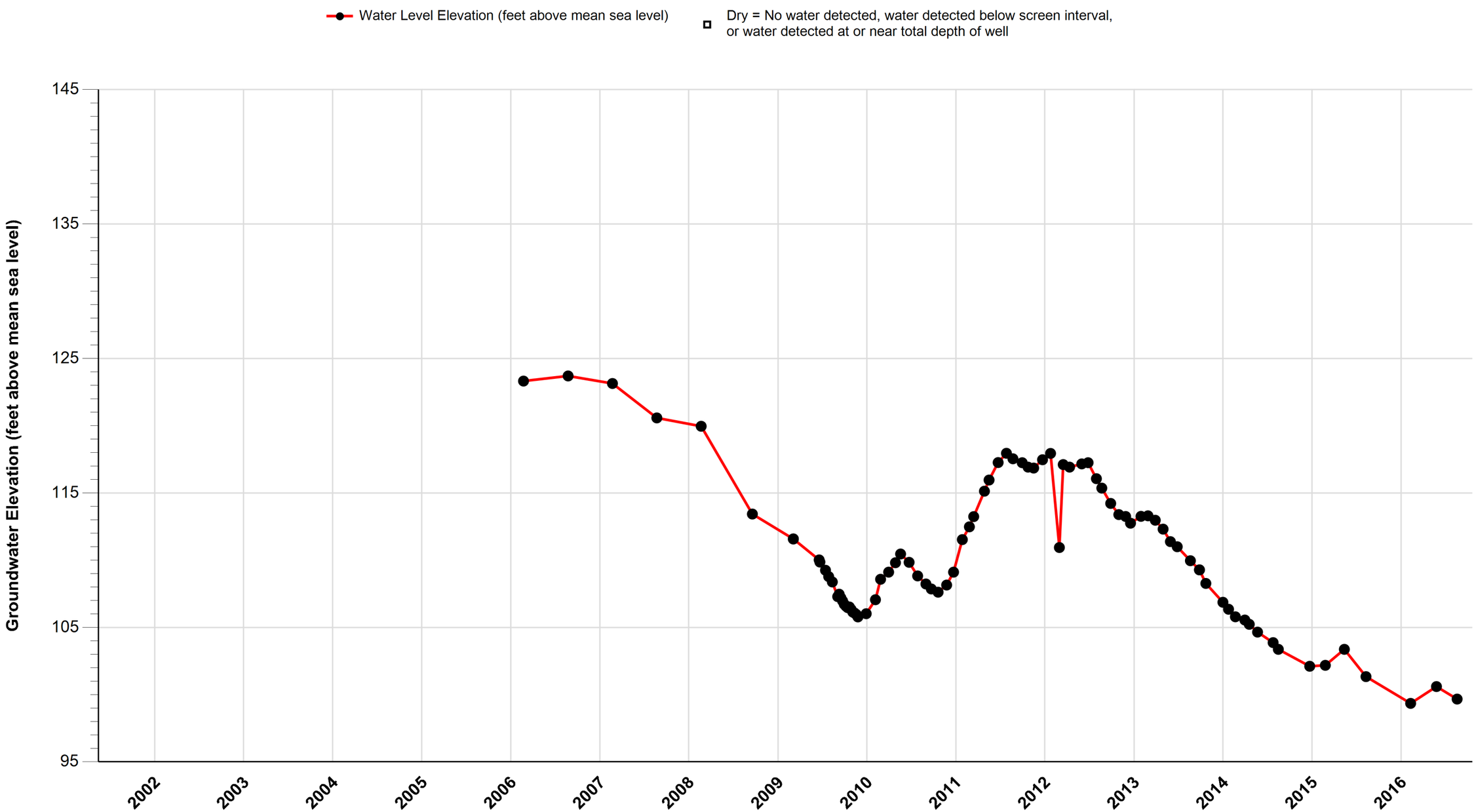
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW3A



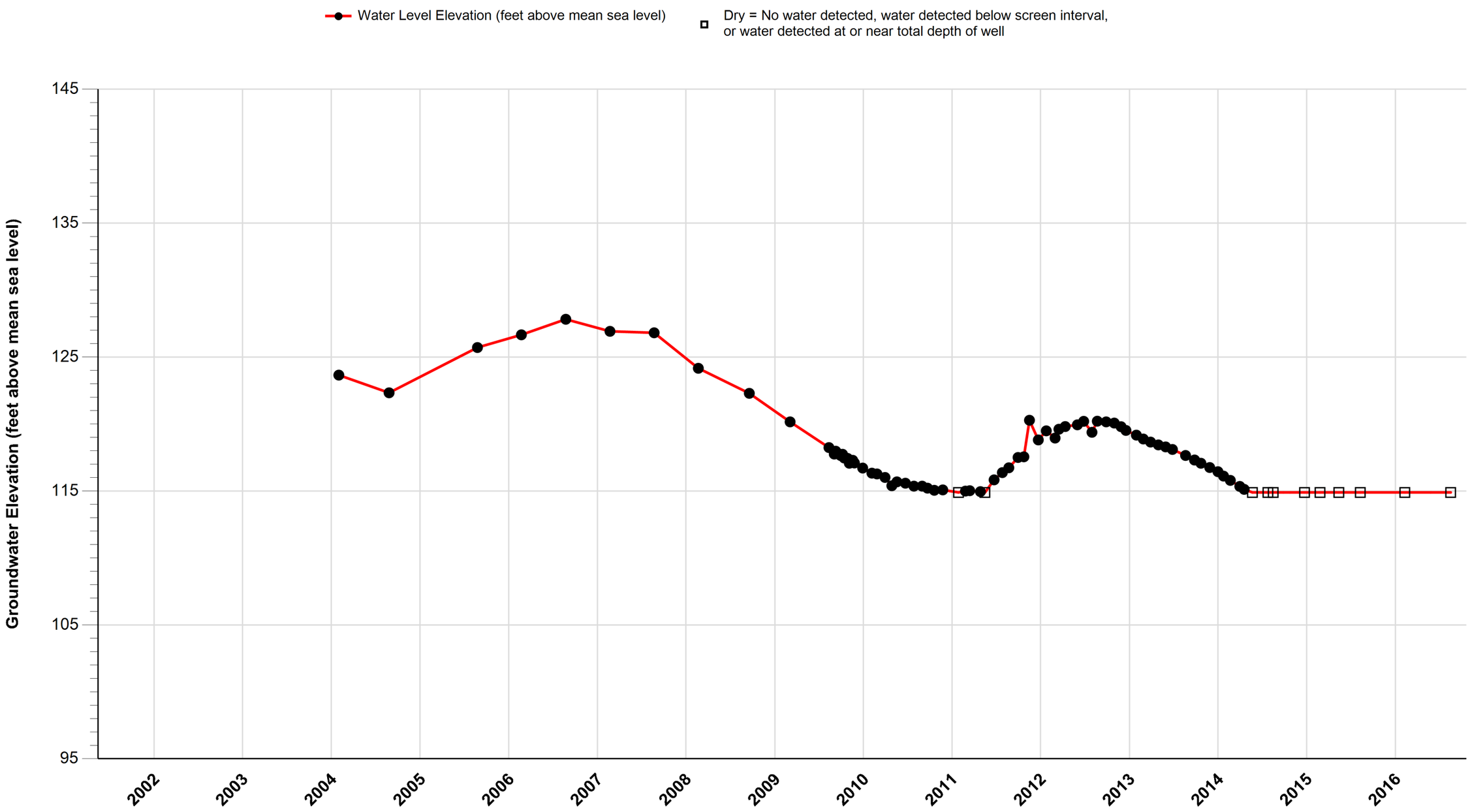
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW3B



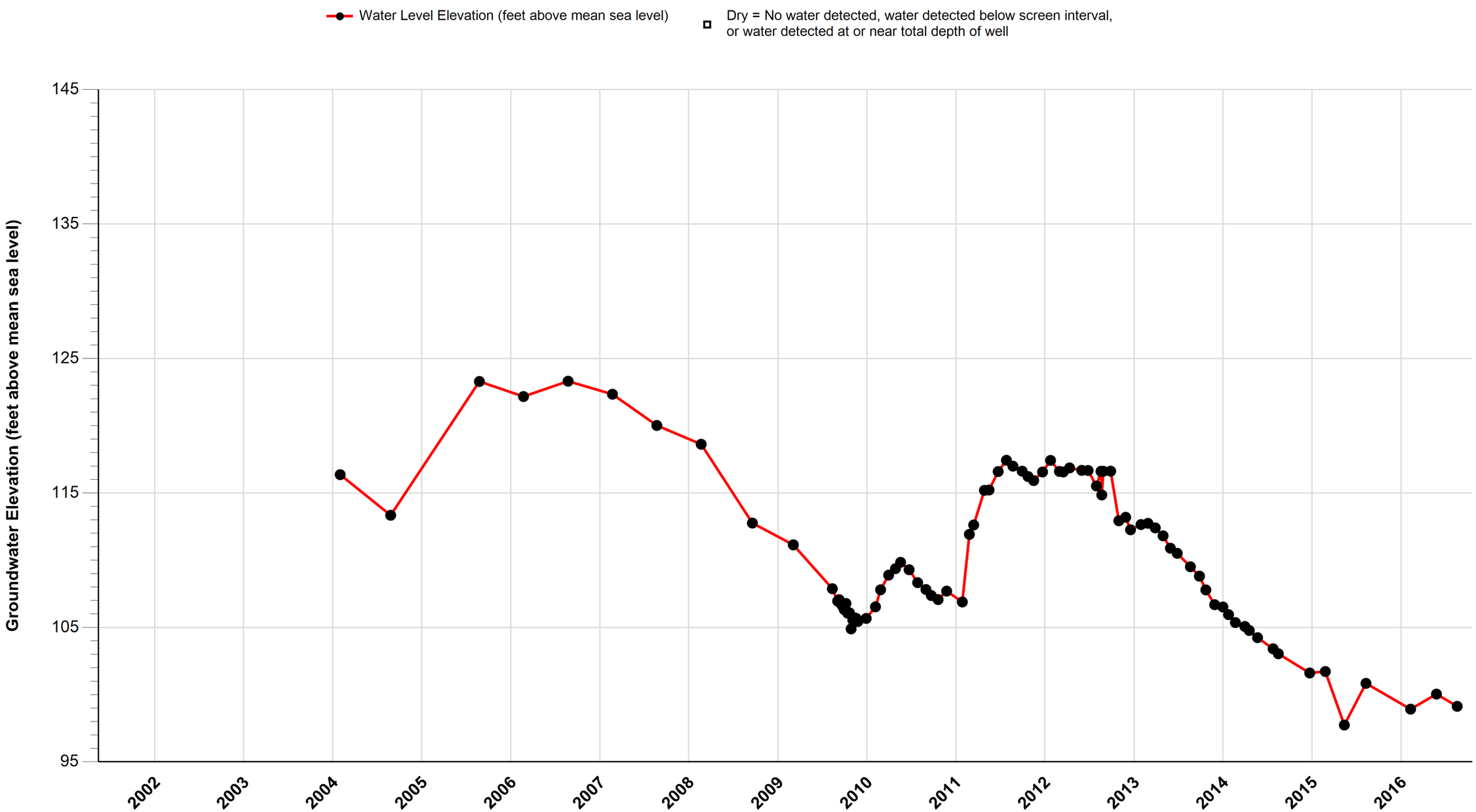
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW4A



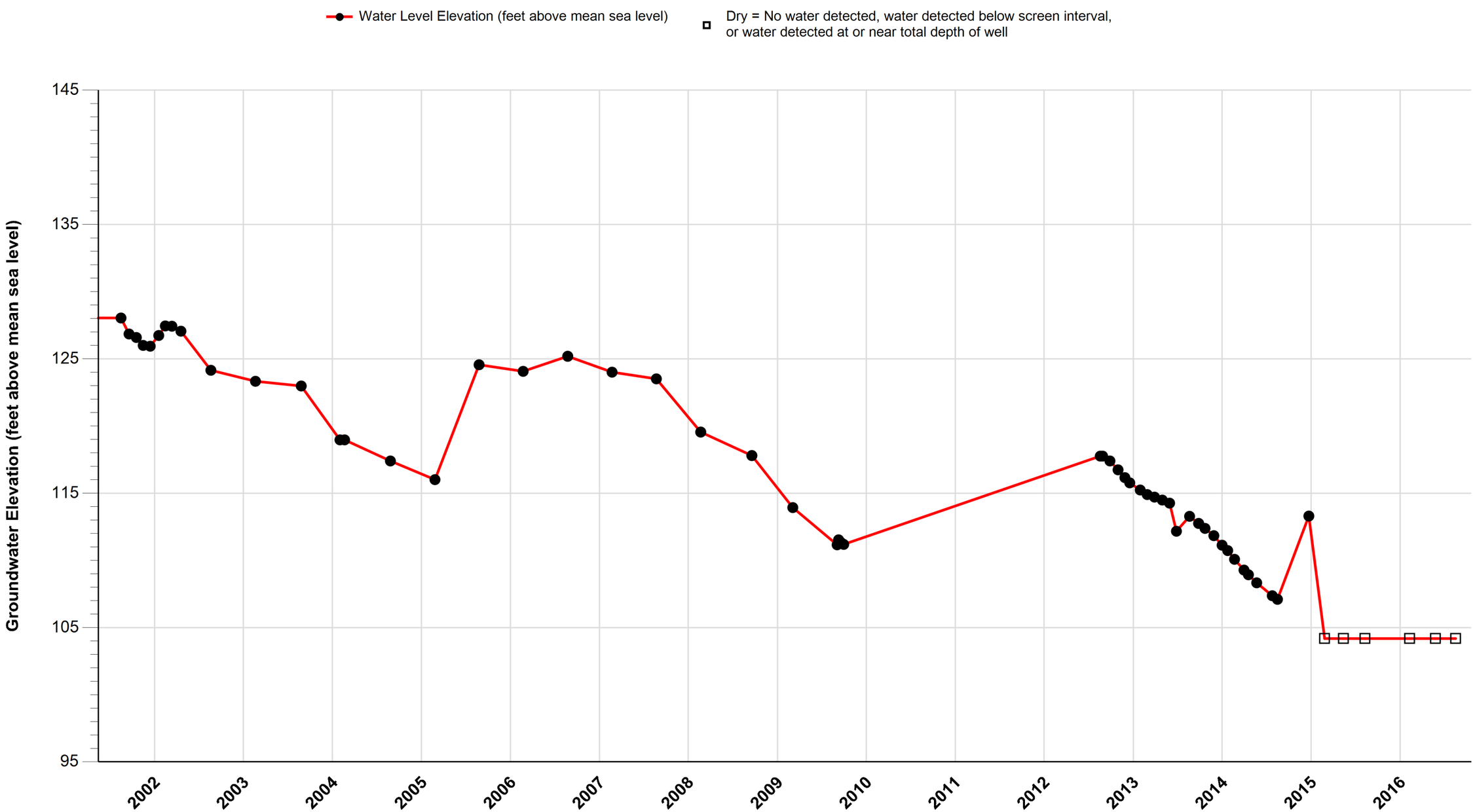
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW4B



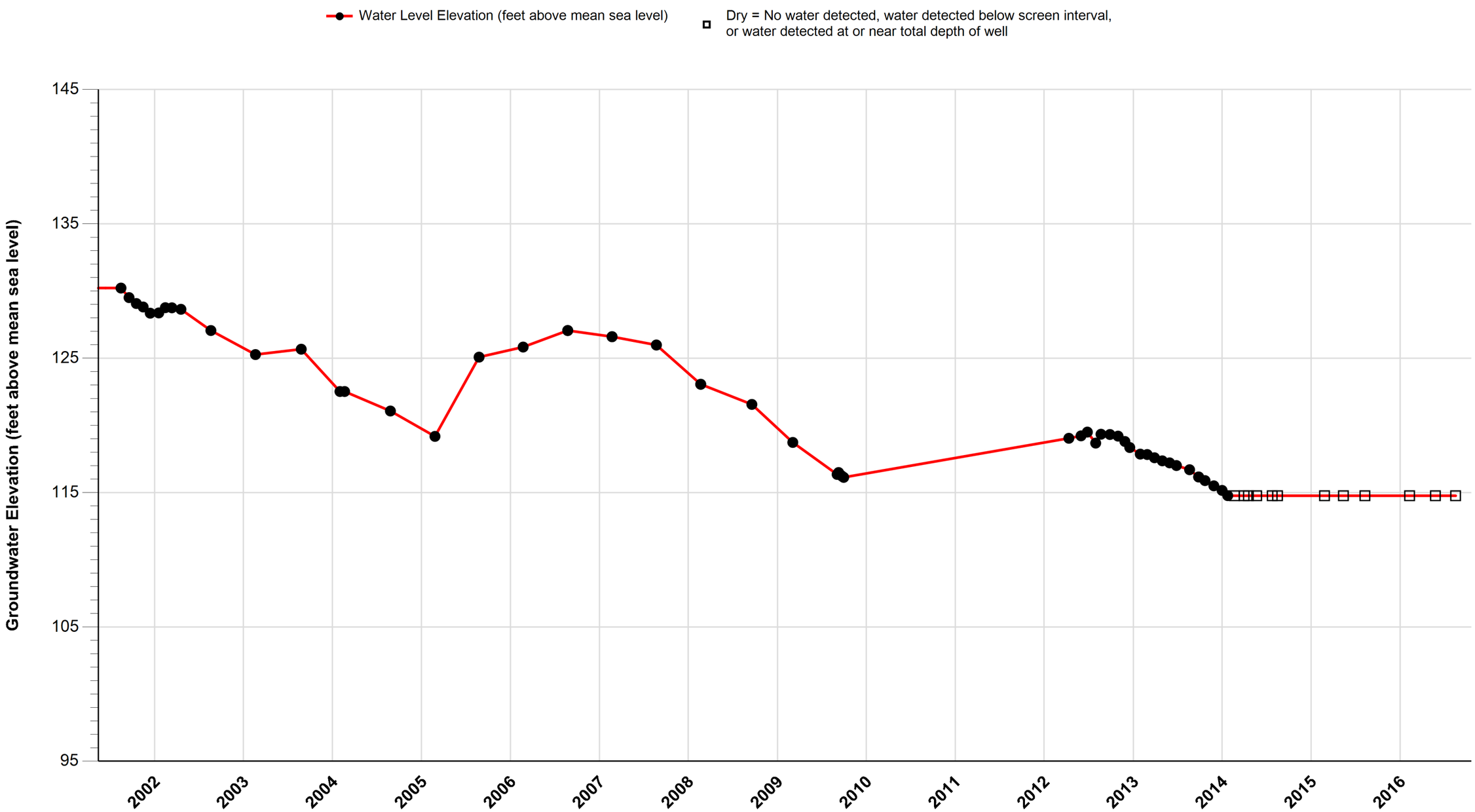
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW5



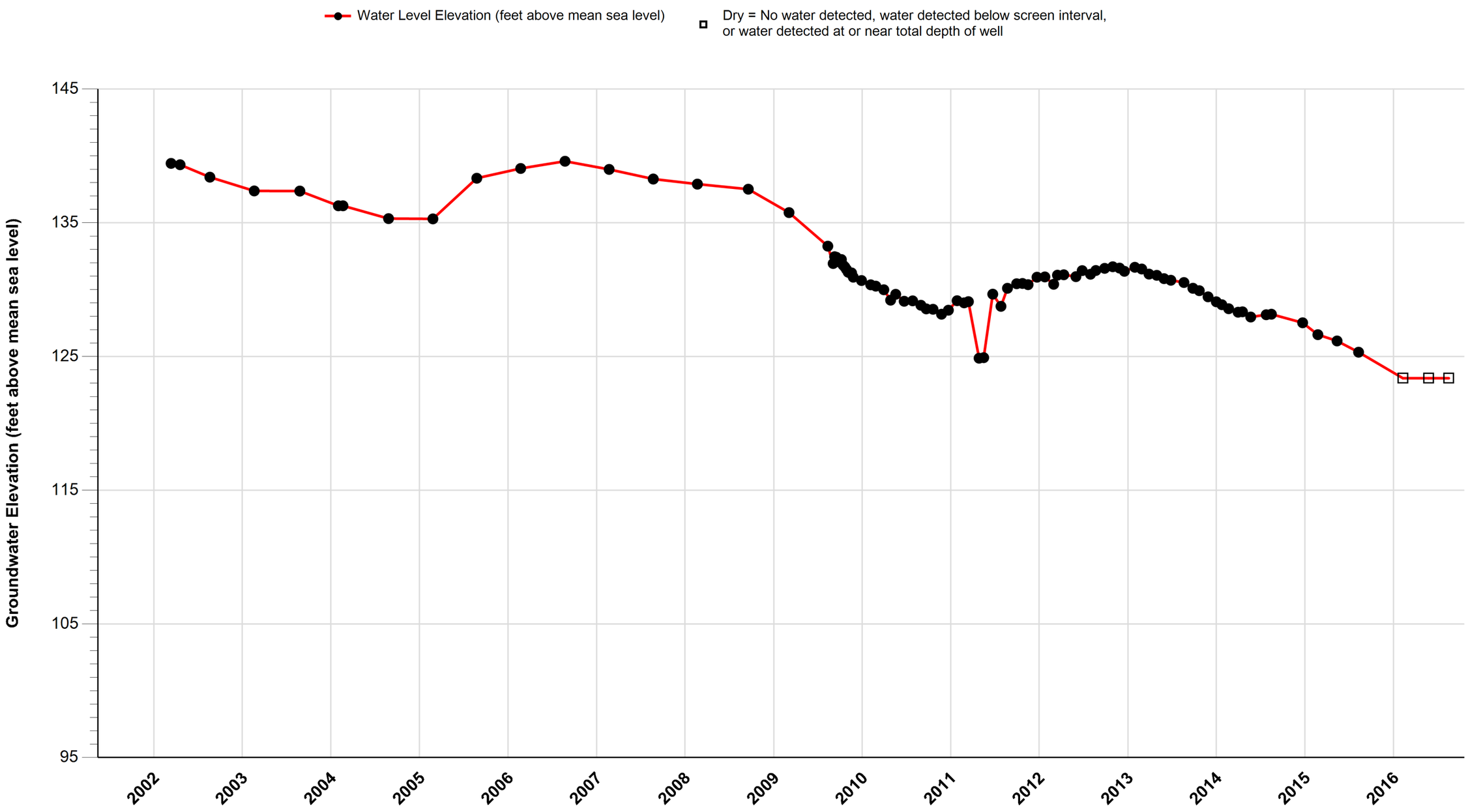
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW6



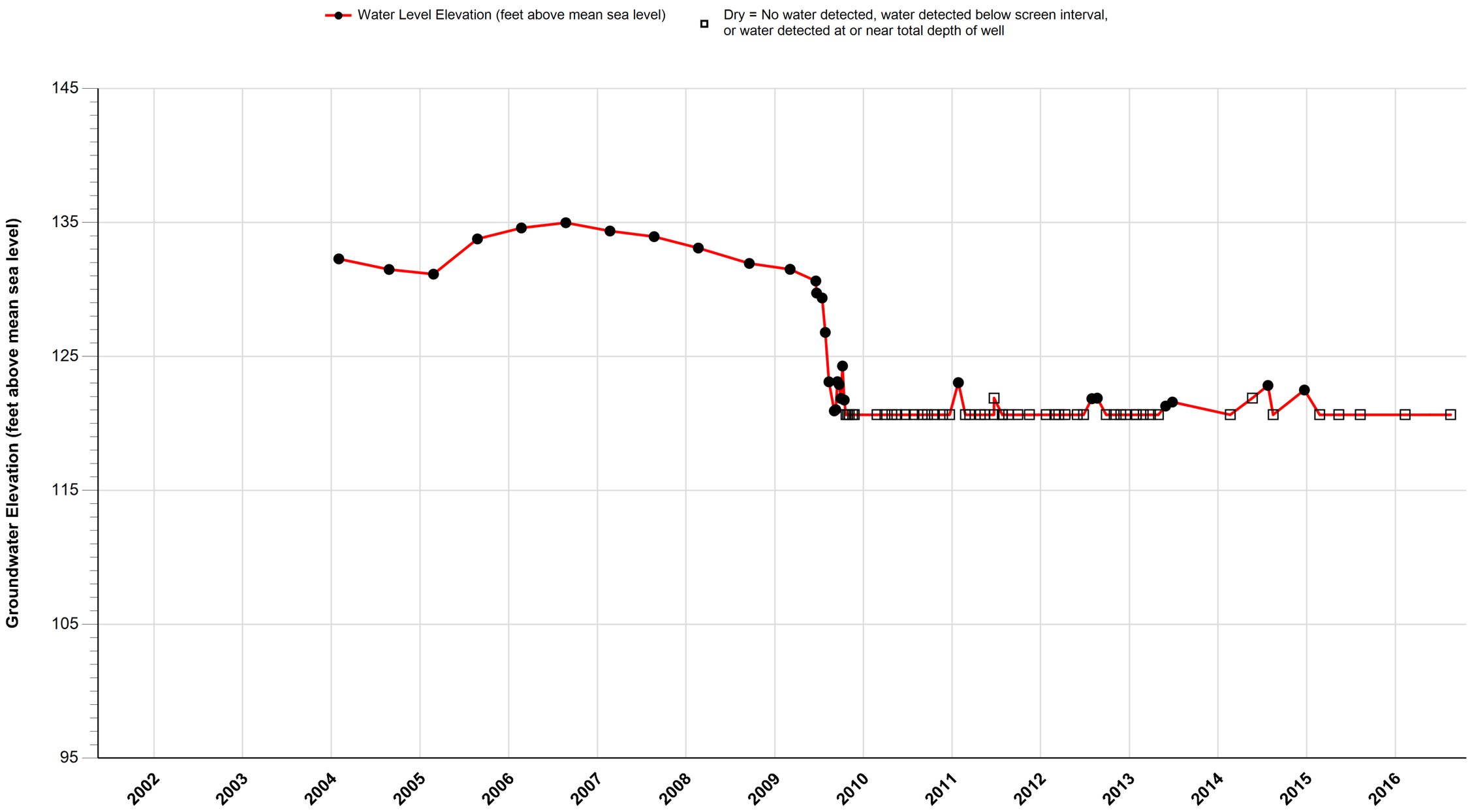
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW7



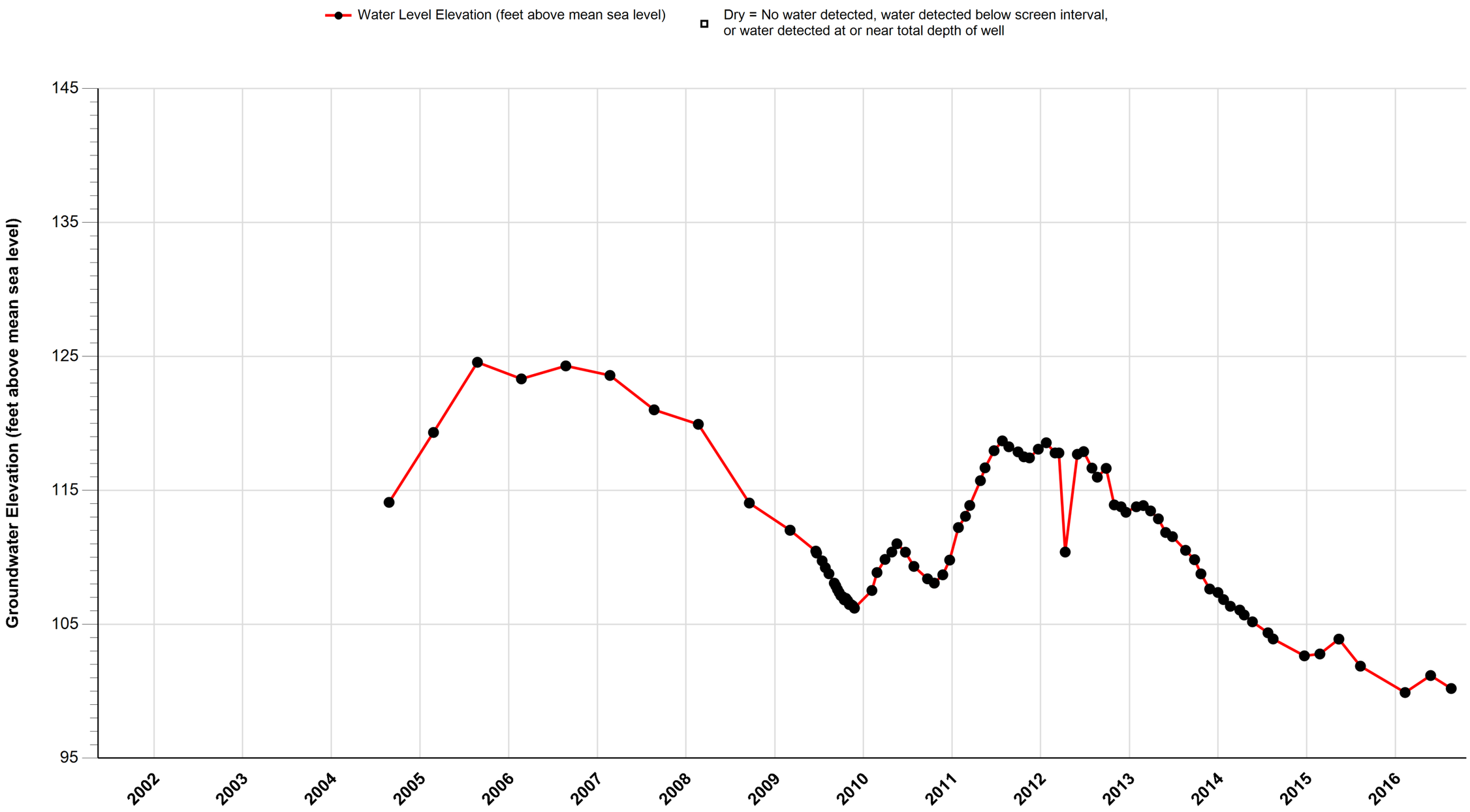
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW8A



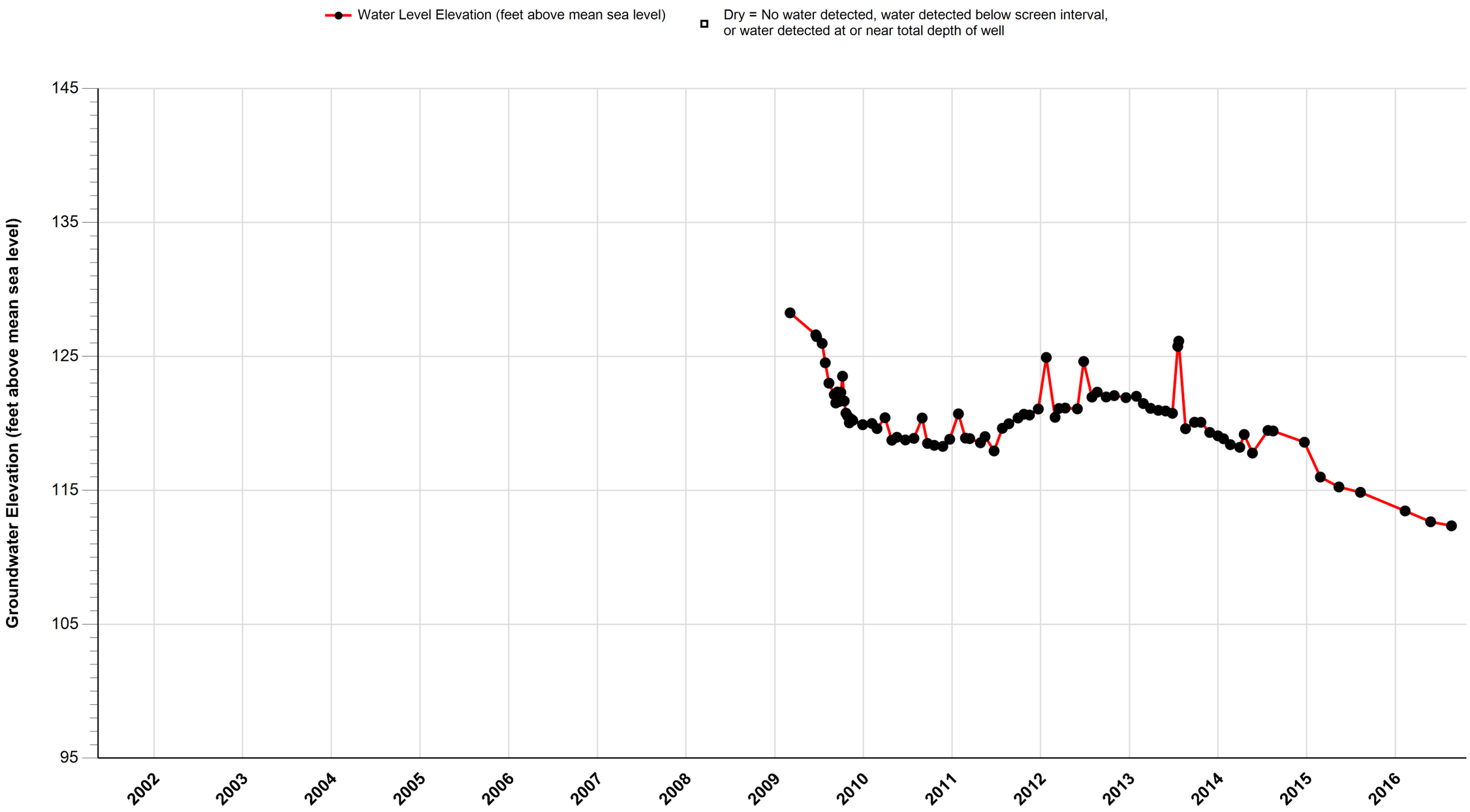
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW8B



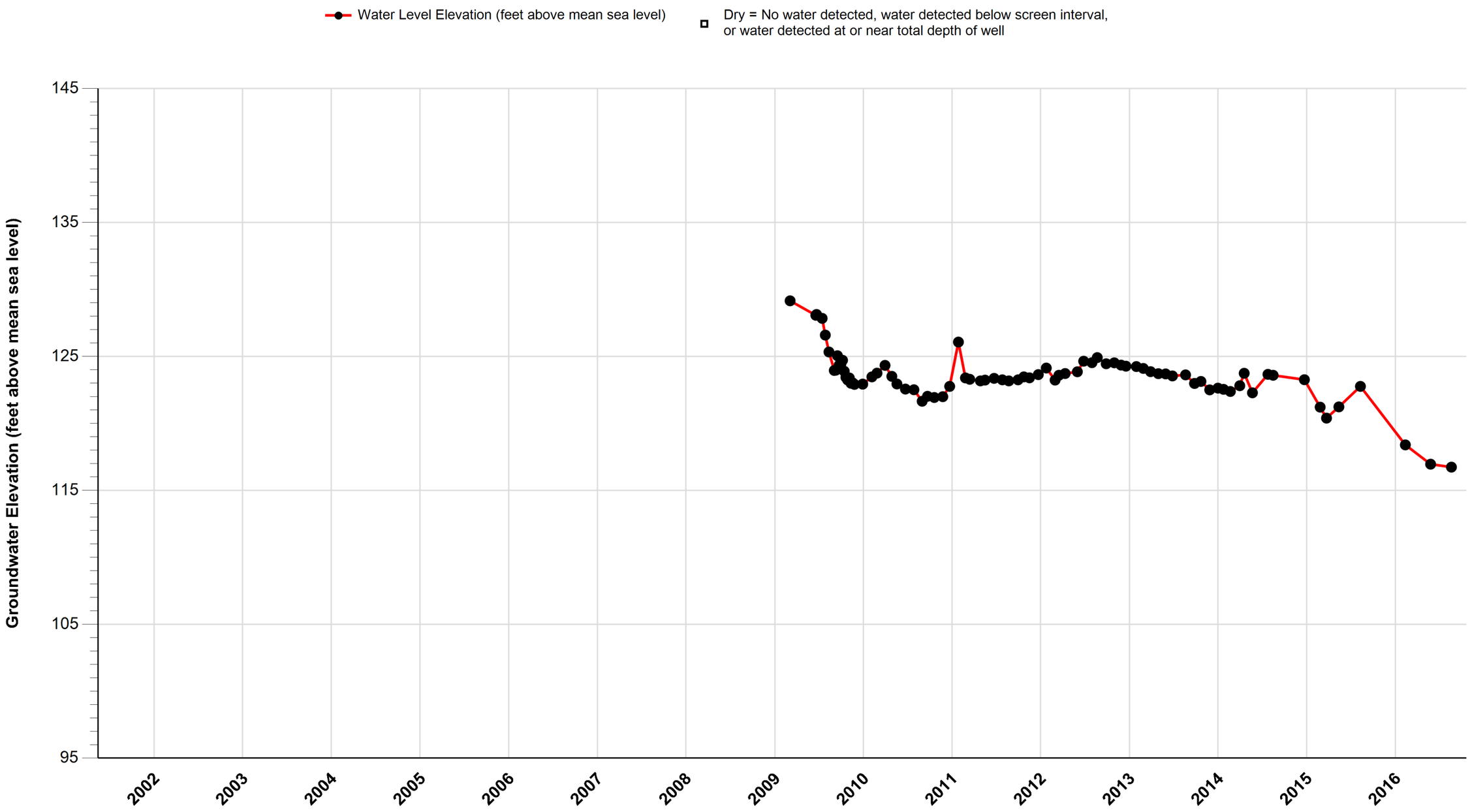
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW9



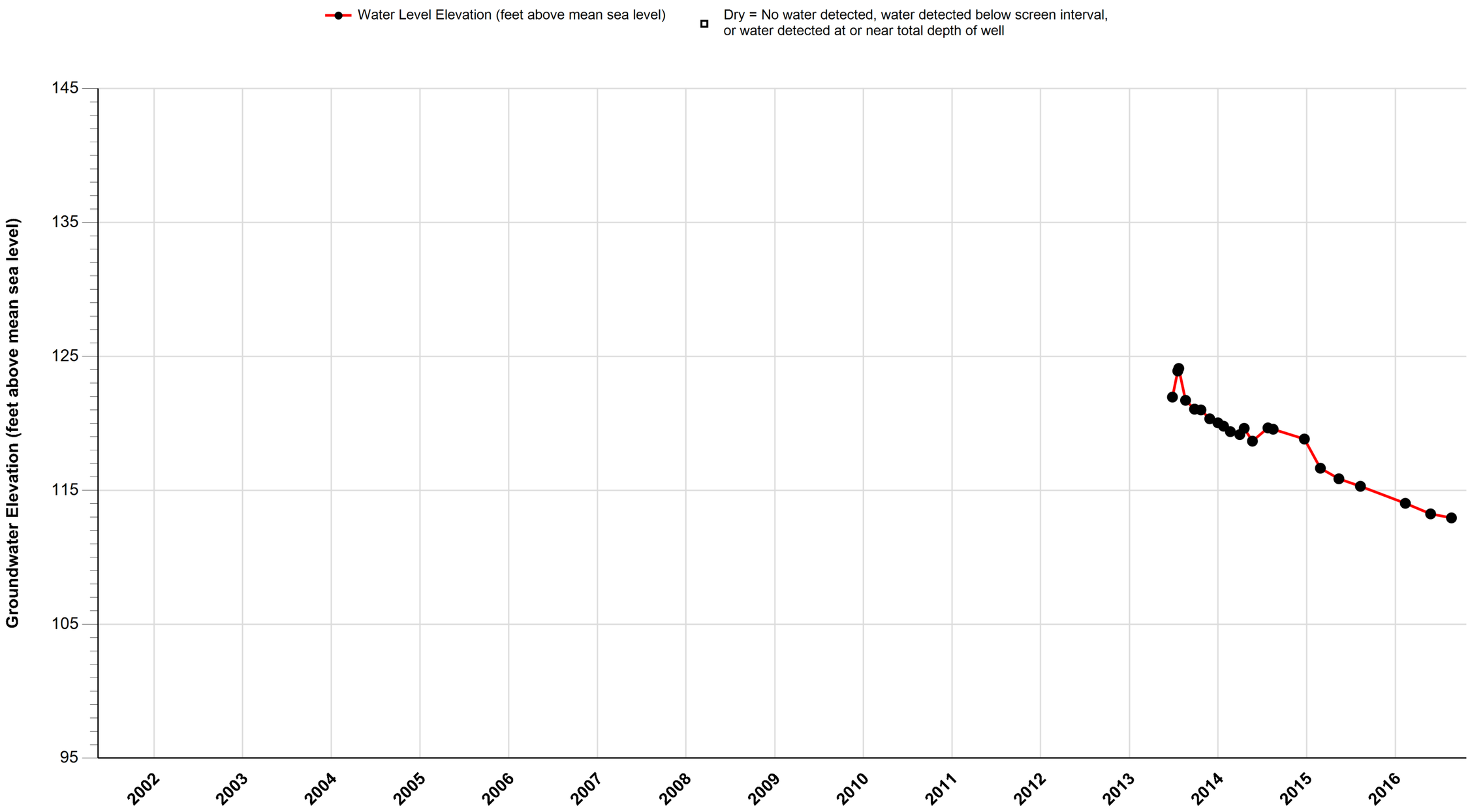
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW10



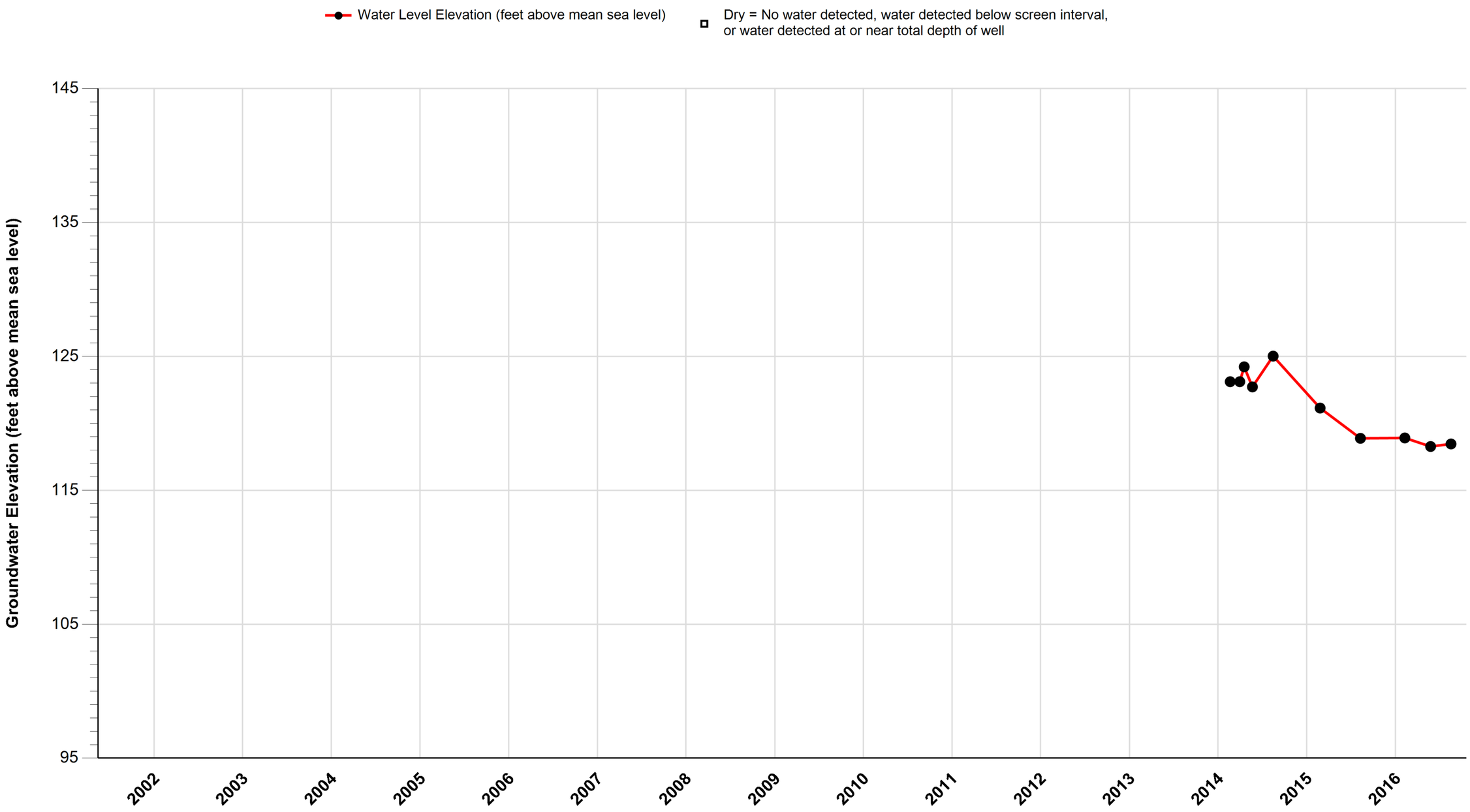
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW11



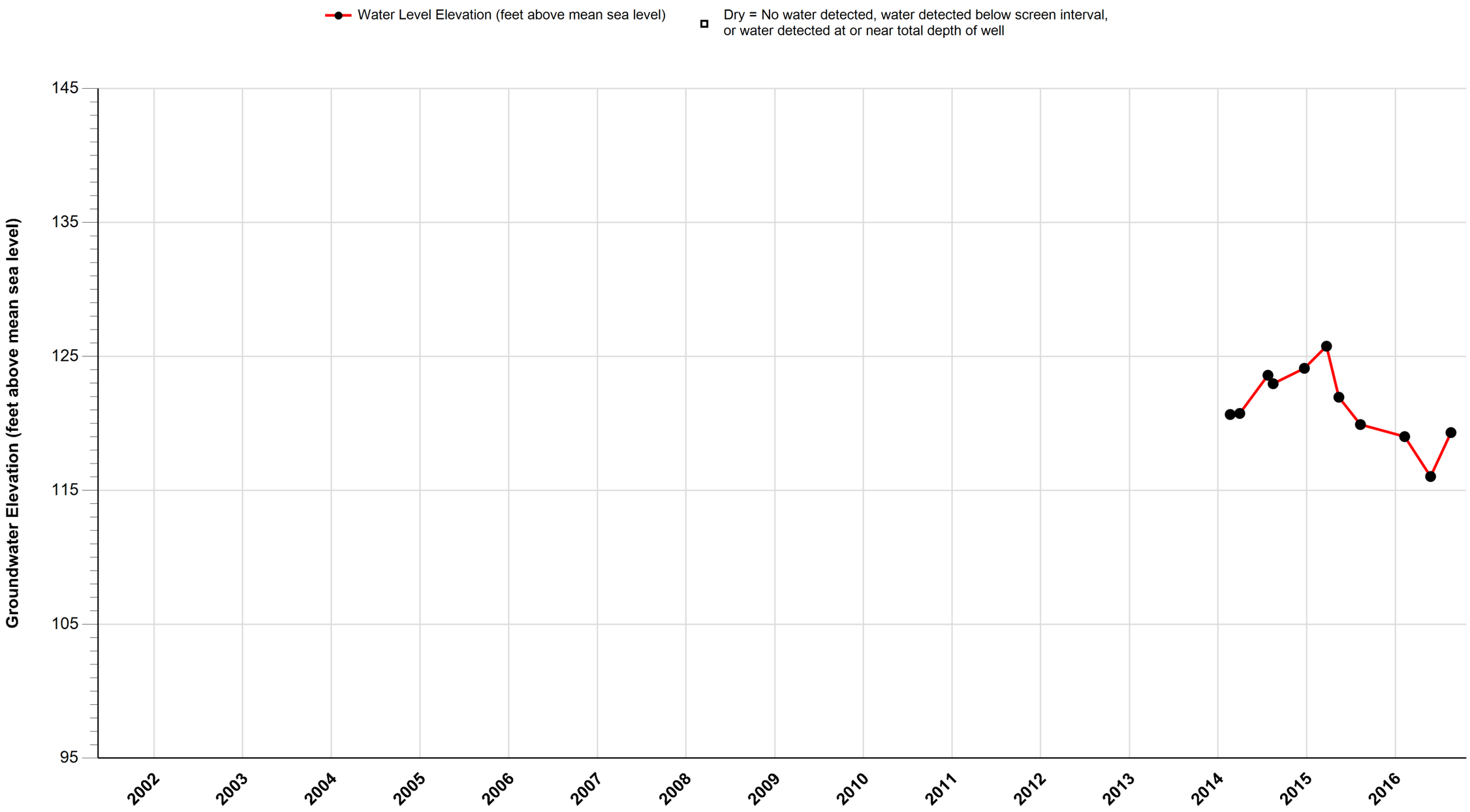
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

OW12



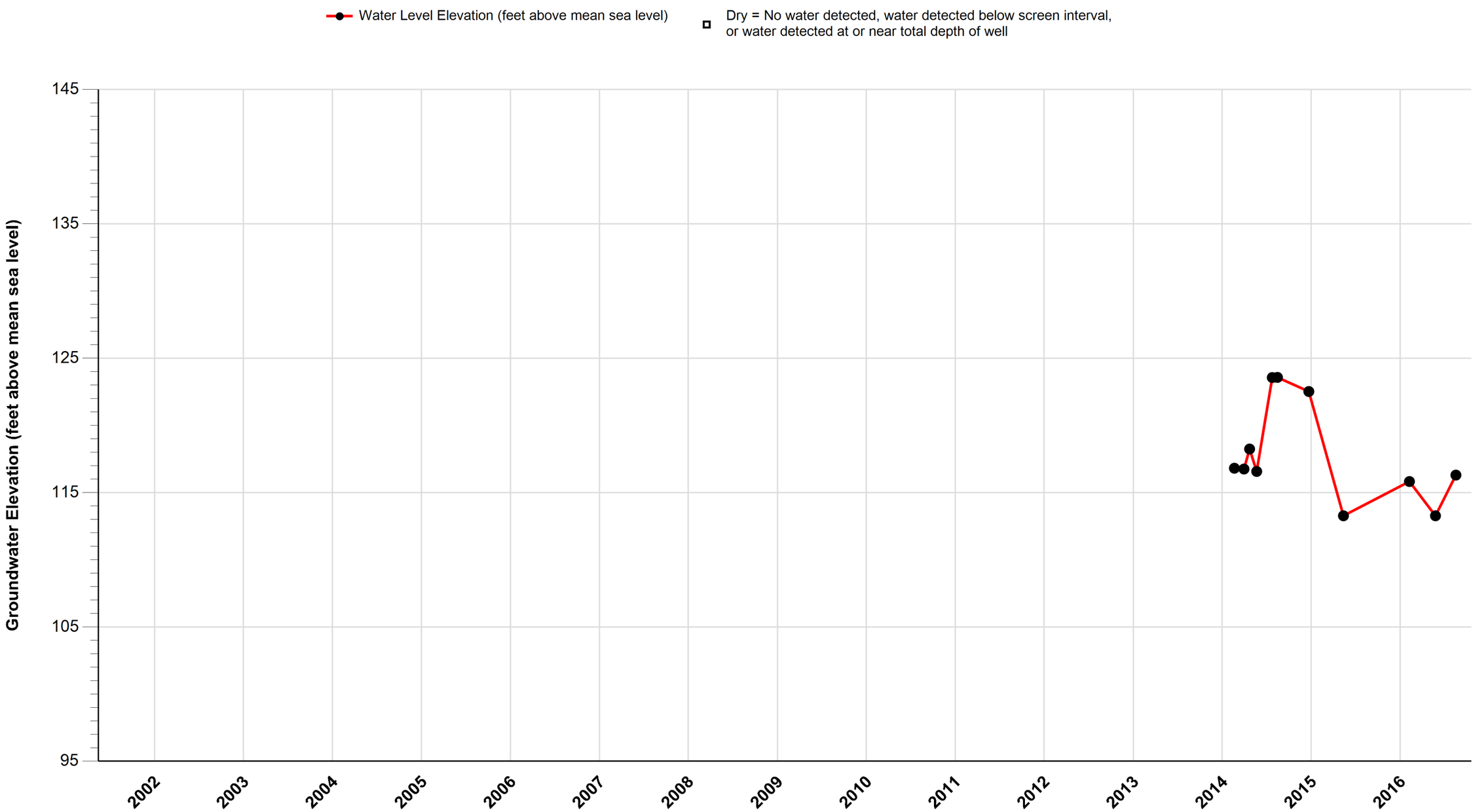
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

DPE-3



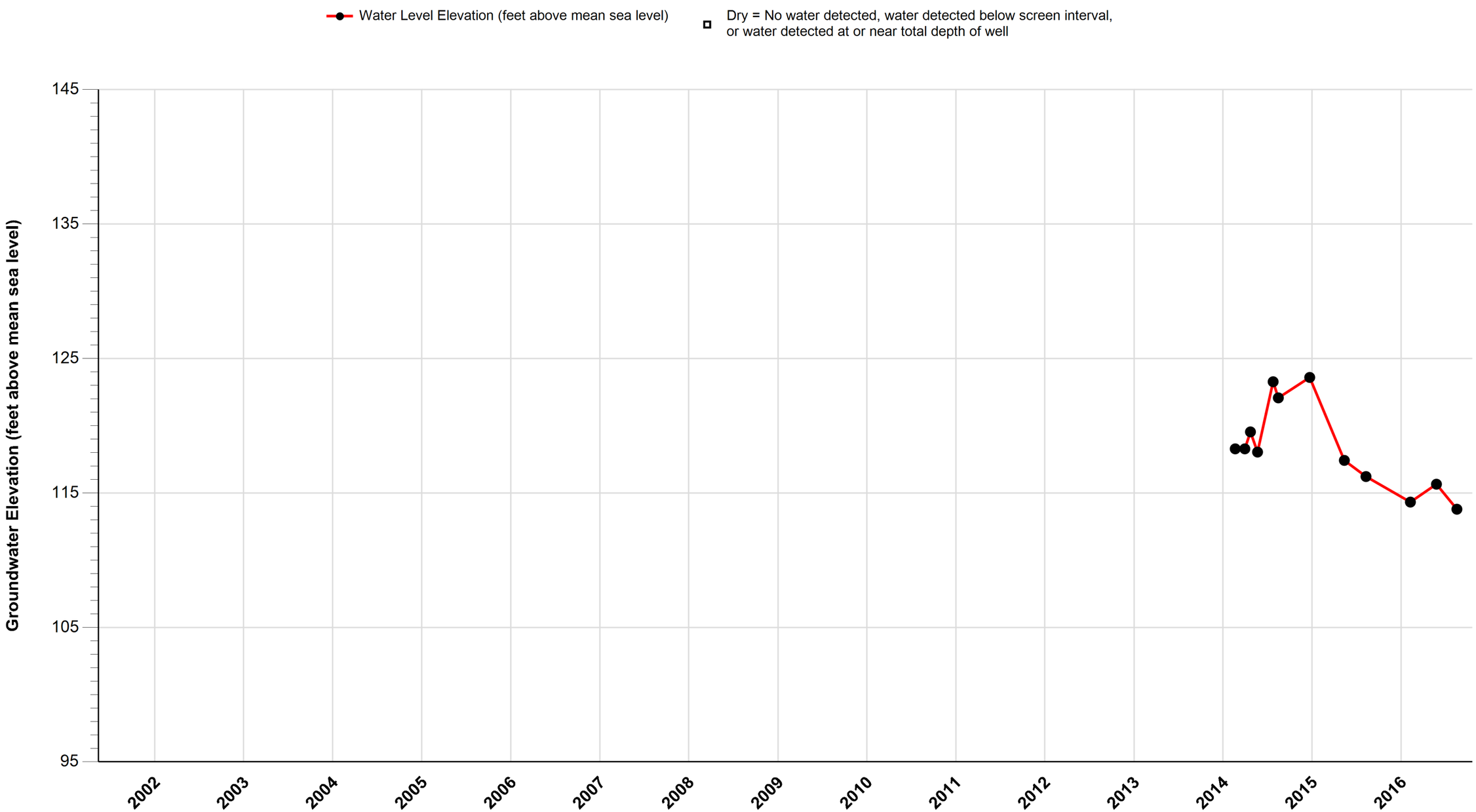
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

DPE-4



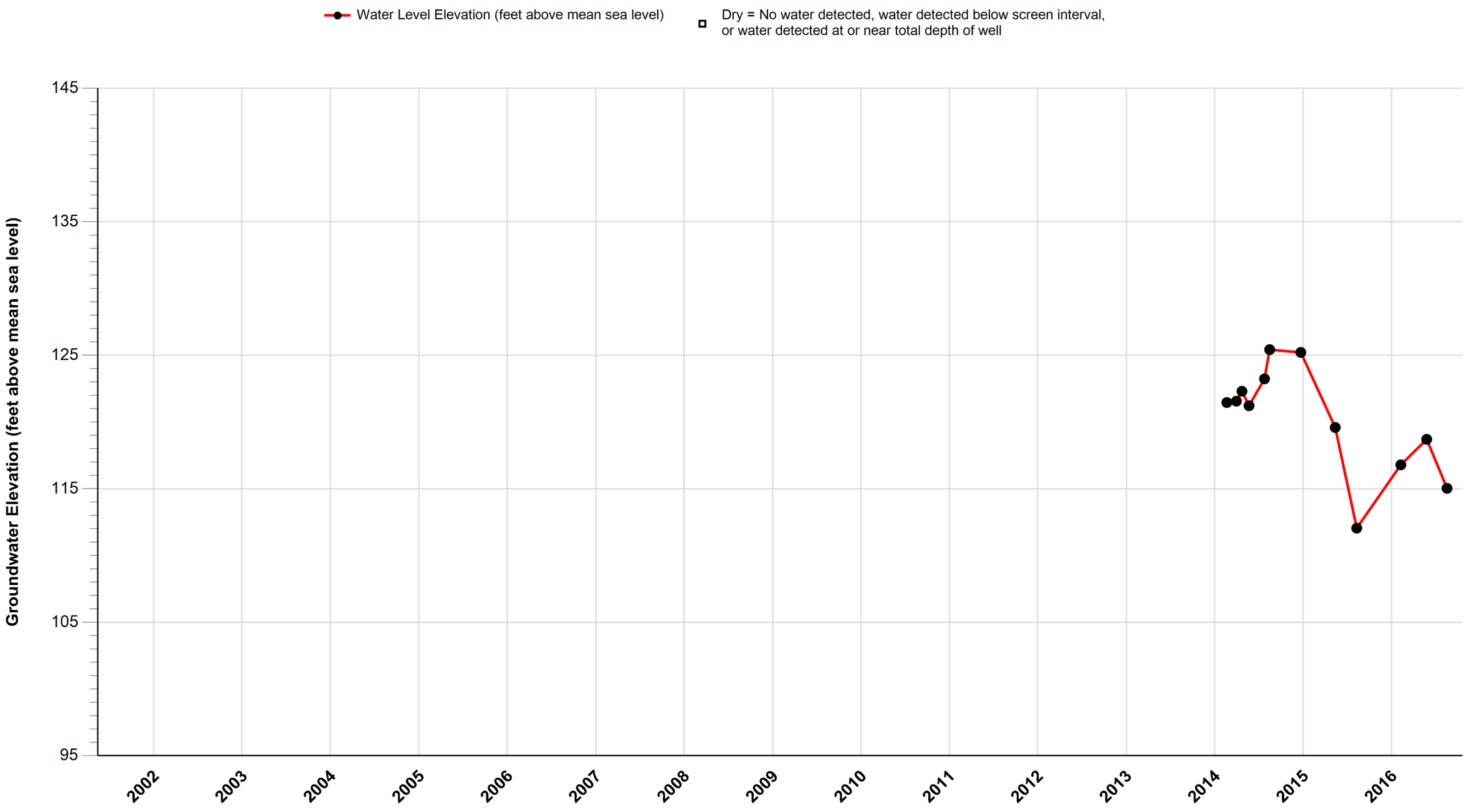
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

DPE-5



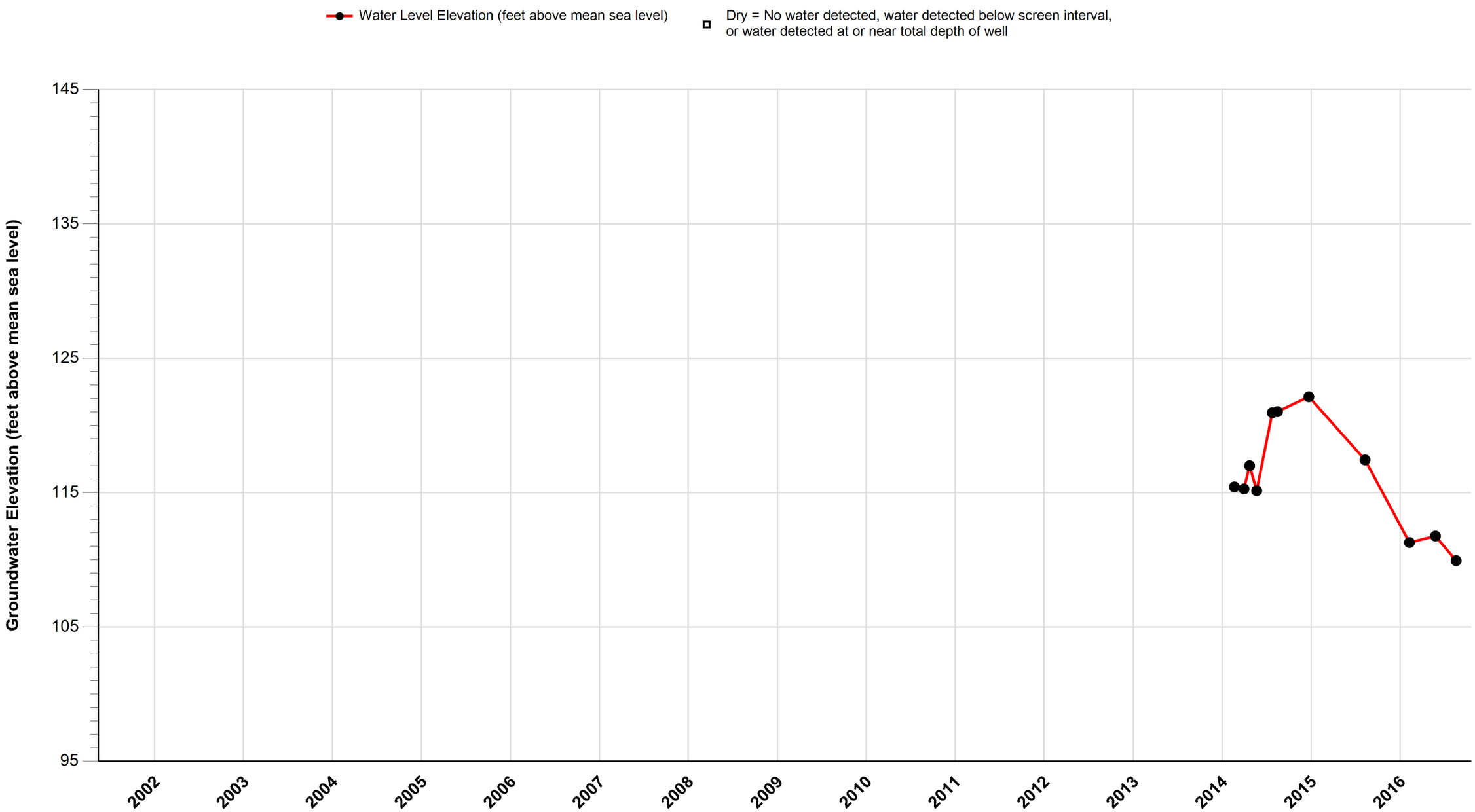
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

DPE-8



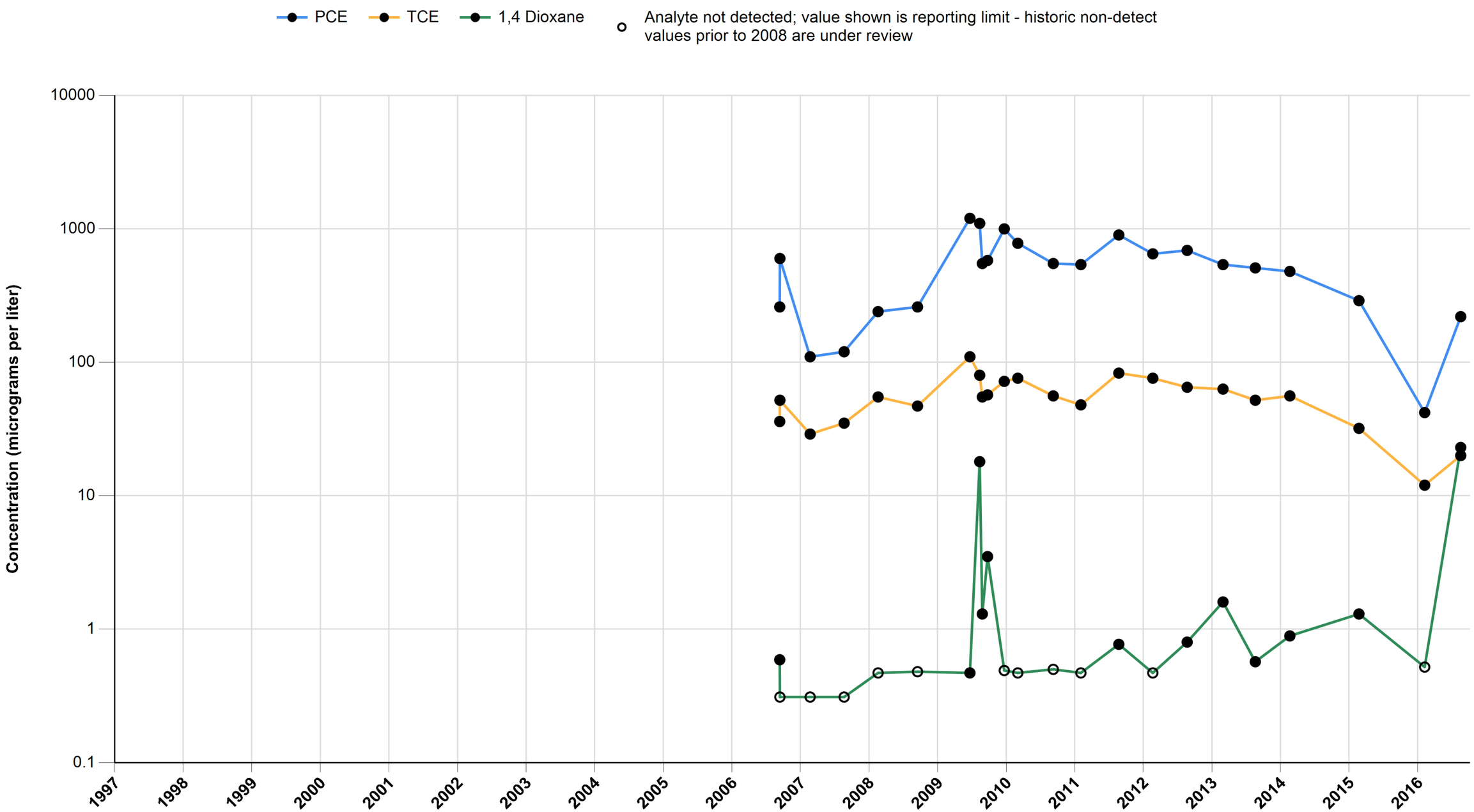
Attachment D.1
Omega Chemical Superfund Site
Historic Groundwater Elevations

DPE-9



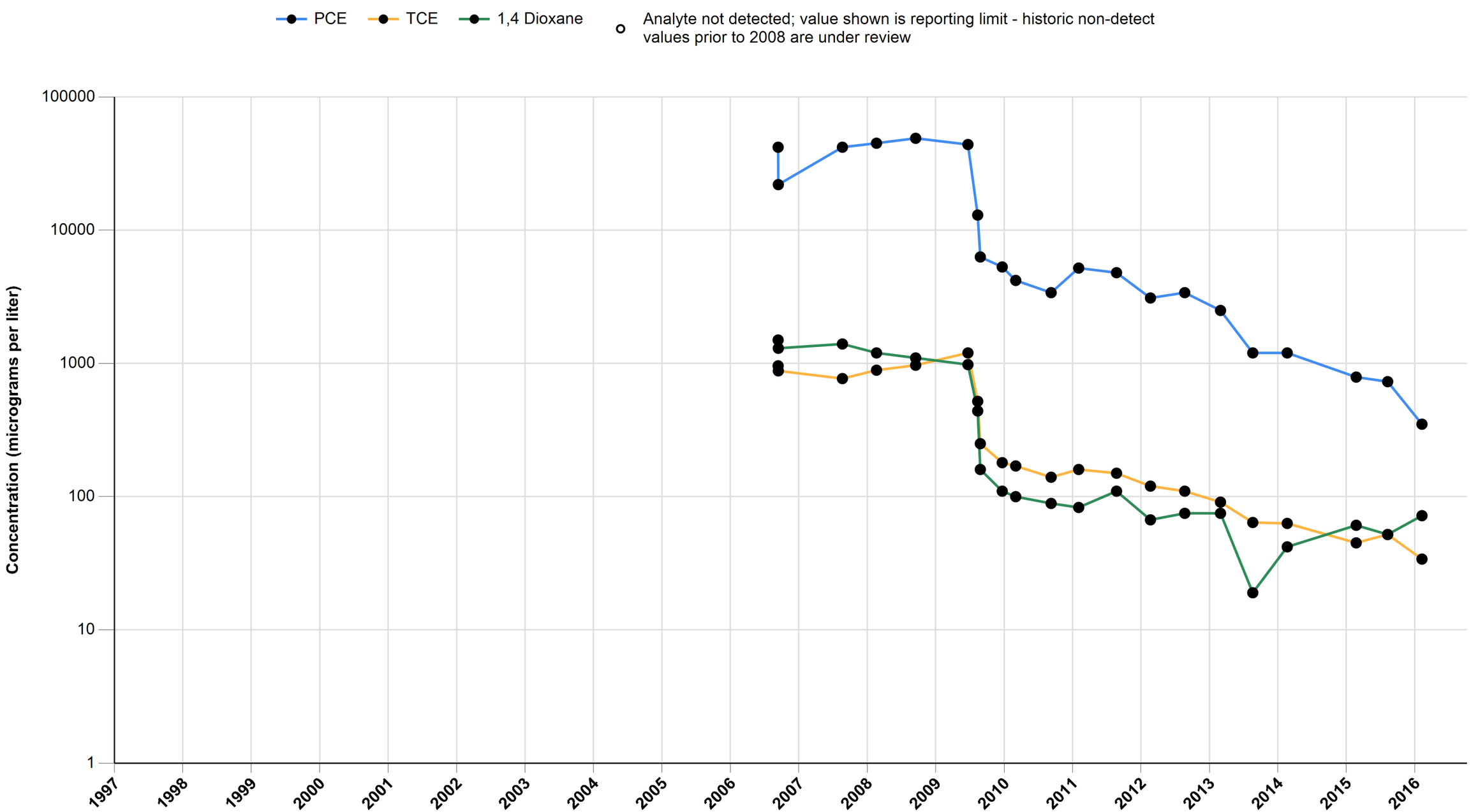
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-1



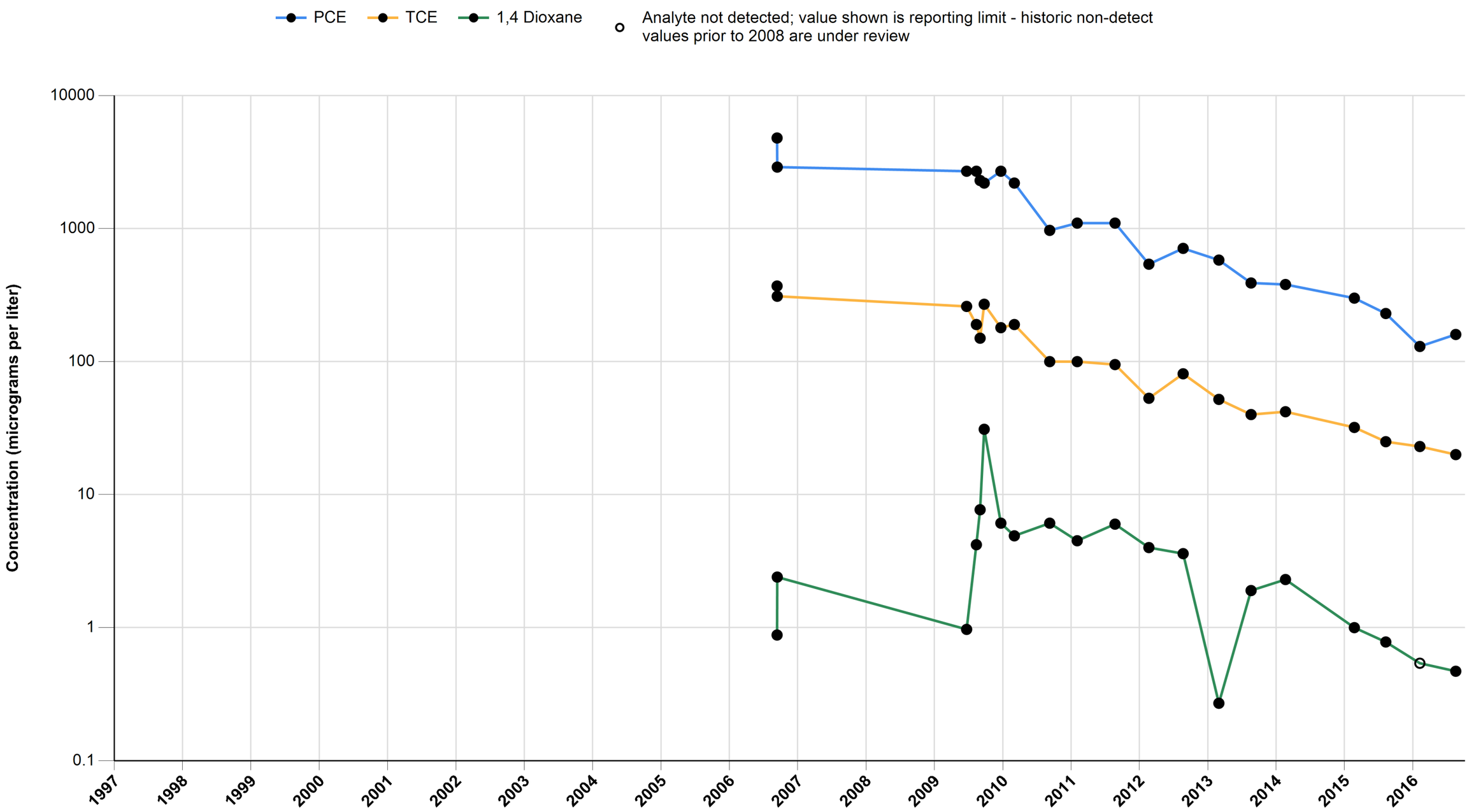
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-2



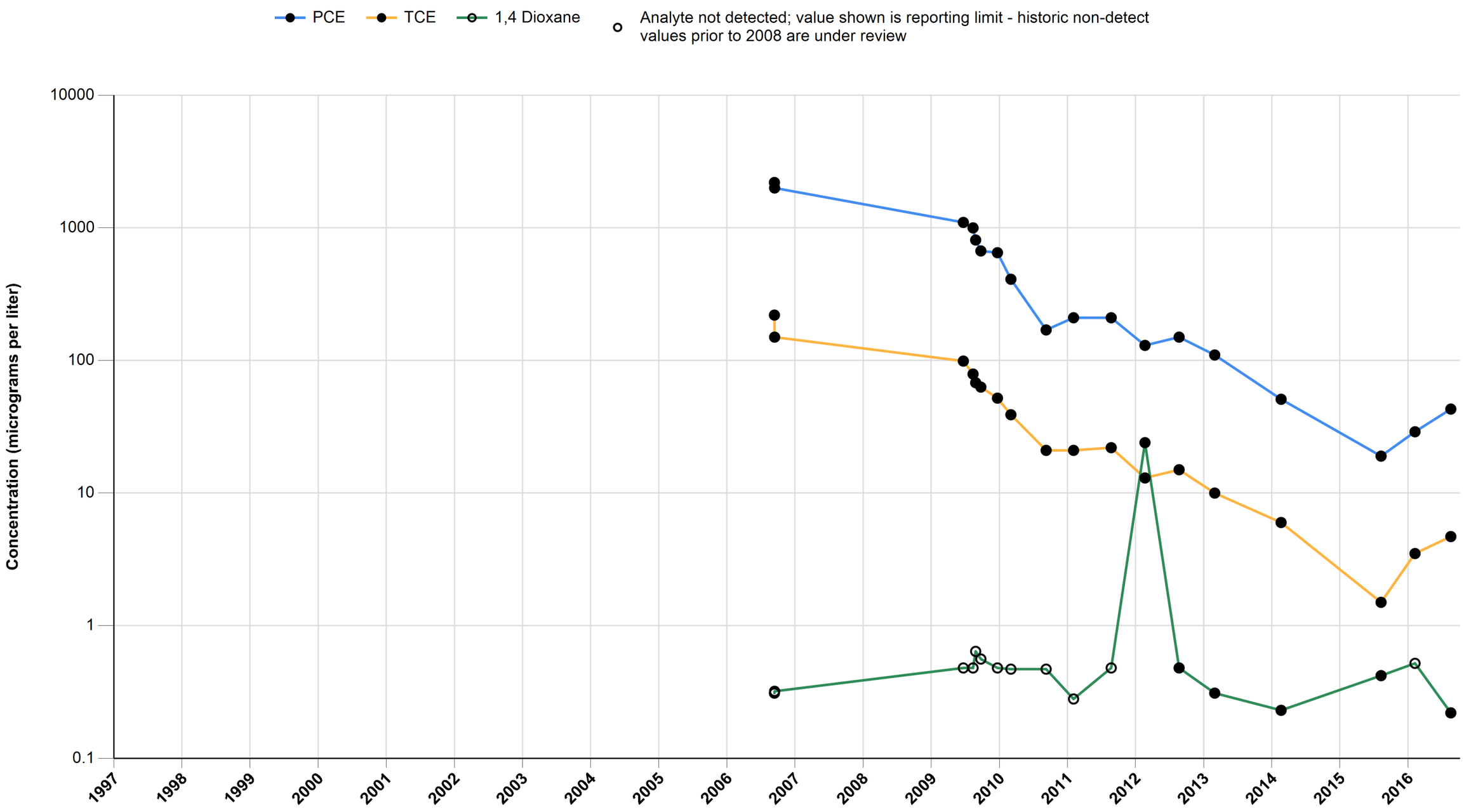
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-3



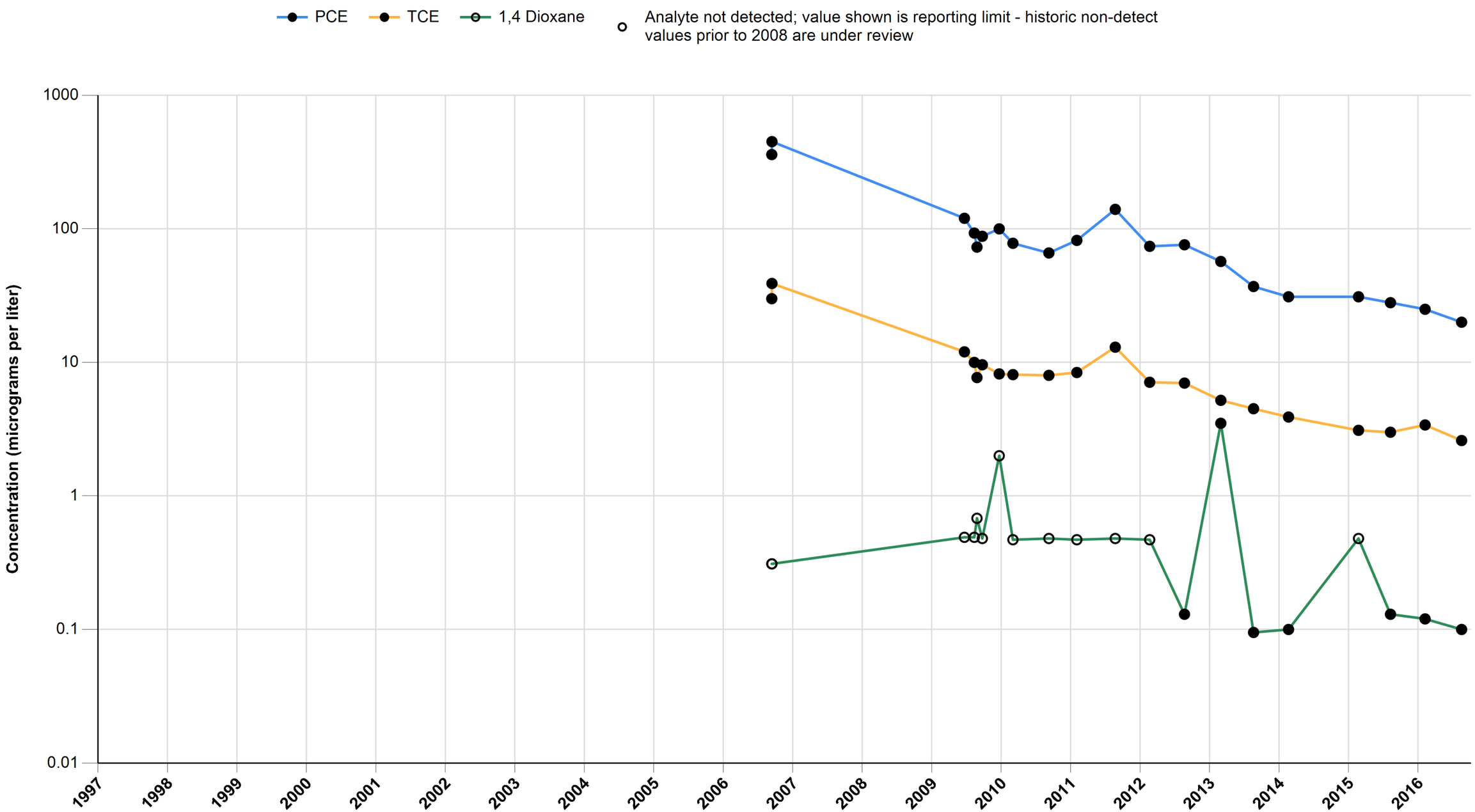
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-4



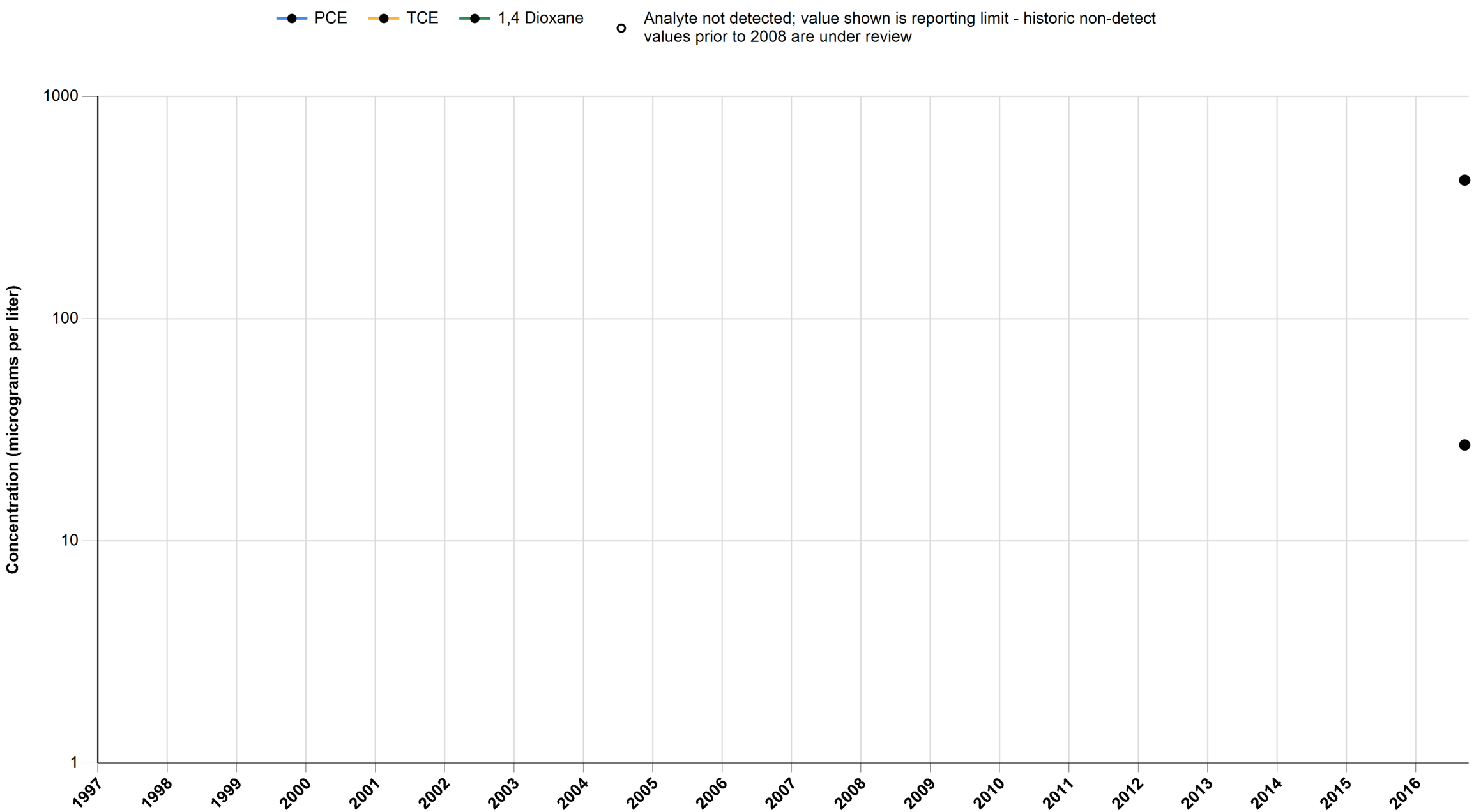
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

EW-5



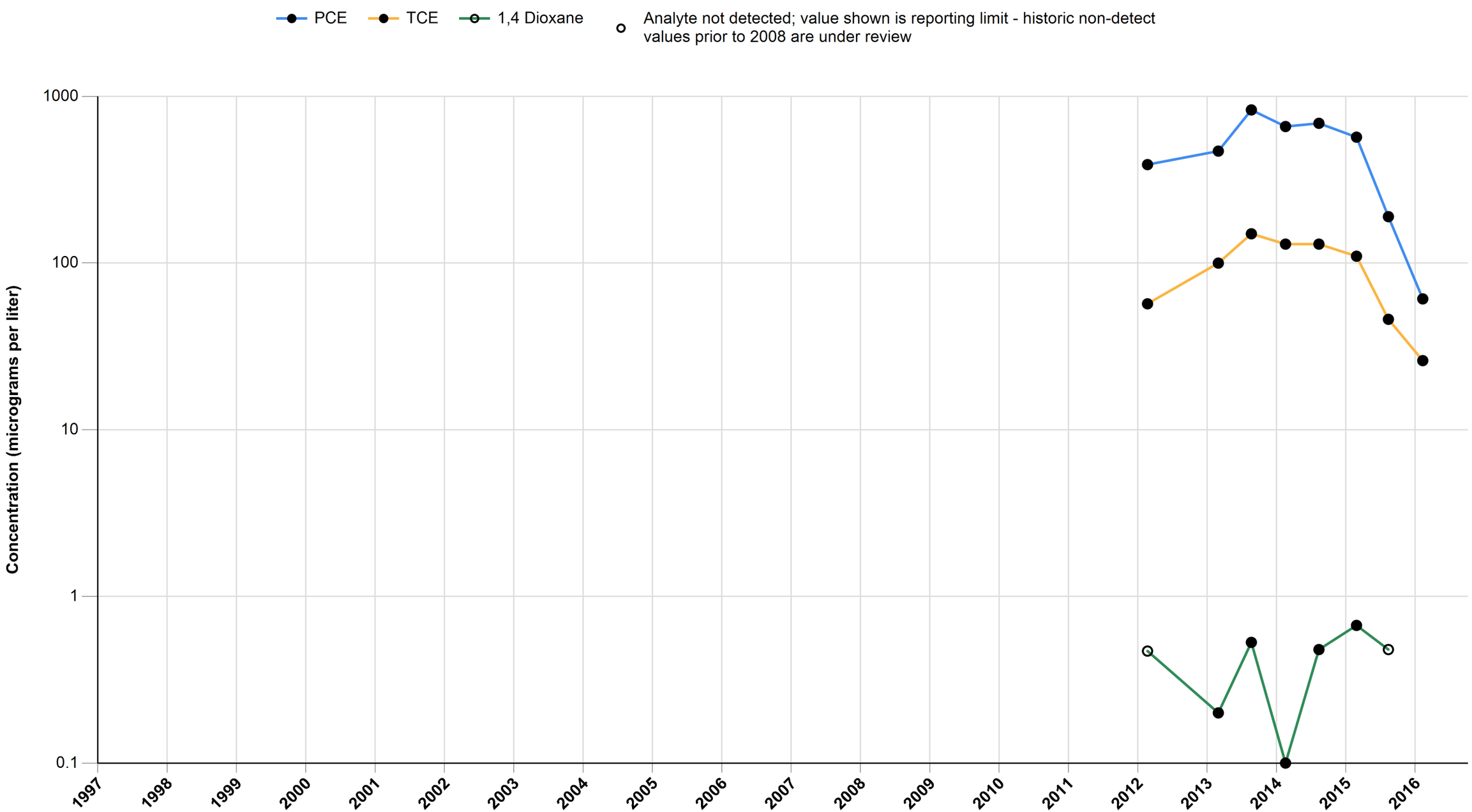
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-1



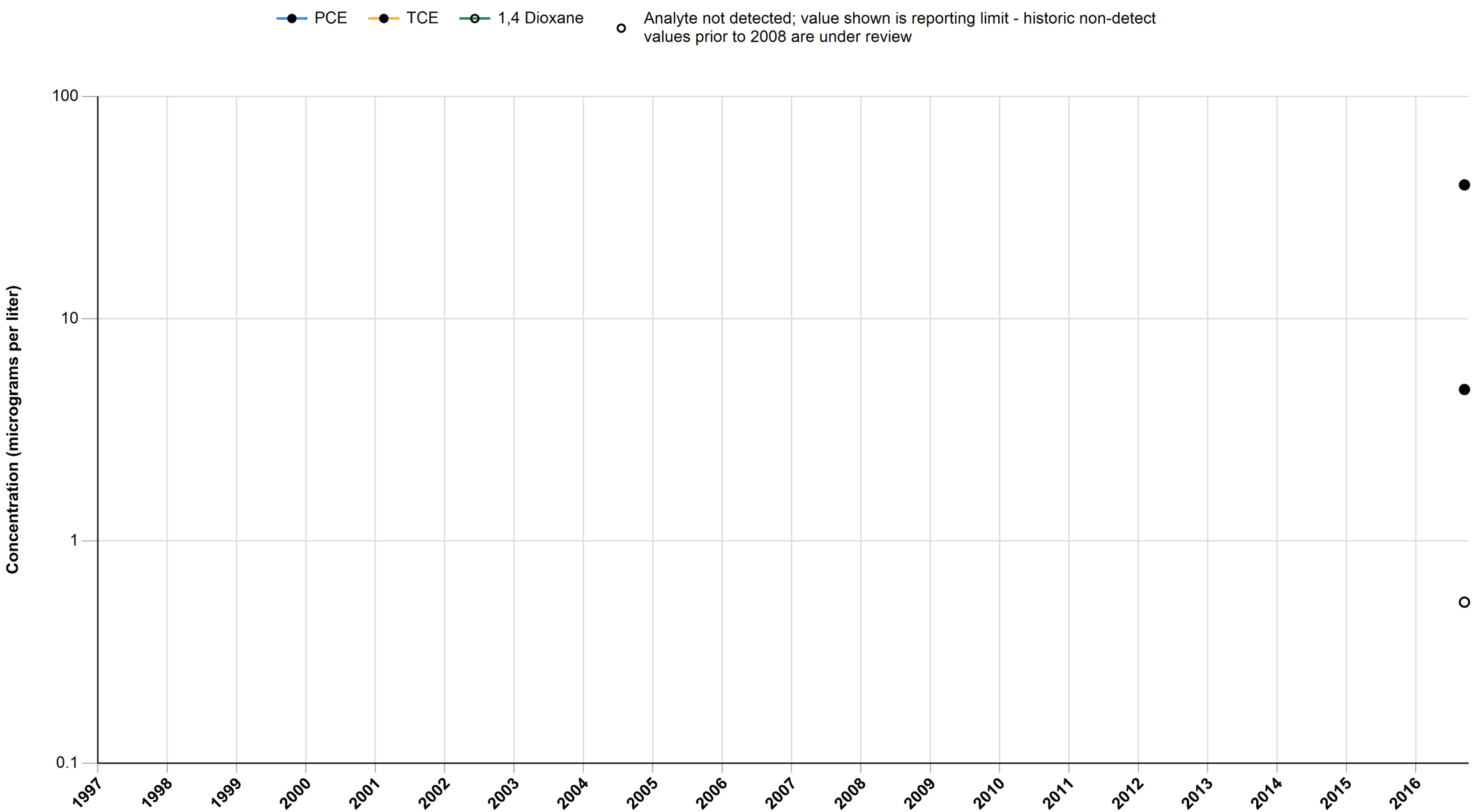
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-3



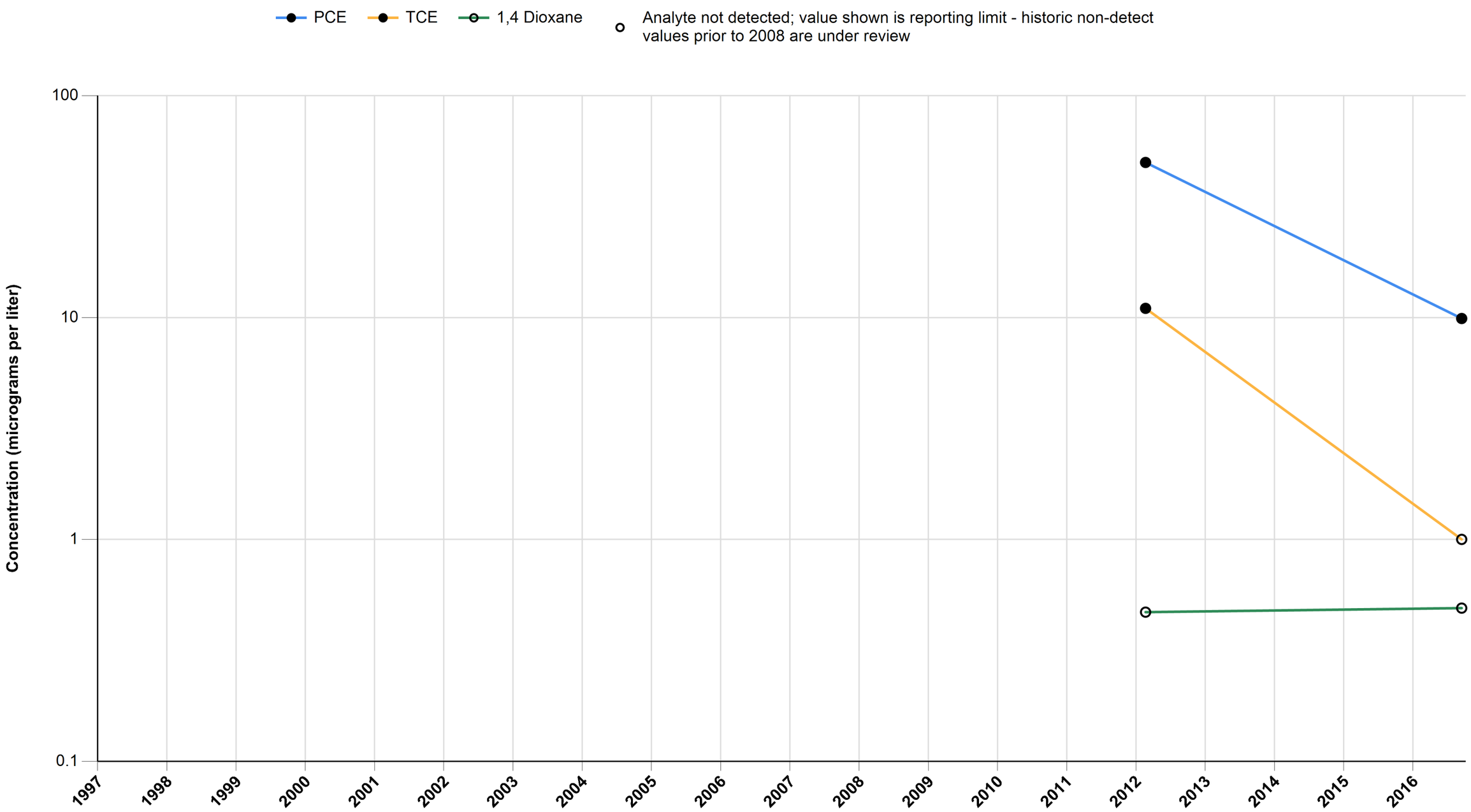
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-4



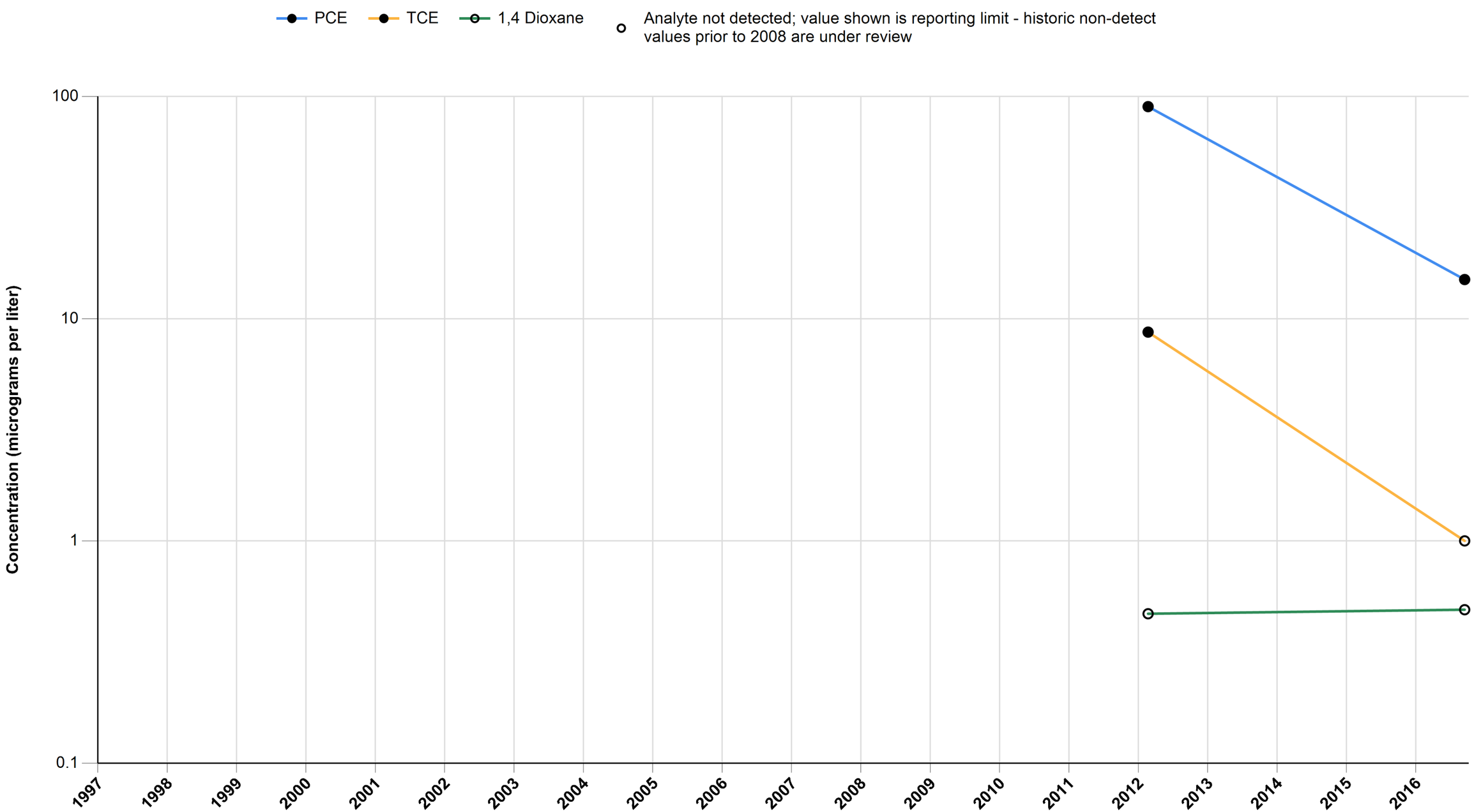
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-5



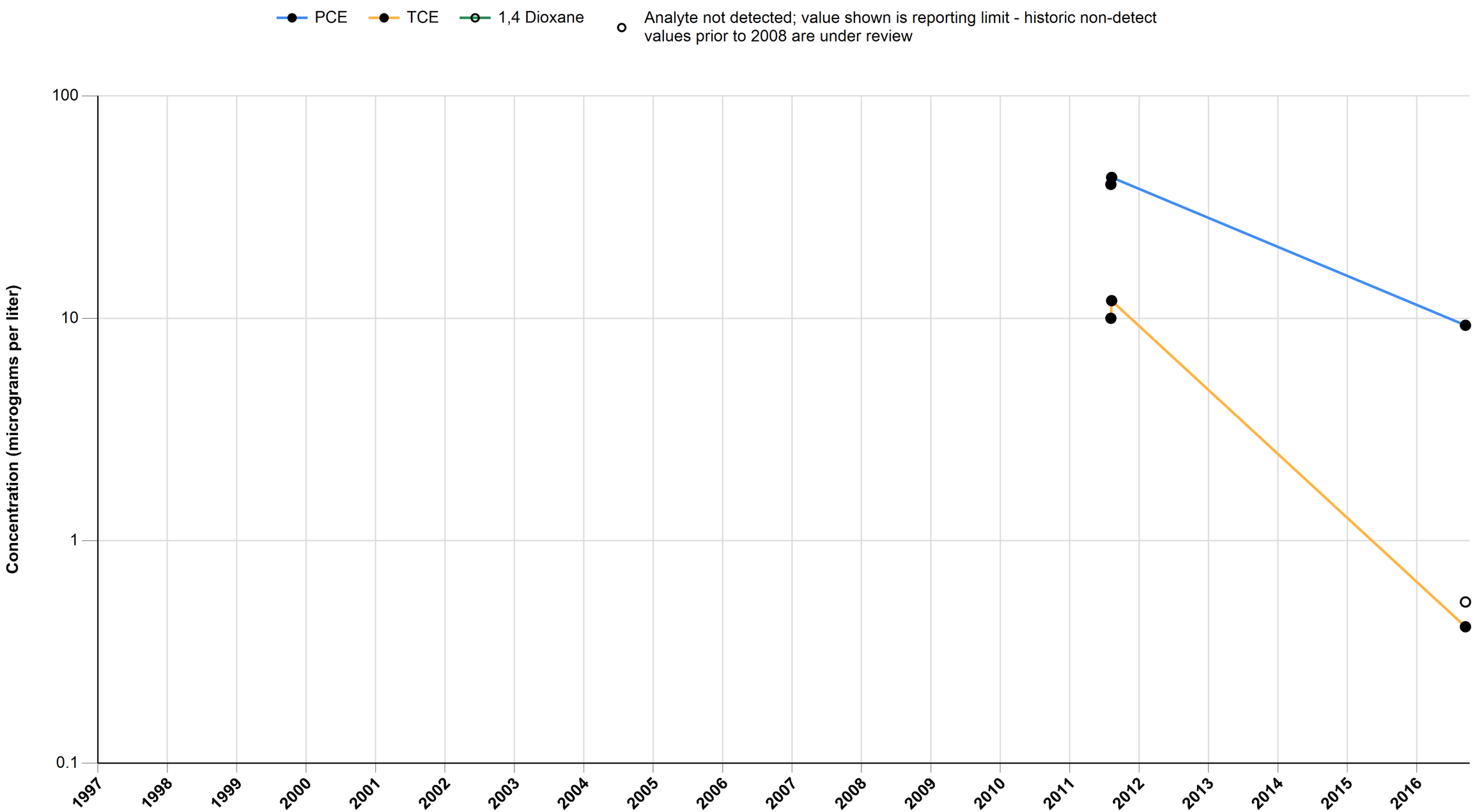
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-6



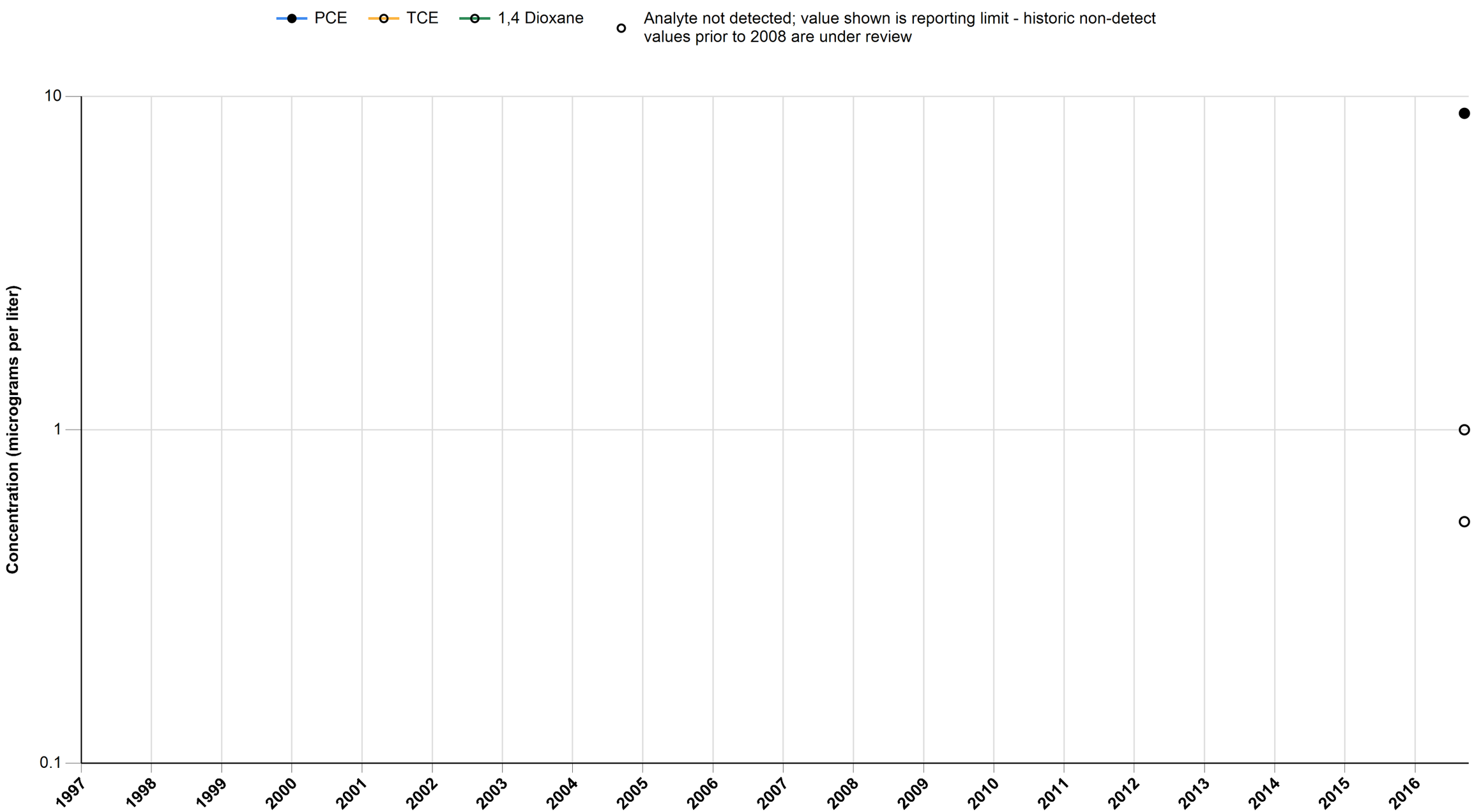
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-7



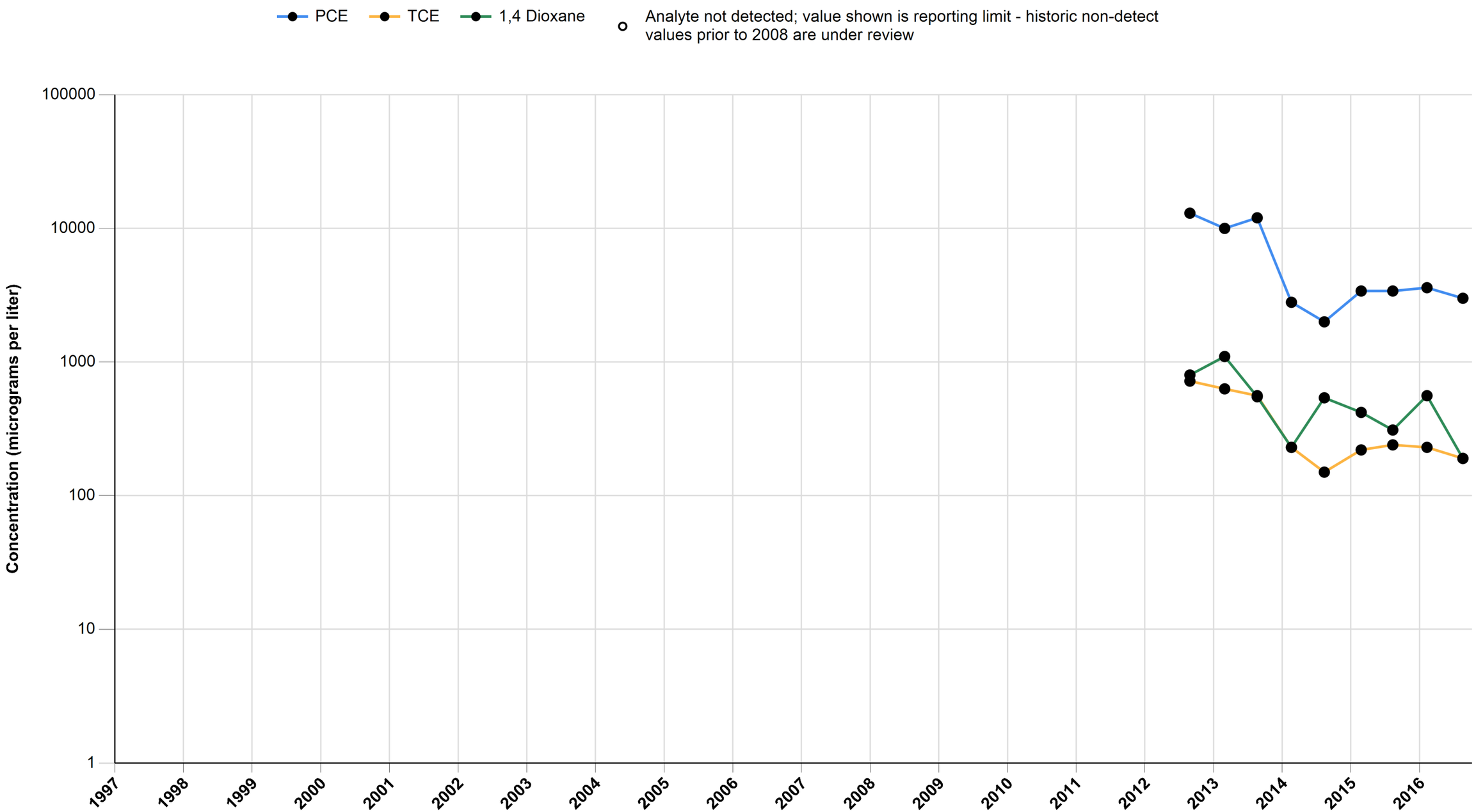
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-8



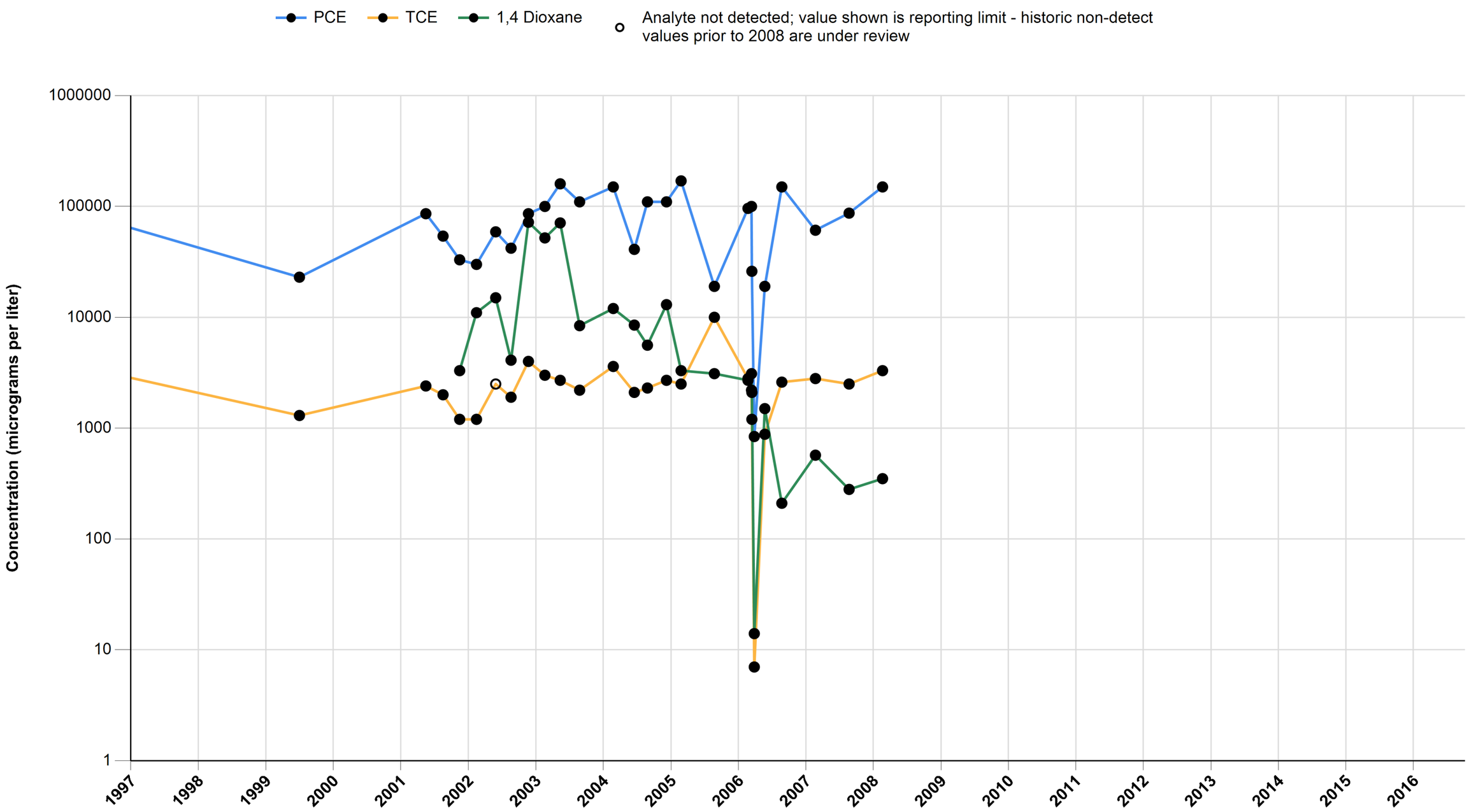
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

PZ-9



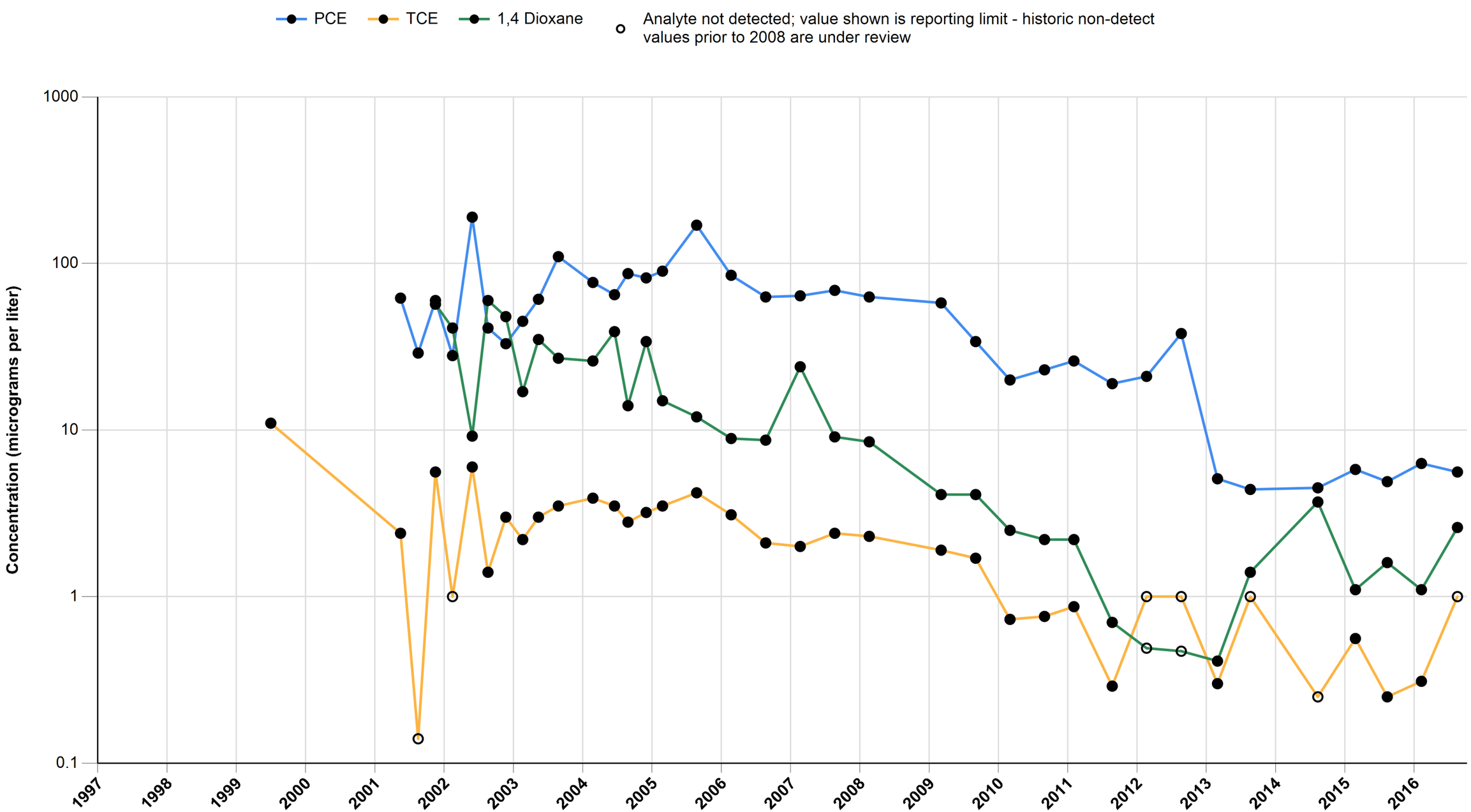
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW1A



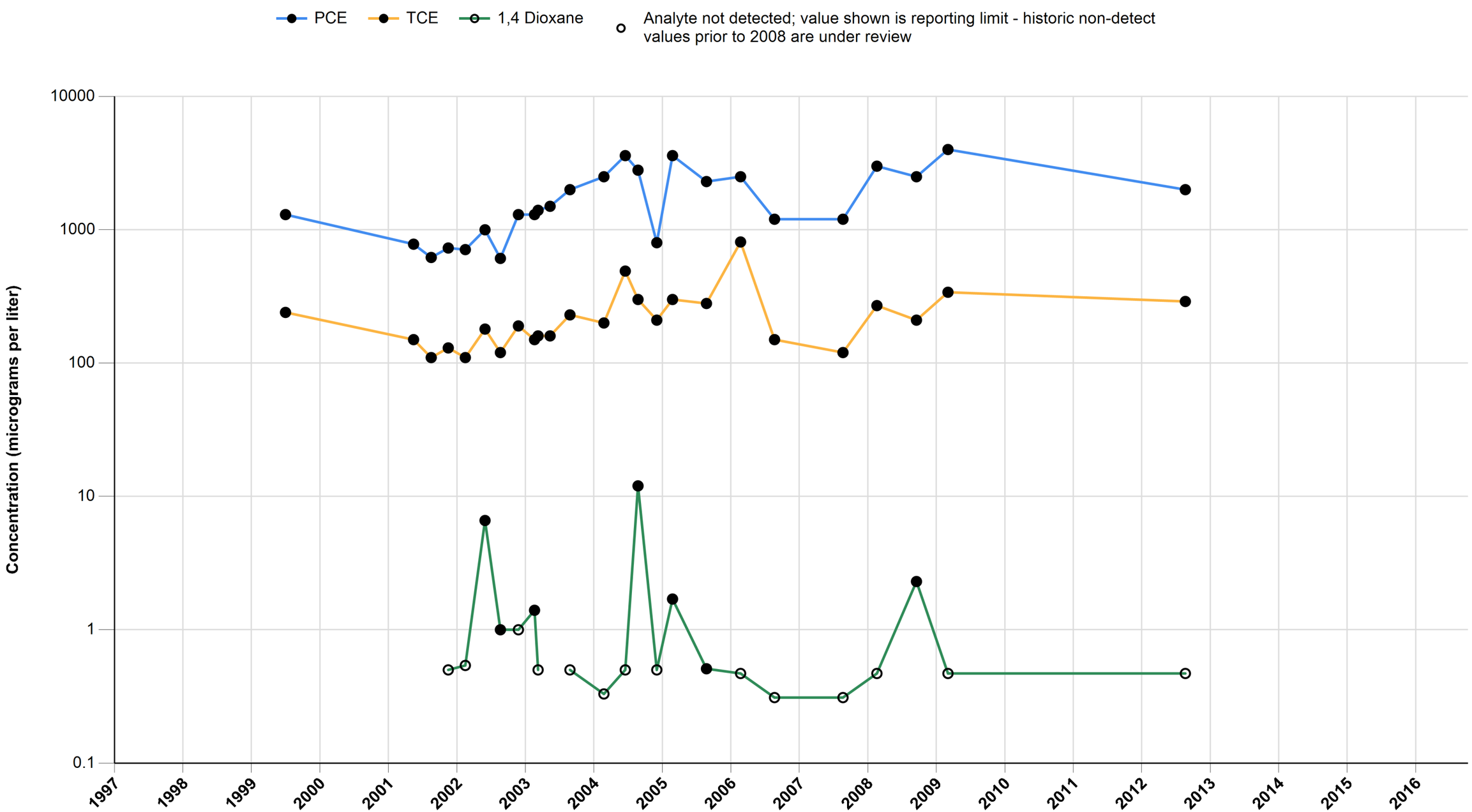
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW1b



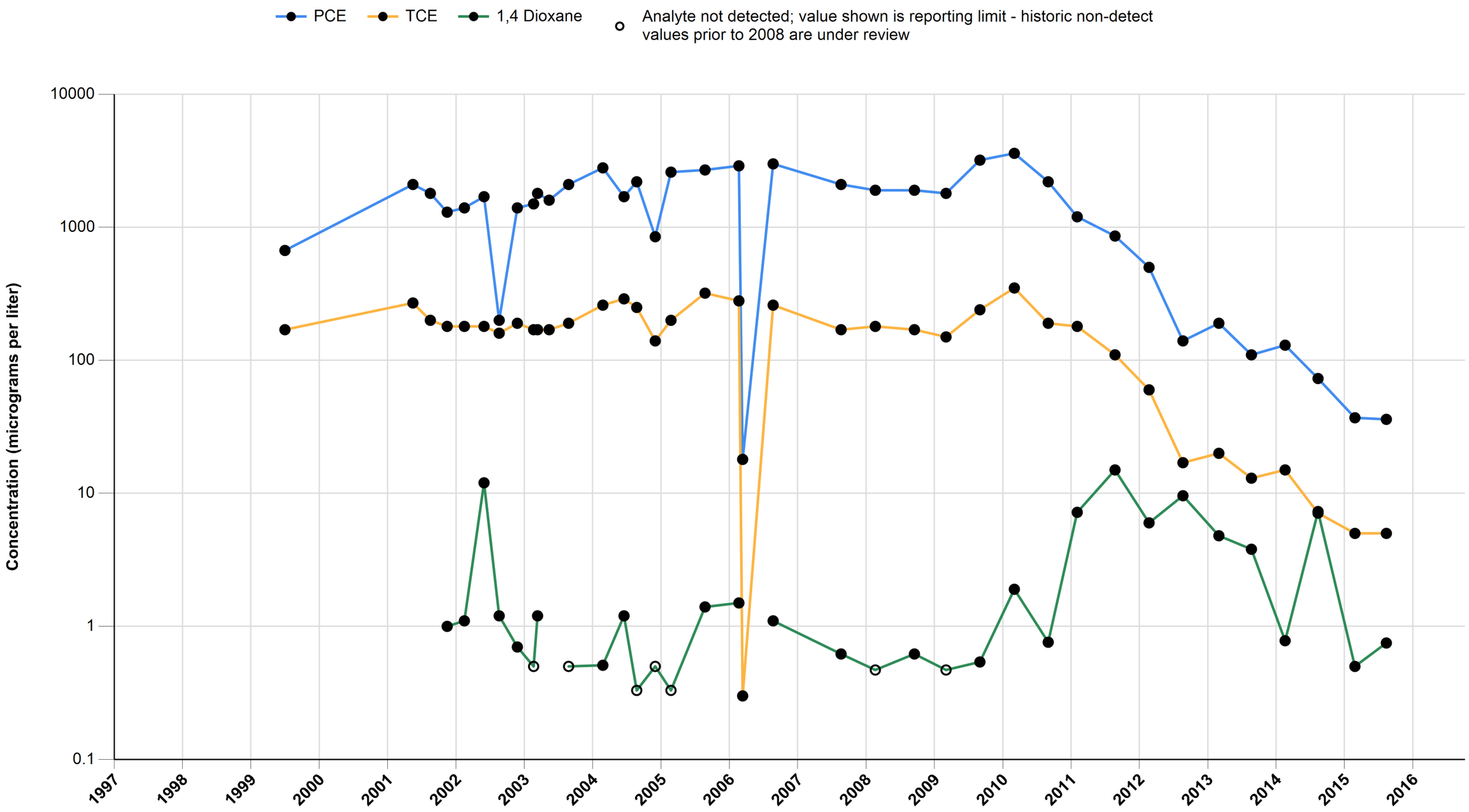
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW2



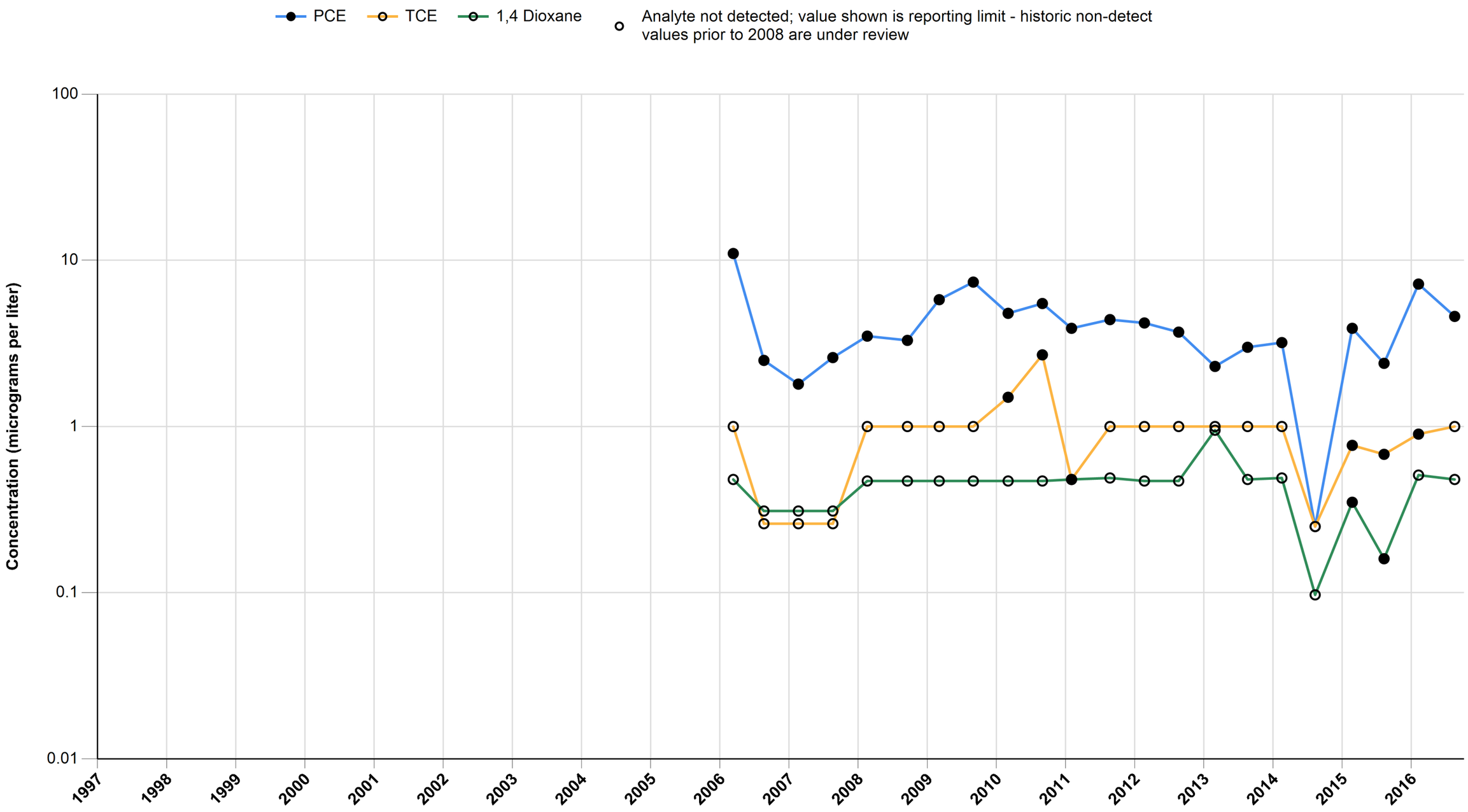
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW3A



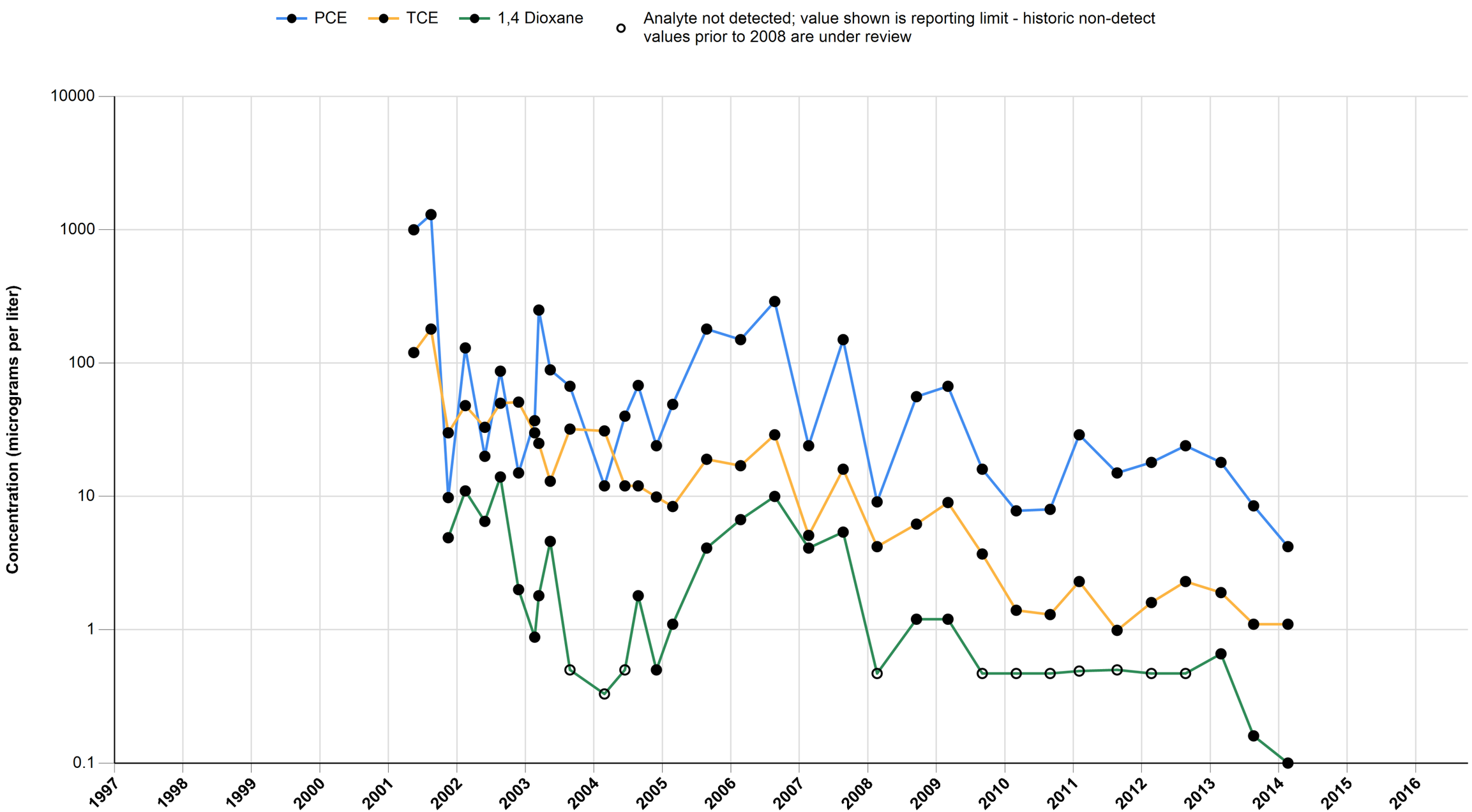
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW3B



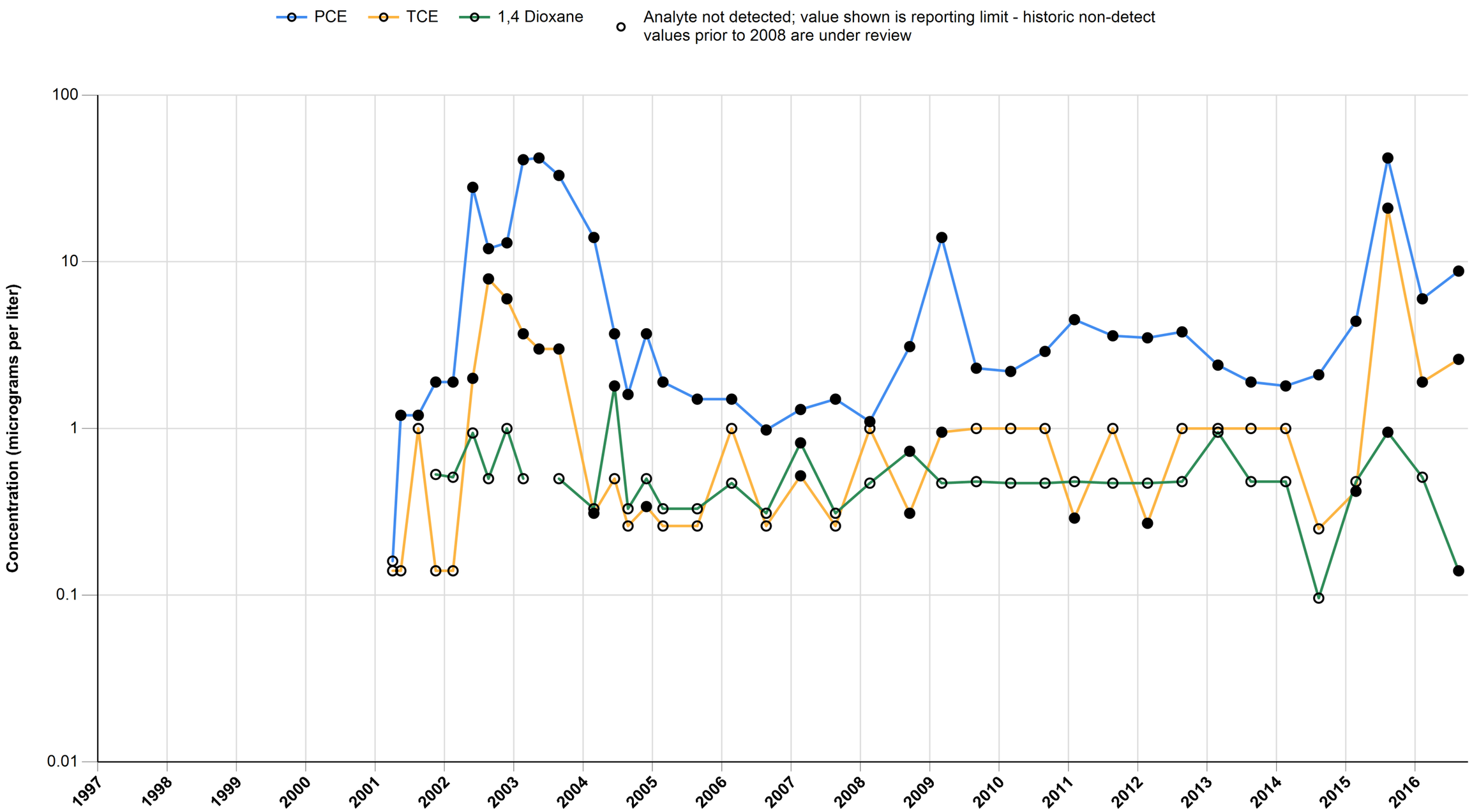
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW4A



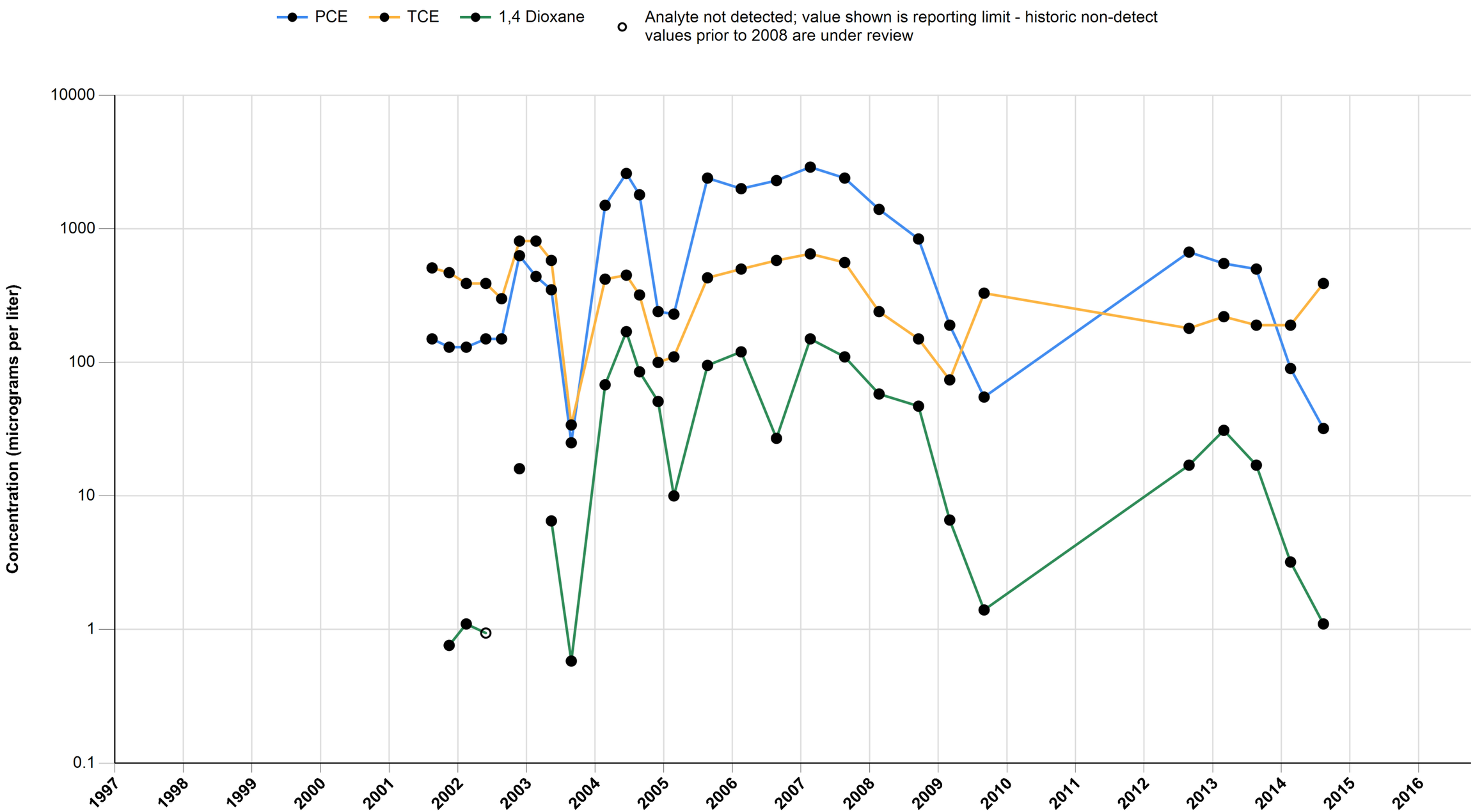
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW4B



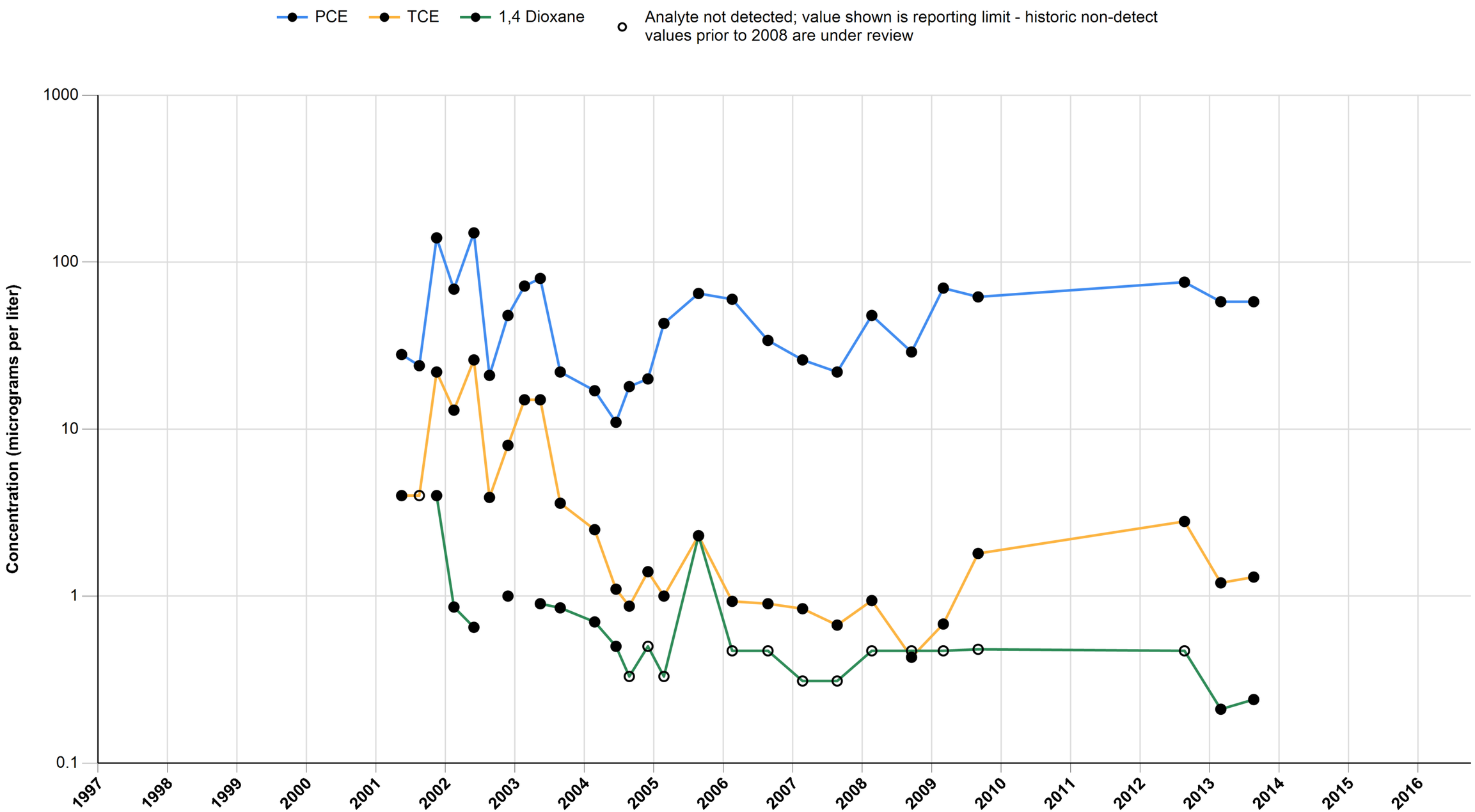
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW5



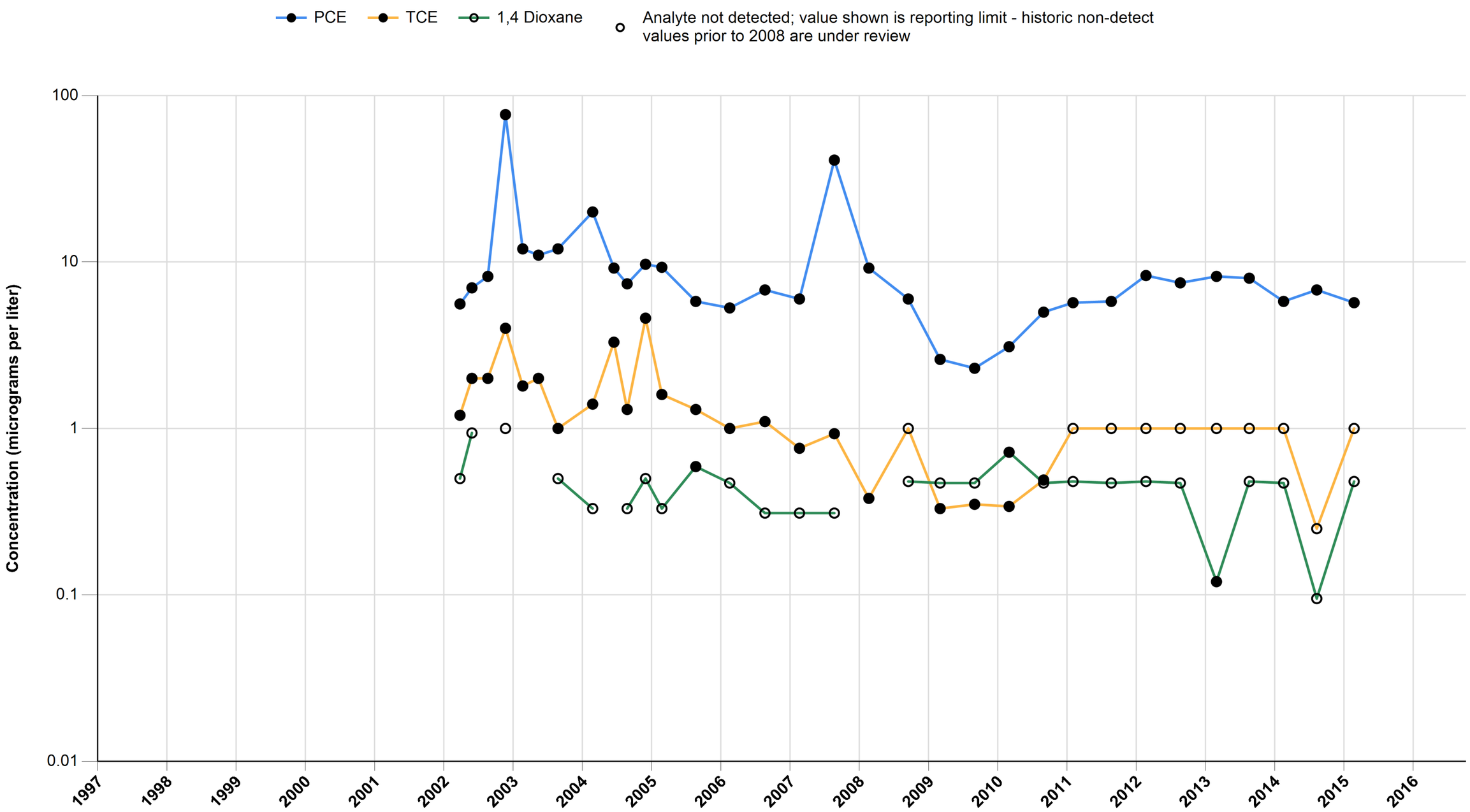
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW6



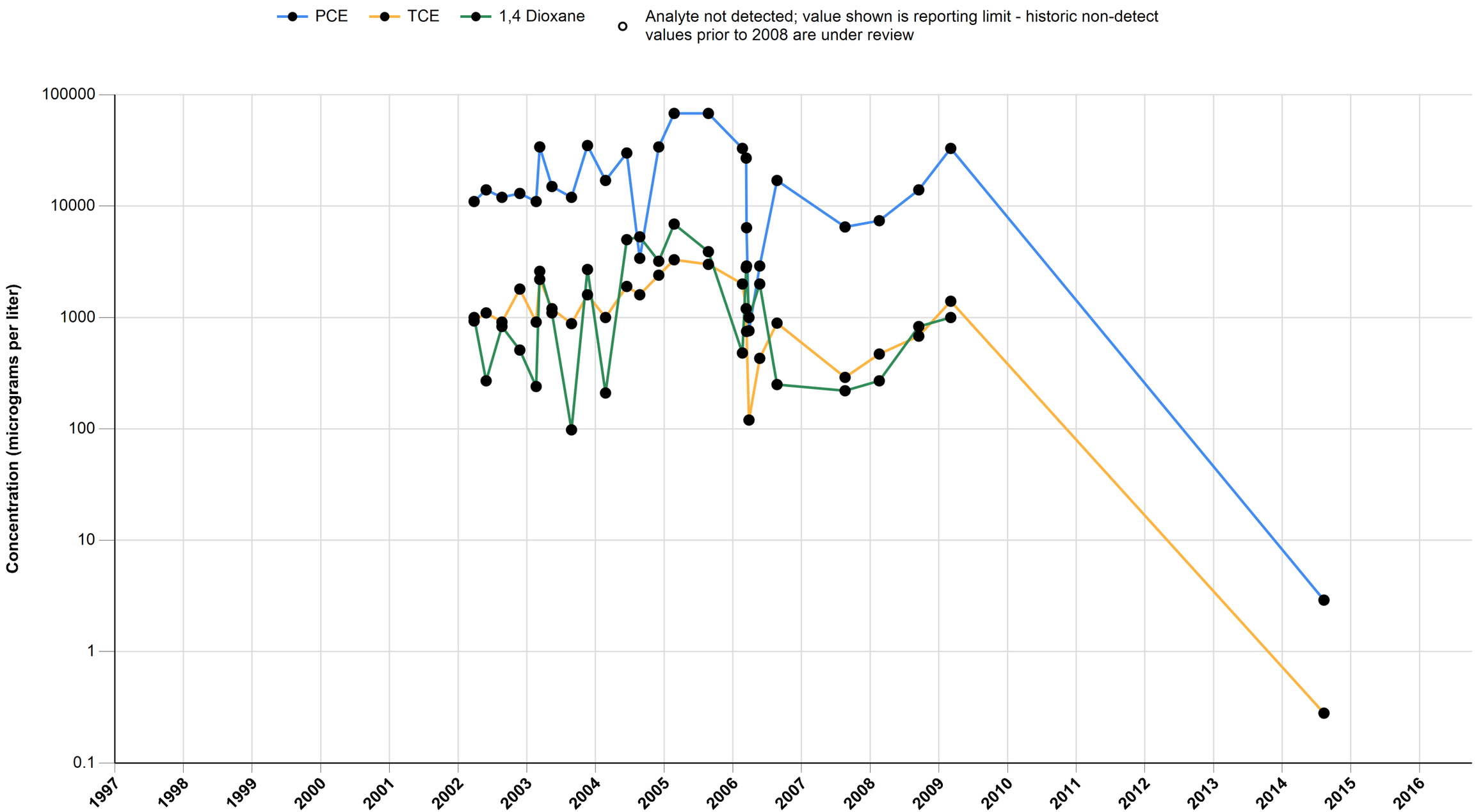
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW7



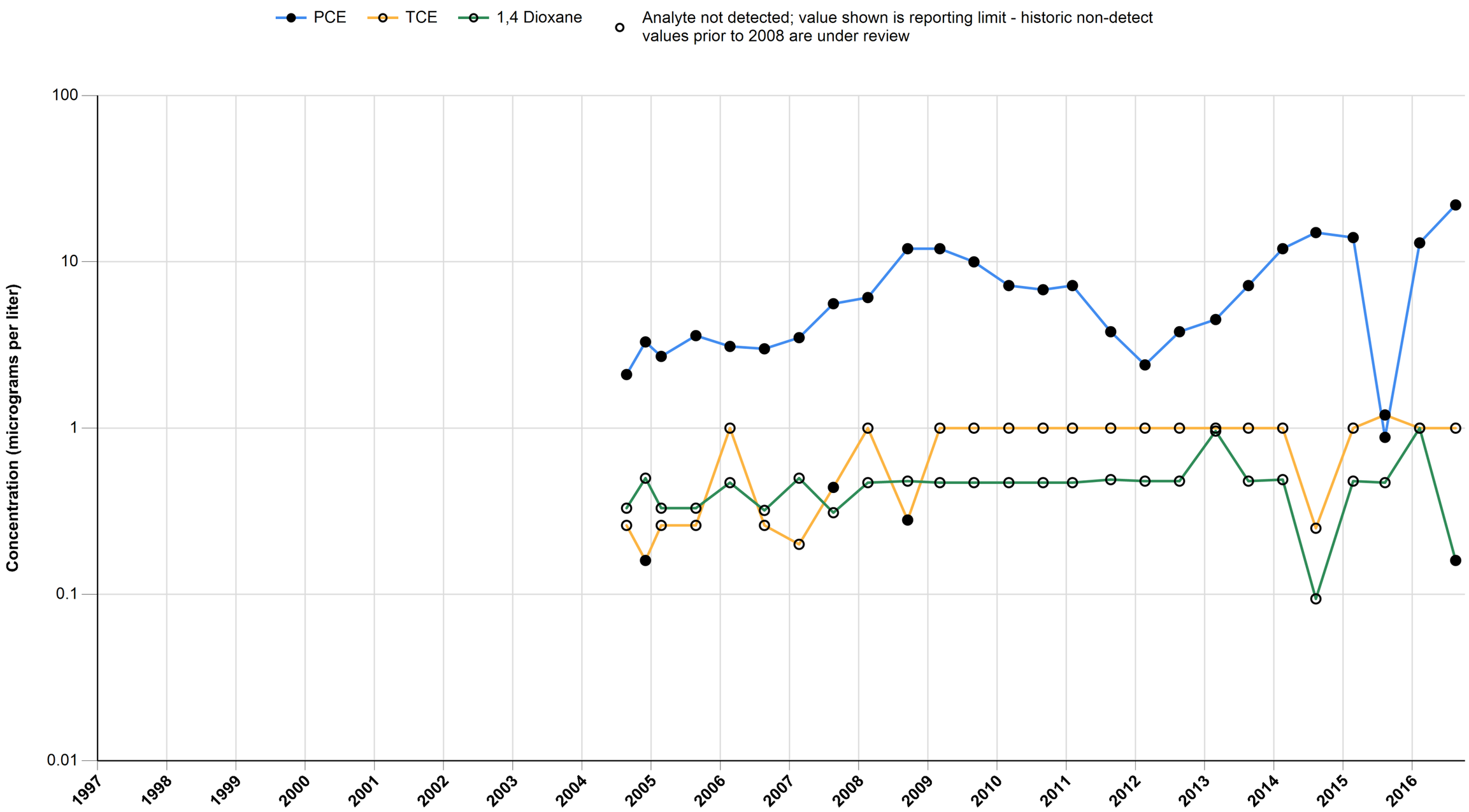
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW8A



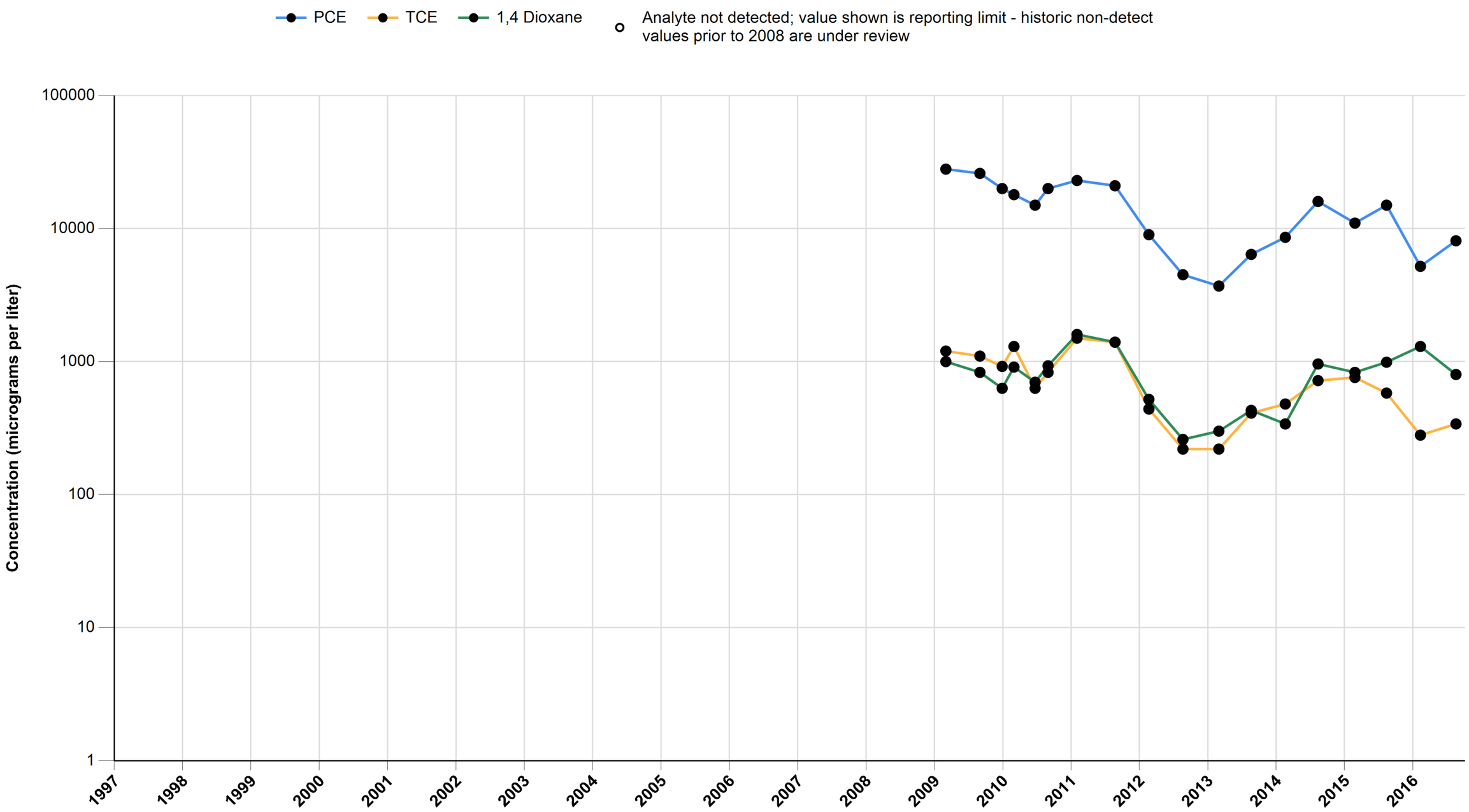
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW8B



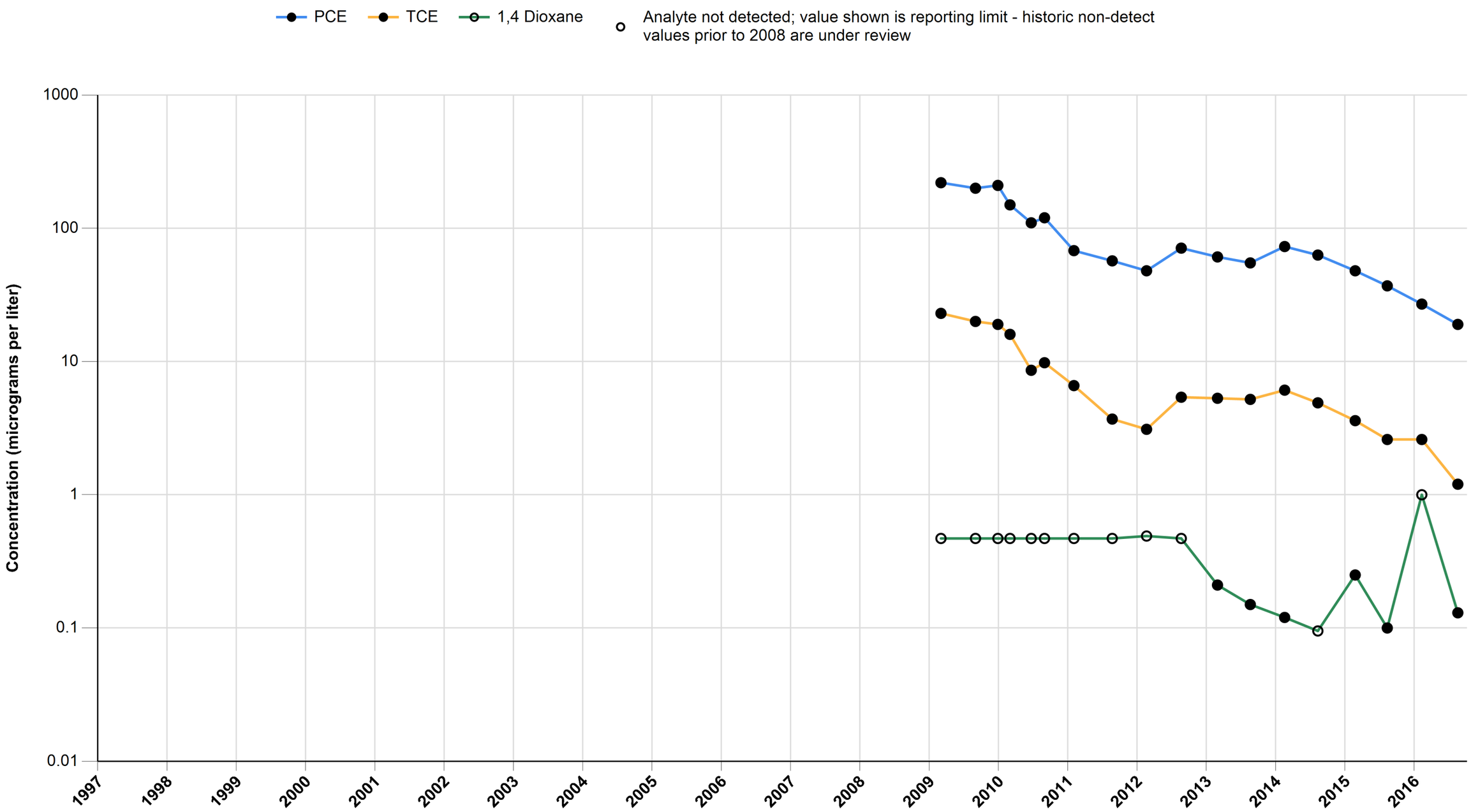
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW9



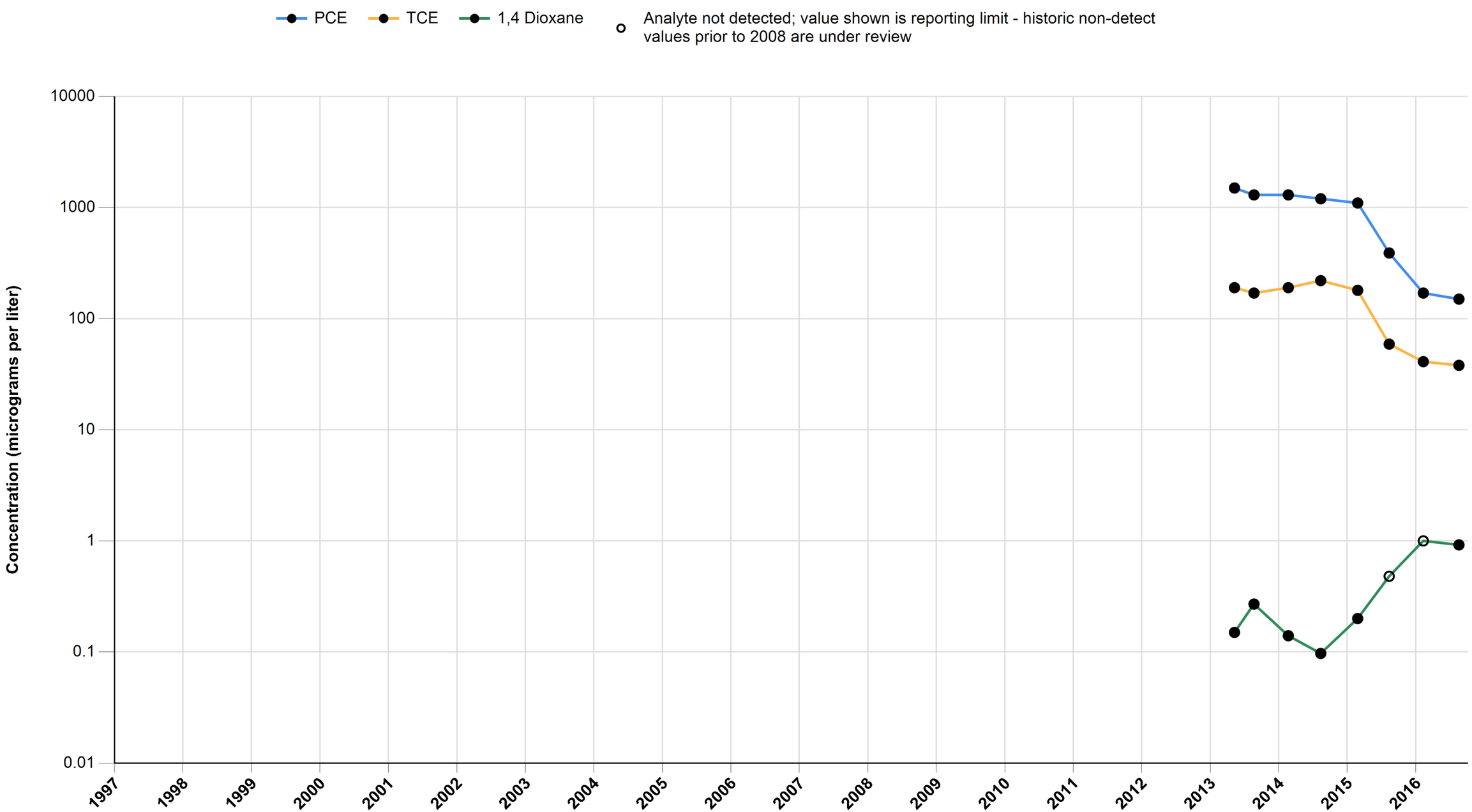
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW10



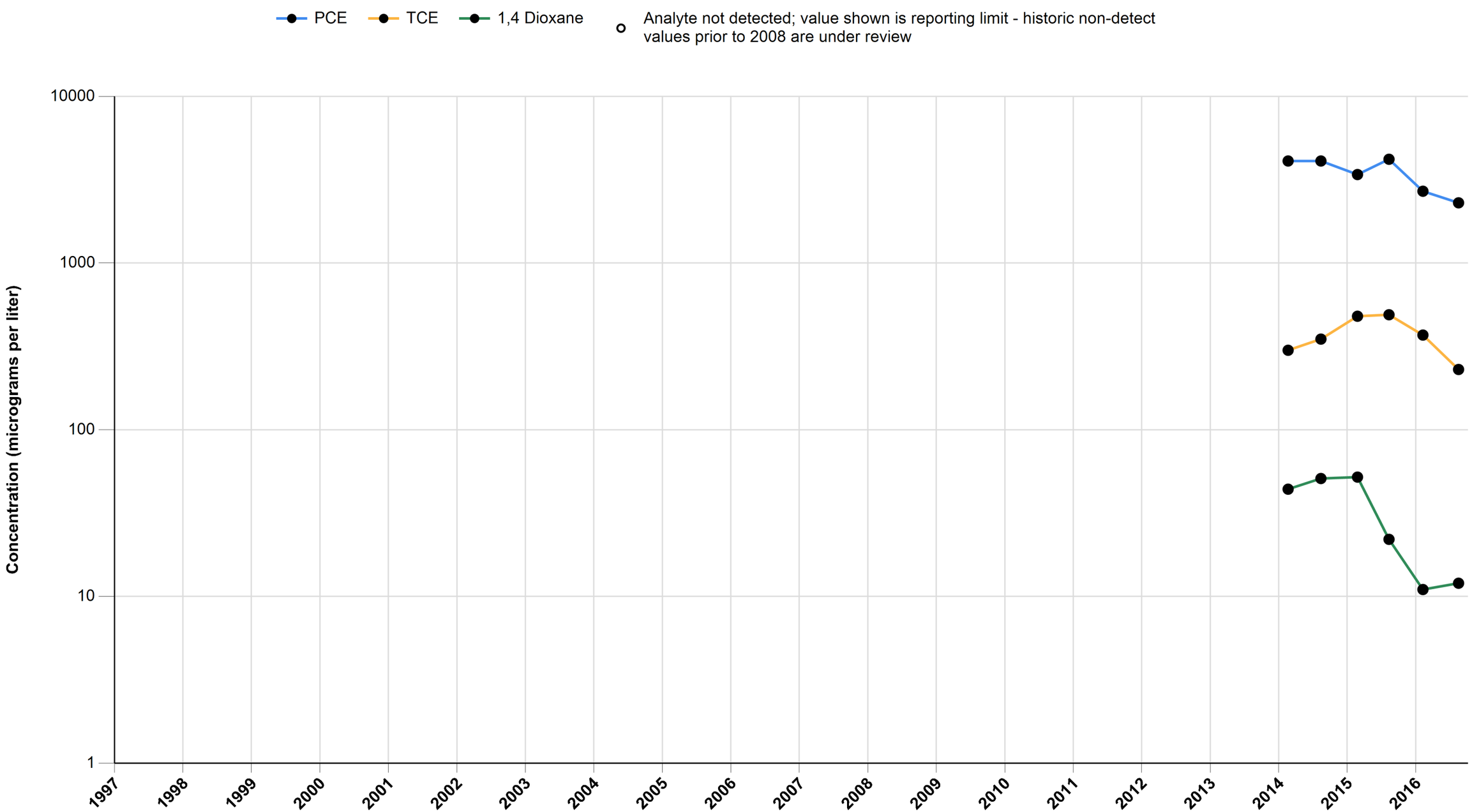
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW11



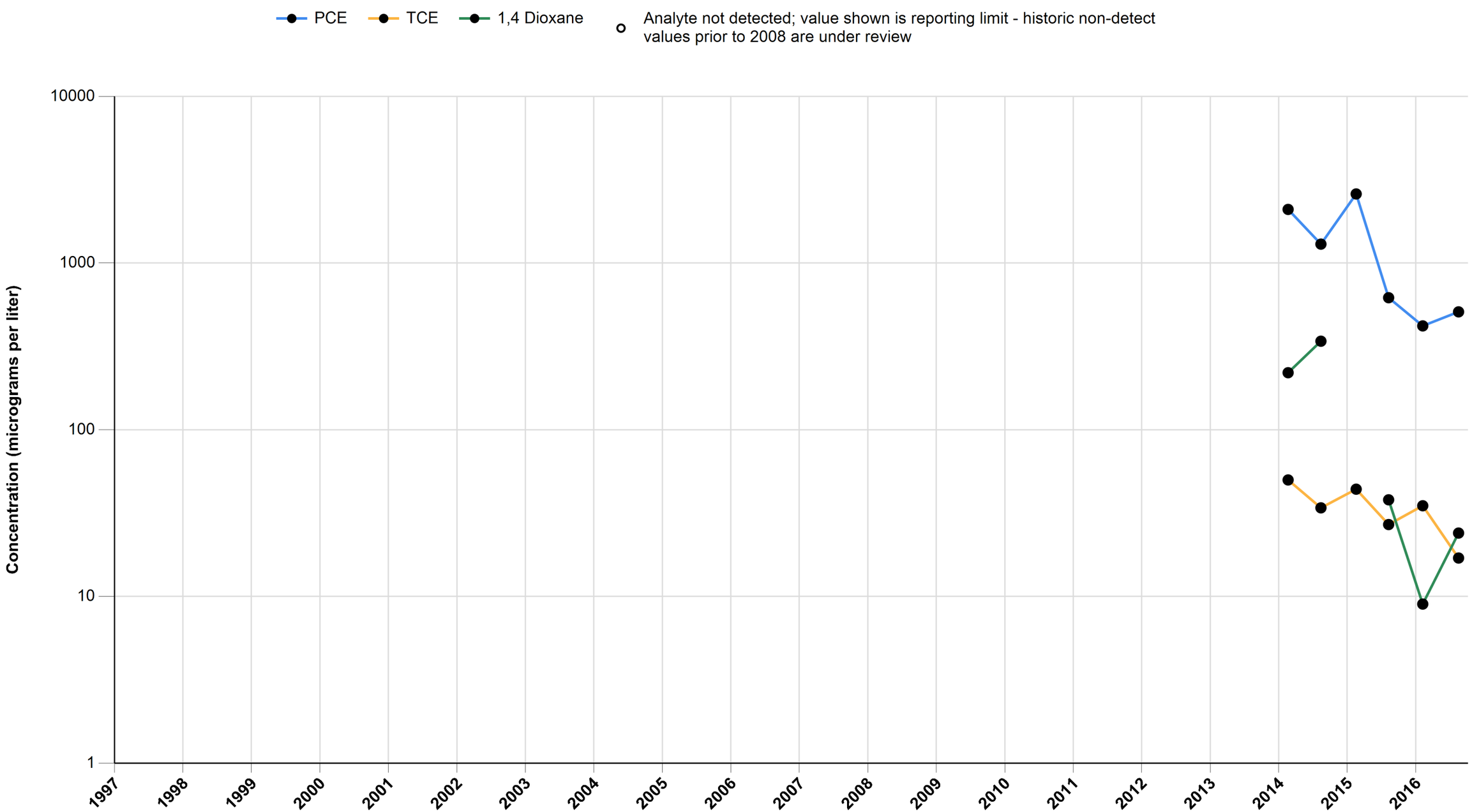
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

OW12



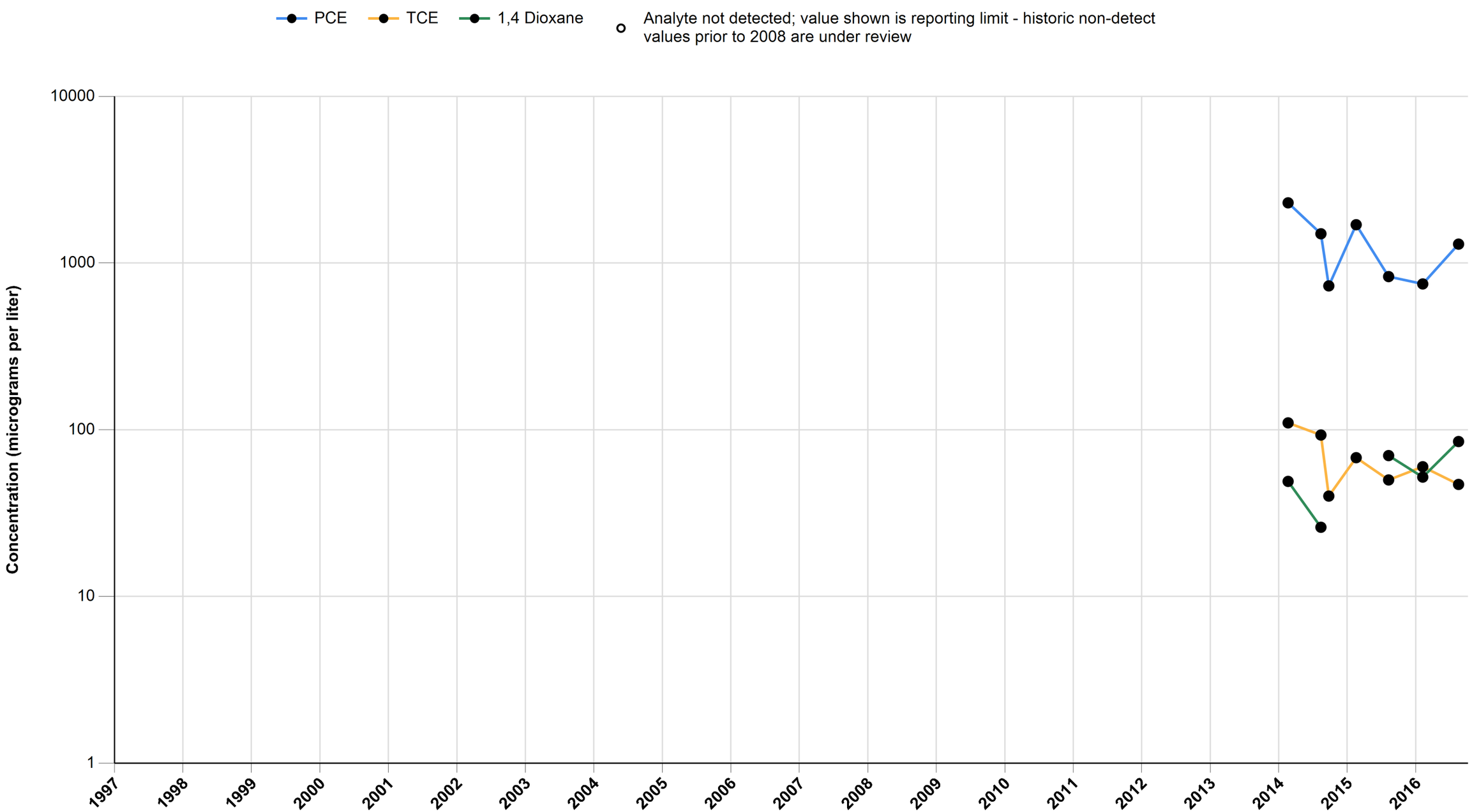
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

DPE-3



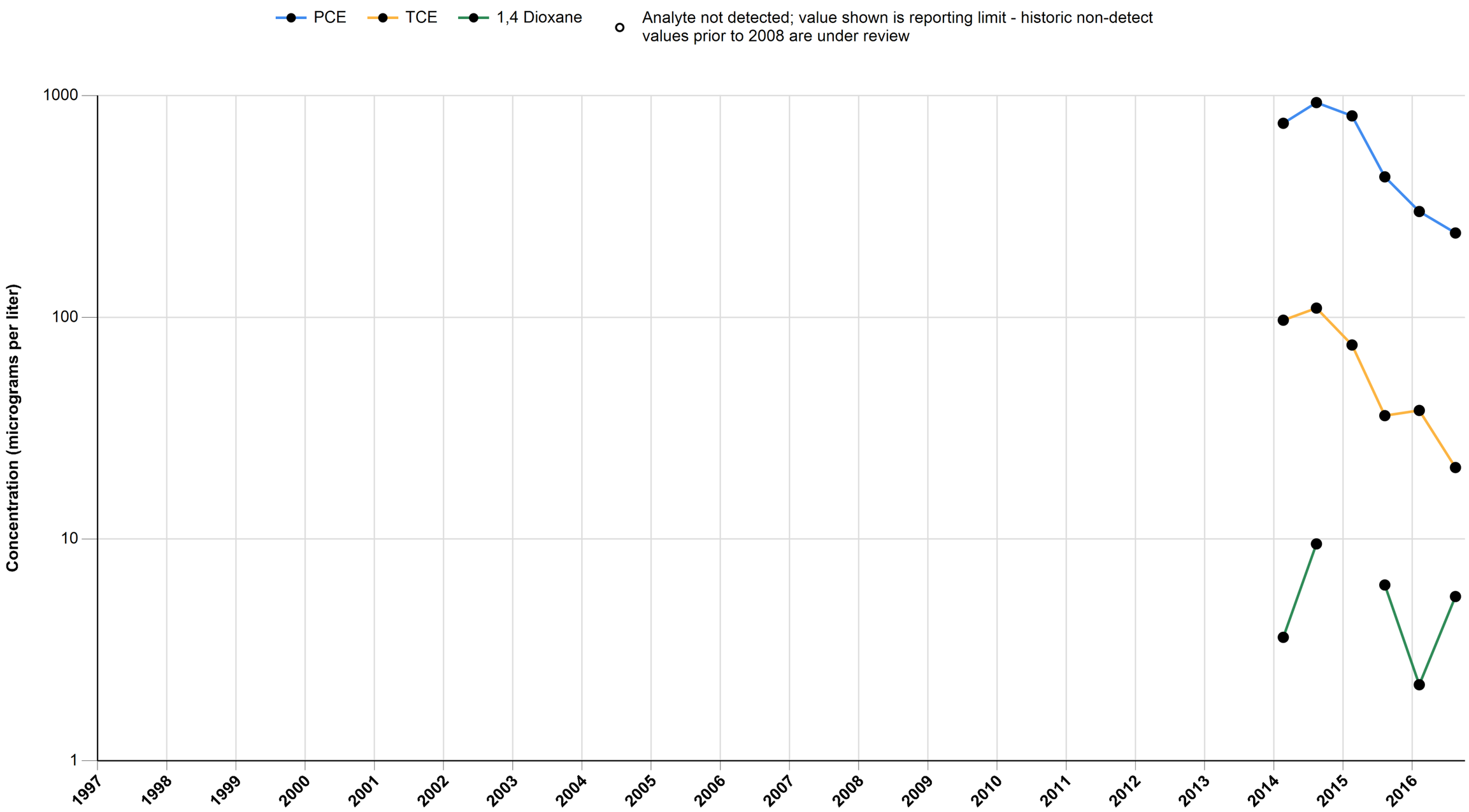
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

DPE-4



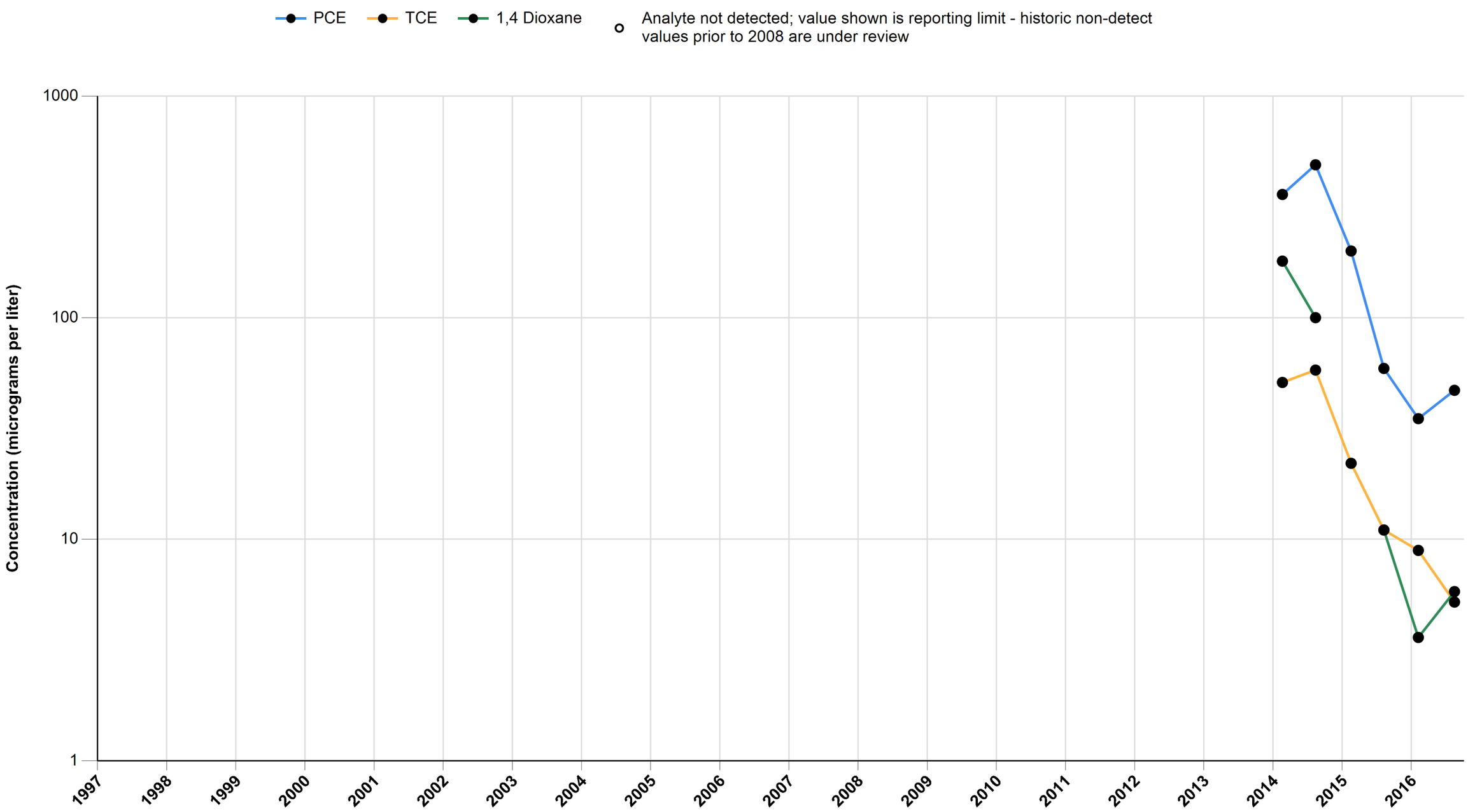
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

DPE-5



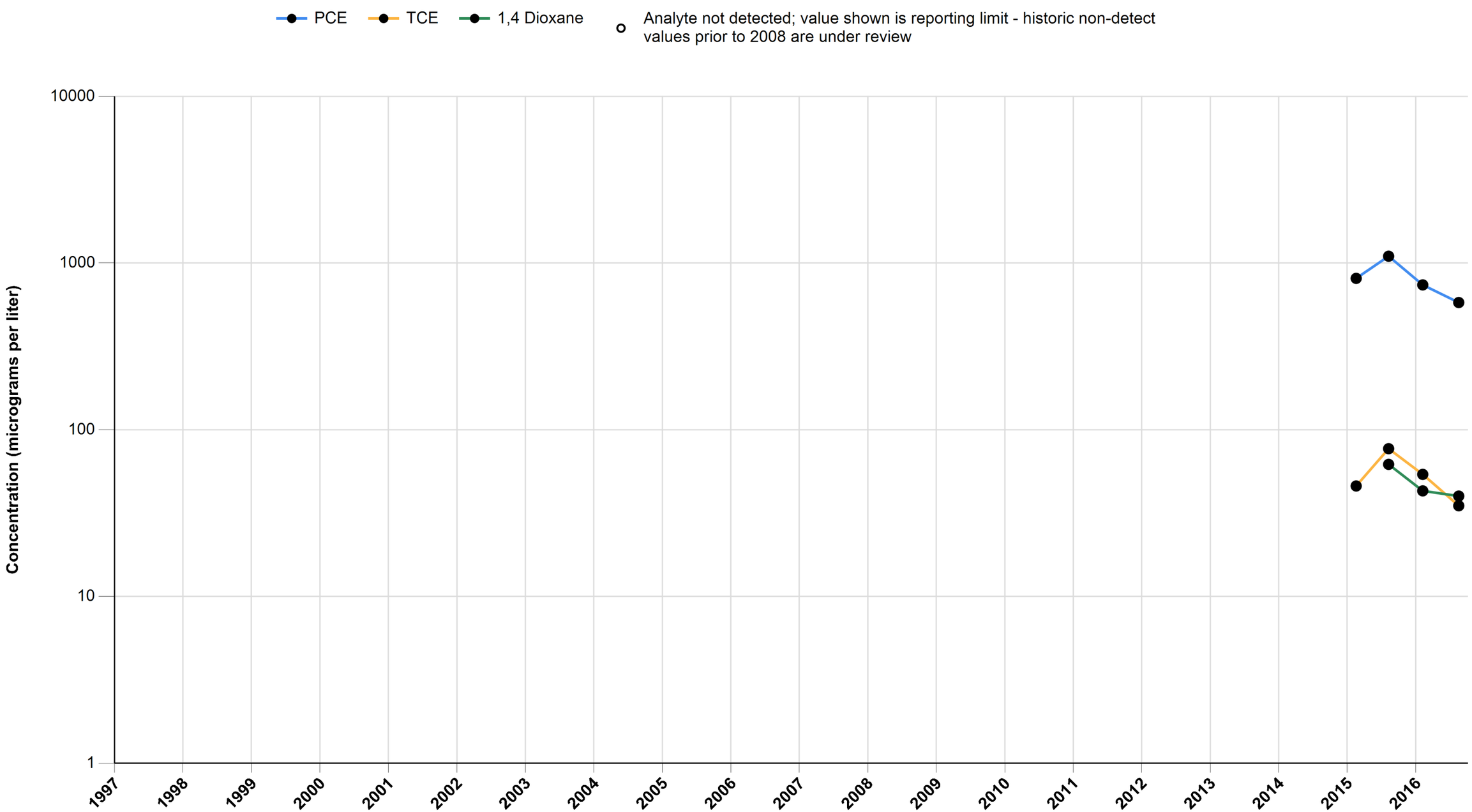
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

DPE-8



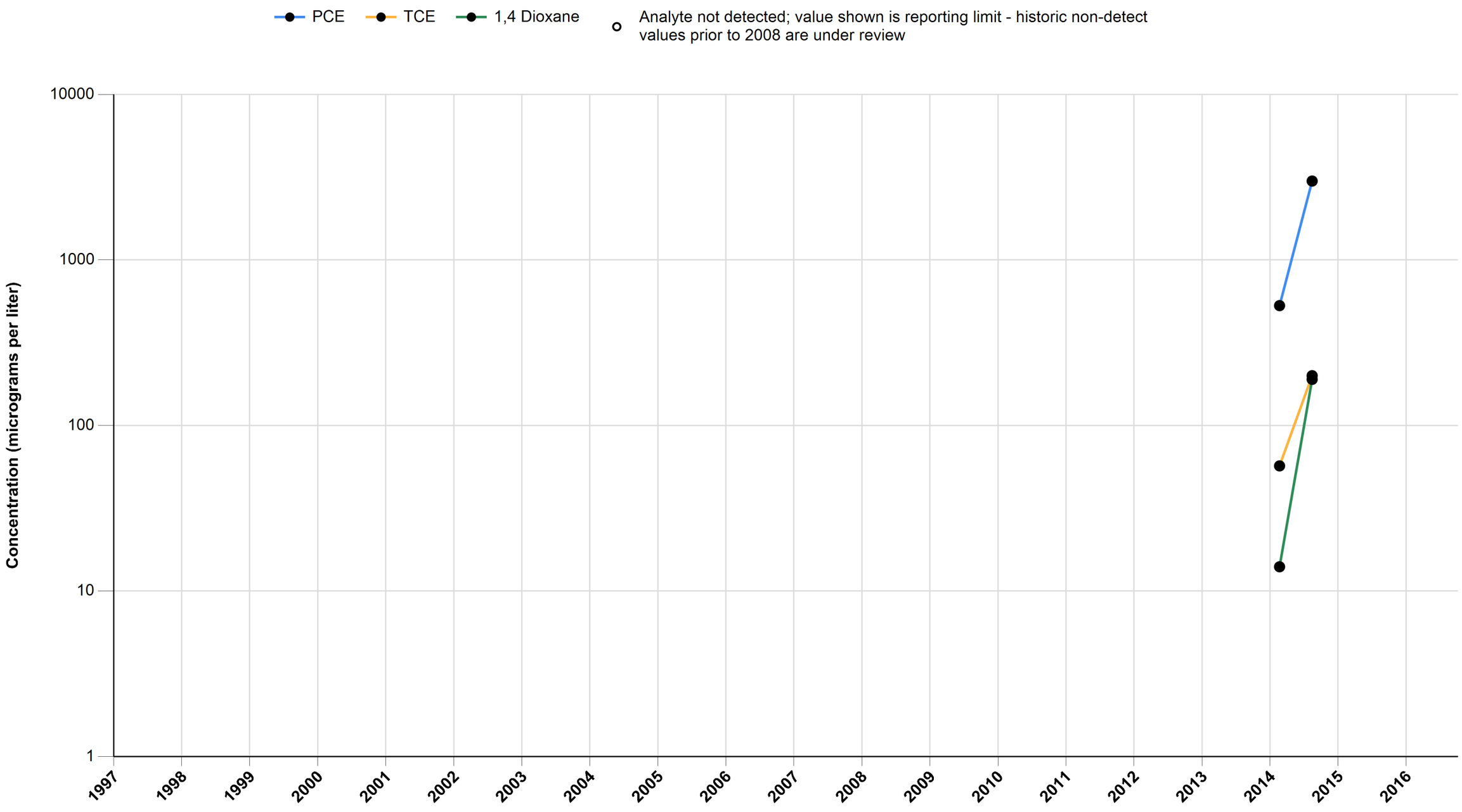
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

DPE-9



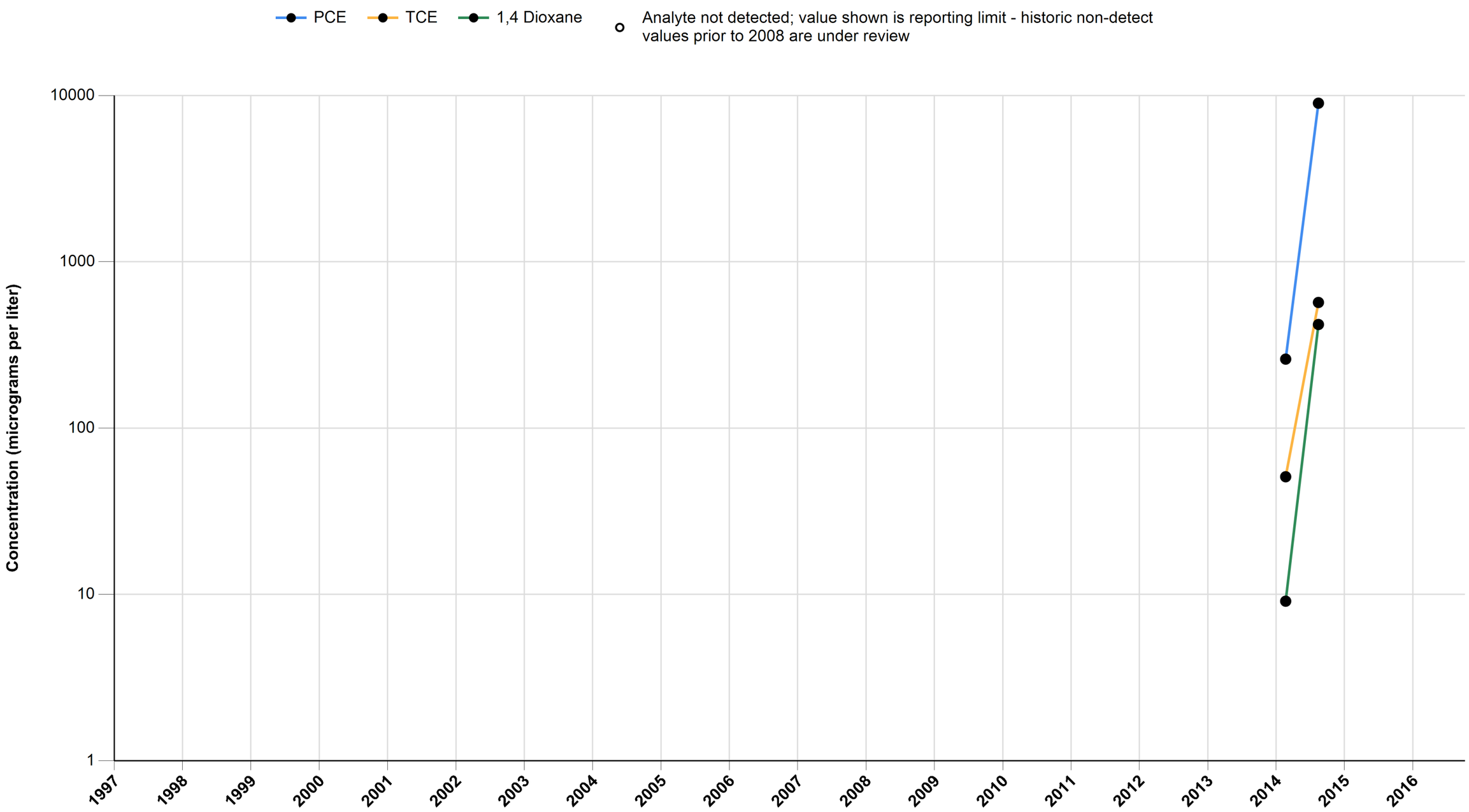
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

VE-10D



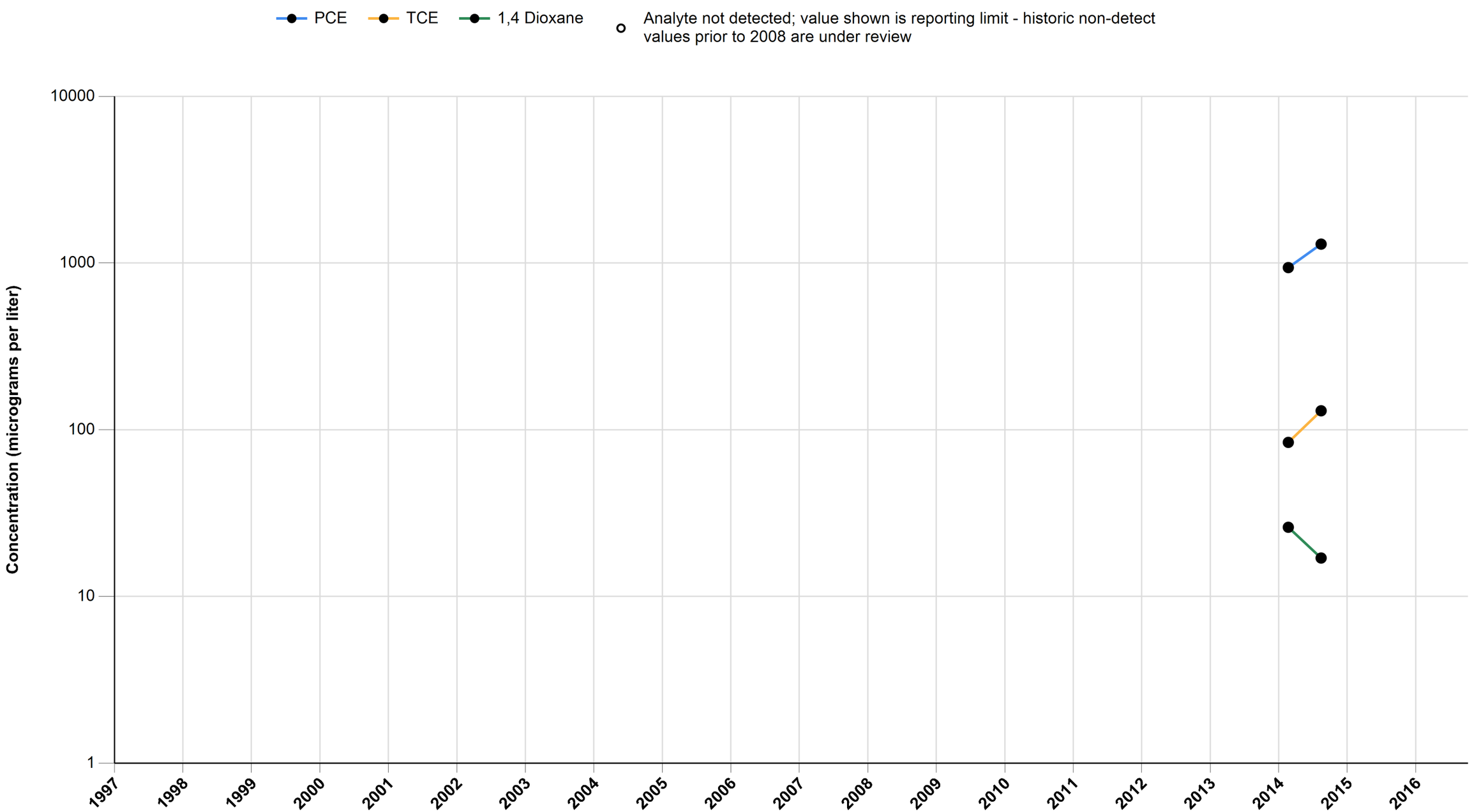
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

VE-11D



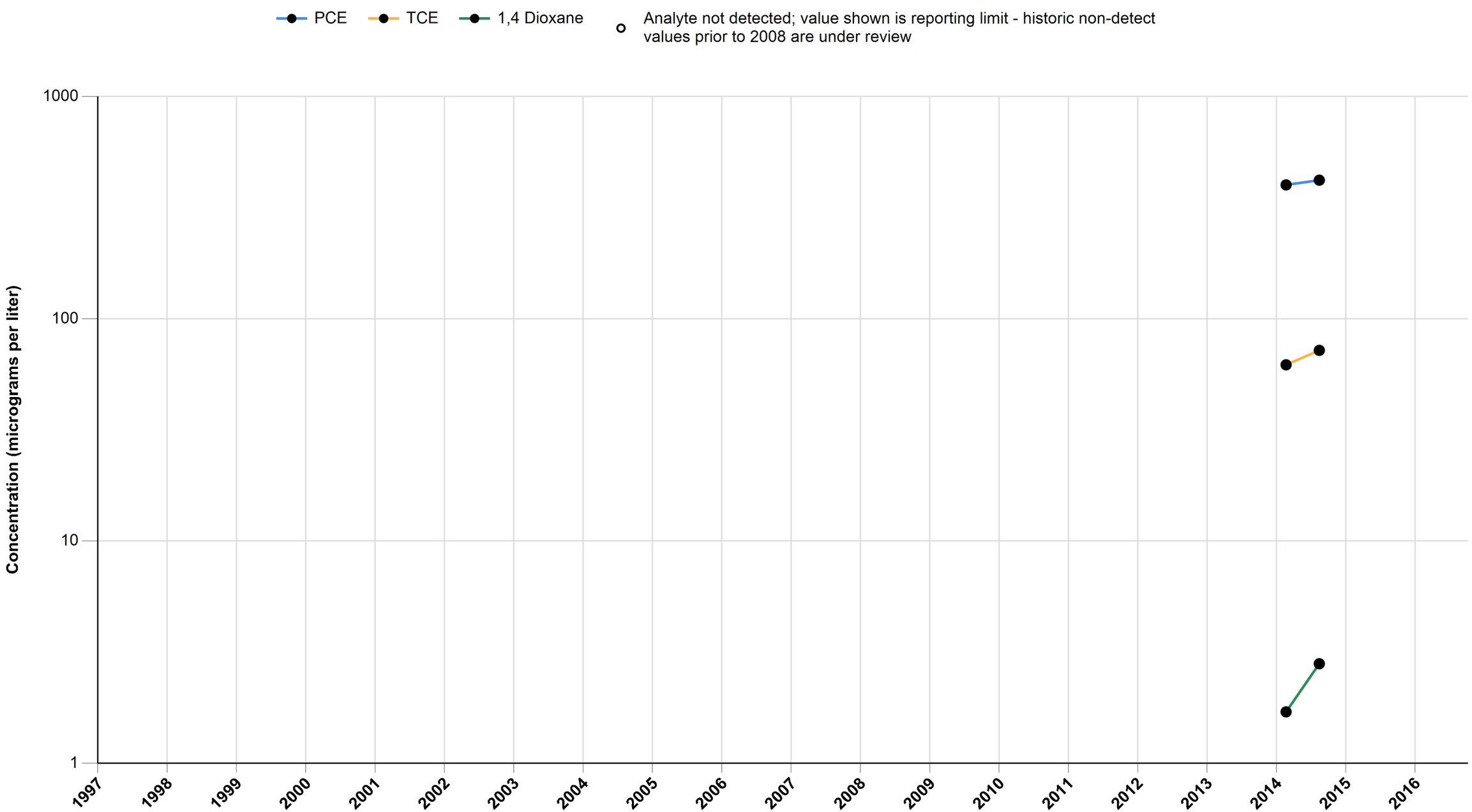
Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

VE-12D



Attachment D.2
Omega Chemical Superfund Site
Groundwater Analytical (PCE, TCE and 1,4-Dioxane)

VE-13D



ATTACHMENT E

DPE-3 and DPE-9 Construction Logs and Local Lithologic Cross Section

CDM Smith
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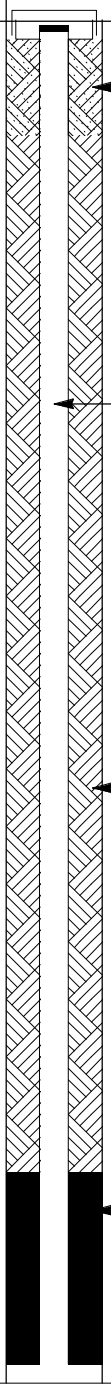
(949) 752-5452
(949) 752-3790 (FAX)

BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	10500-97768.OSS.DESIGN	**BORING/WELL NUMBER**	DPE-3
PROJECT NAME	Omega Chemical Facility	**DATE DRILLED**	1/16/2014
LOCATION	12511 Putnam St	**CASING TYPE/DIAMETER**	
DRILLING METHOD	Hollow Stem Auger	**SCREEN TYPE/SLOT**	20 slot, Sch 40 PVC screen
SAMPLING METHOD	5' continuous core	**GRAVEL PACK TYPE**	#2/12 Monterey Sand
GROUND SURFACE ELEVATION (FT MSL)		**GROUT TYPE/QUANTITY**	Portland Cement with 5% Bentonite
TOP OF CASING ELEVATION (FT MSL)		**STATIC WATER LEVEL (FT BTOC)**	
LOGGED BY	Will Grove	**GROUND WATER ELEVATION (FT MSL)**	
REMARKS	In the parking lot, north corner, screen 40-100 ft bgs		

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
0		60						ASPHALT is 0.3 feet thick	0.3
								ROADBASE is 0.3 feet thick.	0.6
						ML		SILT: very dark grayish brown (10YR 2/2); 65% silt, no plasticity, stiff; 20% clay; 15% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	
0		49			5				6.0
						ML		SANDY SILT: very pale brown (10YR 7/3); 50% silt, low plasticity, stiff; 30% sand, poorly graded, very fine, subangular to subrounded; 20% clay; heavy white mottling, moist, heavy white mottling, no odor.	
0		50			10	ML		SILT: brown (10YR 5/3); 50% silt, no plasticity, stiff; 30% clay; 20% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	10.0
0		44			15			CLAY dark yellowish brown (10YR 4/4); 80% clay, very stiff, low plasticity; 10% silt; 10% sand, poorly graded, very fine, subangular to subrounded; moist, no odor. Gravel lens 18-18.1 30% gravel, poorly graded fine, angular to subround; sand, poorly graded, fine to medium, subangular to subrounded.	15.0
0		51			20	CL		CLAY dark yellowish brown (10YR 4/4); 80% clay, stiff, low plasticity; 20% silt; moist, no odor.	
								CLAY dark yellowish brown (10YR 4/4); 80% clay, very stiff, low plasticity; 10% silt; 10% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	
0		59			25				
0		49			30	ML		SANDY SILT: brown (10YR 5/3); 60% silt, low plasticity, stiff; 40% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	30.0
						CL		CLAY: dark yellowish brown (10YR 4/4); 100% clay, hard, low plasticity; very solid, moist, no odor.	31.3
					35				35.0

WELL DIAGRAM



- Concrete (0-3 ft bgs)
- 4 diameter, sch 40, PVC blank (0-40 ft bgs).
- Portland cement w/5% bentonite grout (3-30 ft bgs).
- Medium bentonite chips (30-34 ft bgs); and bentonite granules (34-35 ft bgs).

Continued Next Page

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 10500-97768.OSS.DESIGN **BORING/WELL NUMBER** DPE-3
PROJECT NAME Omega Chemical Facility **DATE DRILLED** 1/16/2014

Continued from Previous Page

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0		56						CLAY: dark yellowish brown (10YR 4/4); 100% clay, hard, low plasticity; very solid, moist, no odor.		4 diameter, sch 40, PVC blank (0-40 ft bgs).
0		33			40			CLAY: dark yellowish brown (10YR 4/4); 65% clay, stiff, low plasticity; 25% silt; 10% sand, poorly graded, very fine, subangular to subrounded; white mottling, moist, no odor.		
0		29			45	CL		CLAY: dark yellowish brown (10YR 4/4); 100% clay, hard, low plasticity; at 47' very heavy white mottling, very solid, moist, no odor.		#3 Monterey sand (35-101.5 ft bgs).
0		60			50			CLAY: dark yellowish brown (10YR 4/4); 65% clay, very stiff, low plasticity; 30% silt; 5% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.		
0		60			55					
									59.0	
0		51			60	SM		SILTY SAND: yellowish brown (10YR 5/4); 65% sand, poorly graded, very fine to fine, subangular to subrounded; 35% silt, no plasticity; dense, moist, no odor.		
									61.5	
						CL		CLAY: light yellowish brown (10YR 6/4); 70% clay, stiff, low plasticity; 20% silt; 10% sand, poorly graded, very fine, subangular to subrounded; heavy white mottling, moist, no odor.	63.0	
0.2		57			65	CL		SANDY CLAY: brown (10YR 4/3); 50% clay, low plasticity, stiff; 40% sand, poorly graded, very fine, subangular to subrounded; 10% silt; moist, no odor.		
									69.0	
0.3		60			70	CL		CLAY: brown (10YR 4/3); 80% clay, very stiff, low plasticity; 20% silt; moist, no odor.		4 diameter, 0.020, Sch. 40 SS wire wrap screen (40-100 ft bgs).
					75			CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.	75.0	

Continued Next Page

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 10500-97768.OSS.DESIGN **BORING/WELL NUMBER** DPE-3
PROJECT NAME Omega Chemical Facility **DATE DRILLED** 1/16/2014

Continued from Previous Page

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0.4		60				CL		CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.		
5.1		60			80	CL		SANDY CLAY: dark brown (10YR 3/3); 65% clay, low plasticity, stiff; 35% sand, poorly graded, very fine, subangular to subrounded; wet, no odor.	80.5	4 diameter, 0.020, Sch. 40 SS wire wrap screen (40-100 ft bgs).
								CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.	82.0	
31		53			85					#3 Monterey sand (35-101.5 ft bgs).
12.9		27			90	CL				
4.8		60			95			CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, wet, no odor.		
					100					Well cap (100-100.3 ft bgs).
								Total depth of borehole is 101.5 feet bgs.	101.5	
					105					
					110					
					115					

NEWGINT OMEGA.GPJ NEWGINT.GDT 4/22/14

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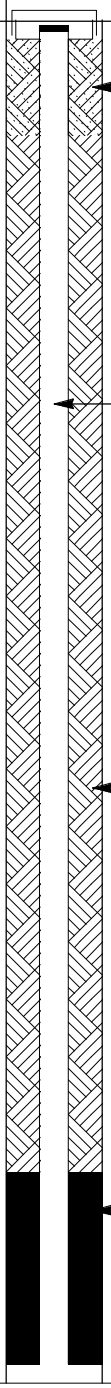
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER	10500-97768.OSS.DESIGN	**BORING/WELL NUMBER**	DPE-8
PROJECT NAME	Omega Chemical Facility	**DATE DRILLED**	1/10/2014
LOCATION	12511 Putnam St	**CASING TYPE/DIAMETER**	
DRILLING METHOD	Hollow Stem Auger	**SCREEN TYPE/SLOT**	20 slot, Sch 40 PVC screen
SAMPLING METHOD	5' continuous core	**GRAVEL PACK TYPE**	#2/12 Monterey Sand
GROUND SURFACE ELEVATION (FT MSL)		**GROUT TYPE/QUANTITY**	Portland Cement with 5% Bentonite
TOP OF CASING ELEVATION (FT MSL)		**STATIC WATER LEVEL (FT BTOC)**	
LOGGED BY	Will Grove	**GROUND WATER ELEVATION (FT MSL)**	
REMARKS	In the parking lot, northeast corner, screen 40-100 ft bgs		

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
0		60						ASPHALT is 0.3 feet thick	0.3
								ROADBASE is 0.3 feet thick.	0.6
						ML		SILT: very dark grayish brown (10YR 2/2); 65% silt, no plasticity, stiff; 20% clay; 15% sand, poorly graded, very fine, subangular to subrounded; minor white mottling, moist, no odor.	
0.4		48			5				6.0
						ML		SANDY SILT: light yellowish brown (10YR 6/4); 50% silt, no plasticity, stiff; 30% sand, poorly graded, very fine, subangular to subrounded; 20% clay; moist, no odor.	
									9.0
0.9		56			10	ML		SILT: yellowish brown (10YR 5/4); 50% silt, no plasticity, stiff; 30% clay; 20% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	
						CL			14.0
0		60			15	CL		CLAY dark yellowish brown (10YR 4/4); 50% clay, very stiff, low plasticity; 30% sand, poorly graded, very fine, subangular to subrounded; 20% silt; moist, no odor.	14.8
								CLAY dark yellowish brown (10YR 4/4); 90% clay, very stiff, low plasticity; 10% silt; moist, no odor.	
0		60			20	CL		CLAY dark yellowish brown (10YR 4/4); 65% clay, stiff, low plasticity; 25% sand, poorly graded, very fine to fine, subangular to subrounded; 10% silt; moist, no odor.	20.5
									21.7
						CL		CLAY dark yellowish brown (10YR 4/4); 70% clay, stiff, low plasticity; 20% silt; 10% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	
0		60			25				27.0
						ML		SILT: yellowish brown (10YR 5/4); 70% silt, low plasticity, stiff; 20% sand, poorly graded, very fine, subangular to subrounded; 10% clay; moist, no odor.	
									30.0
0		60			30	CL		CLAY: brown (10YR 3/4); 90% clay, very stiff, low plasticity; 10% silt; moist, no odor.	
					35				35.0

WELL DIAGRAM



Continued Next Page

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BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 10500-97768.OSS.DESIGN **BORING/WELL NUMBER** DPE-8
PROJECT NAME Omega Chemical Facility **DATE DRILLED** 1/10/2014

Continued from Previous Page

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0		60						CLAY: dark yellowish brown (10YR 4/4); 90% clay, very stiff, low plasticity; 10% silt; moist, no odor.		4 diameter, sch 40, PVC blank (0-40 ft bgs).
0		60			40	CL				#3 Monterey sand (35-101.5 ft bgs).
0		60			45				46.3	
						ML		SILT: dark yellowish brown (10YR 4/4); 60% silt, low plasticity, very stiff; 30% clay; 10% sand, poorly graded, very fine, subangular to subrounded; moist, no odor.	47.0	
								CLAY: brown (10YR 4/3); 90% clay, very stiff, low plasticity; 10% silt; moist, no odor.		
0		60			50	CL				
									54.0	
						SM		SILTY SAND: yellowish brown (10YR 5/4); 60% sand, poorly graded, very fine to fine, subangular to subrounded; 30% silt, no plasticity; 10% clay; dense, moist, no odor.	55.0	
0		60			55	CL		CLAY: brown (10YR 4/3); 90% clay, very stiff, low plasticity; 10% silt; moist, no odor.	57.2	
						SM		SILTY SAND: yellowish brown (10YR 5/4); 60% sand, poorly graded, very fine to fine, subangular to subrounded; 30% silt, no plasticity; 10% clay; dense, moist, no odor.	60.0	
0		60			60			CLAY: brown (10YR 4/3); 70% clay, stiff, low plasticity; 30% silt; very solid, moist, no odor. 63'-64' heavy white mottling.		
0		46			65	CL		CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.		
0		60			70					4 diameter, 0.020, Sch. 40 SS wire wrap screen (40-100 ft bgs)
					75				75.0	

Continued Next Page

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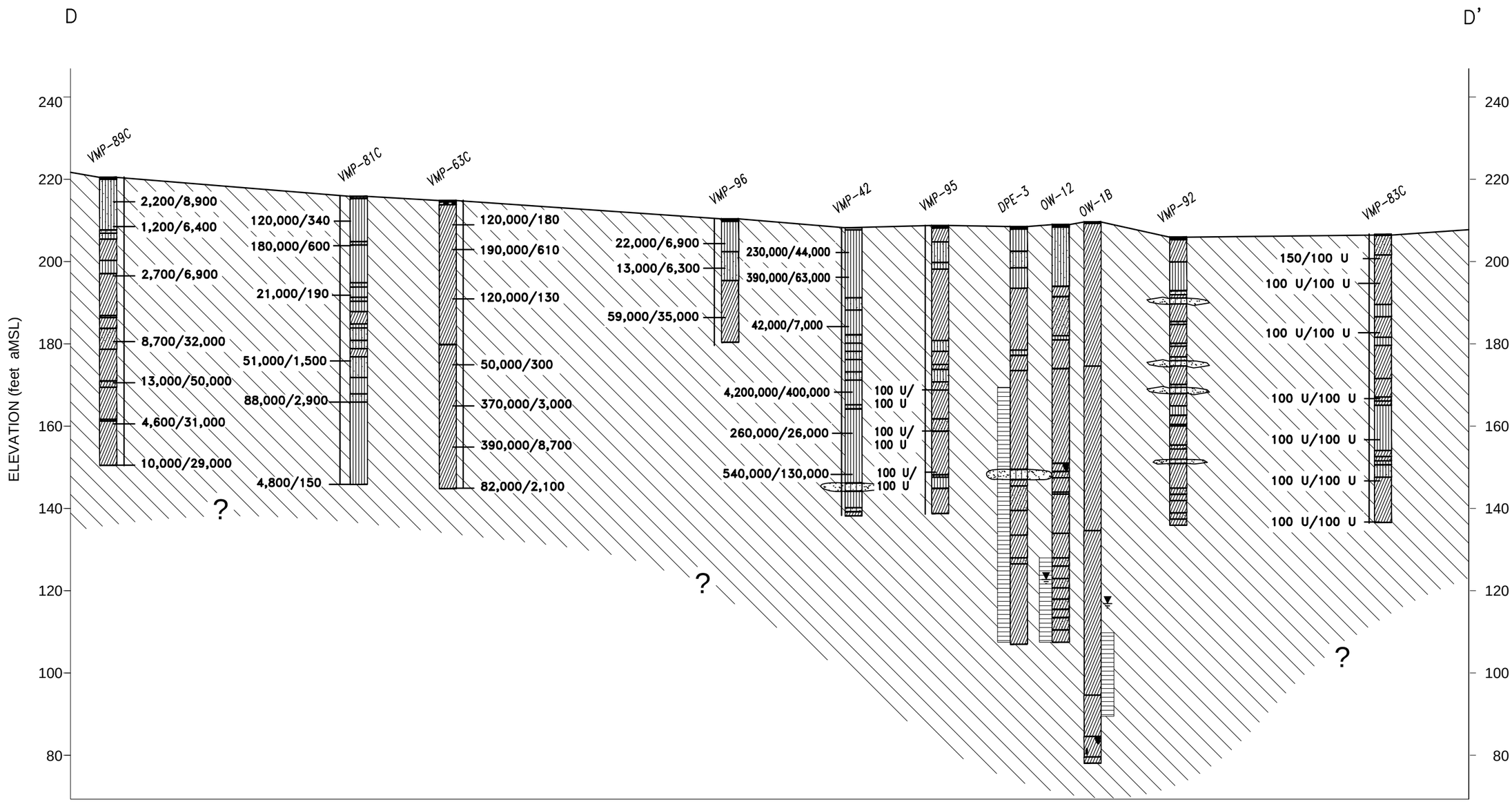
BORING/WELL CONSTRUCTION LOG

PROJECT NUMBER 10500-97768.OSS.DESIGN **BORING/WELL NUMBER** DPE-8
PROJECT NAME Omega Chemical Facility **DATE DRILLED** 1/10/2014

Continued from Previous Page

PID (ppm)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	DEPTH (ft. bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
0		60				CL		CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.		
0		60			80					4 diameter, 0.020, Sch. 40 SS wire wrap screen (40-100 ft bgs).
						CL		GRAVELLY CLAY: brown (10YR 4/3); 50% clay, low plasticity, stiff; 15% silt; 20% gravel, poorly graded, fine, subangular to subrounded; 15% sand, poorly graded, very fine to fine, subangular to subrounded; moist, no odor.	82.0	
2.7		60			85	CL		CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.	84.0	#3 Monterey sand (35-101.5 ft bgs).
1		57			90					
						CL		SANDY CLAY: dark brown (10YR 3/3); 65% clay, low plasticity, stiff; 65% sand, poorly graded, very fine, subangular to subrounded; wet, no odor.	93.0	
0		60			95	CL		CLAY: brown (10YR 4/3); 100% clay, hard, low plasticity; very solid, moist, no odor.	94.3	
					100	CL		GRAVELLY CLAY: brown (10YR 4/3); 65% clay, low plasticity, stiff; 20% gravel, poorly graded, fine, subangular to subrounded; 15% sand, poorly graded, very fine to fine, subangular to subrounded; wet, no odor.	98.5	Well cap (100-100.3 ft bgs).
								Total depth of borehole is 101.5 feet bgs.	101.5	
					105					
					110					
					115					



LEGEND

Gravel	Clayey Gravel	Sand	Silty Sand	Clayey Sand	Water Level	**150/100 U** PCE / TCE Concentration (µg/m³)
Gravelly Clay	Clay	Gravelly Sand	Silt	Clayey Silt or Silty Clay	Well Screen	U - Not detected at detection limit
						aMSL - above Mean Sea Level

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OMEGA
LITHOLOGIC CROSS-SECTION
D TO D'

DATE: Aug 15, 2014 7:31am XREFS:
DWG: P:\CAMBRIA\omega\sections\section d-d'.dwg USER: cezeauxjs

ATTACHMENT F

Well-Pair Time Series Hydrographs

Figure 2
Omega Chemical Superfund Site
OW-1 and OW-1b Well Hydrographs
2004 to 2016

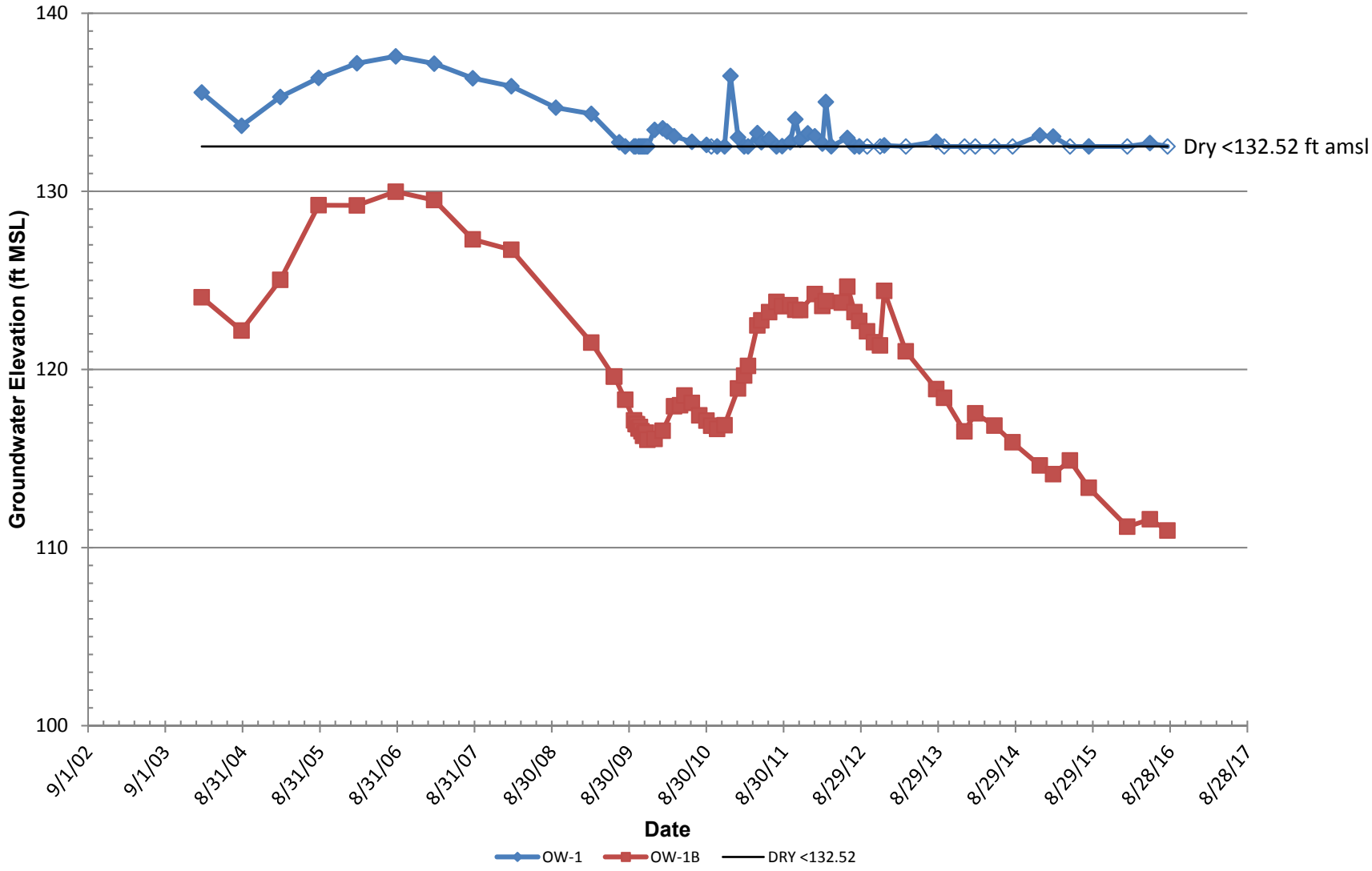


Figure 3
Omega Chemical Superfund Site
OW-3a and OW-3b Well Hydrographs
2004 to 2016

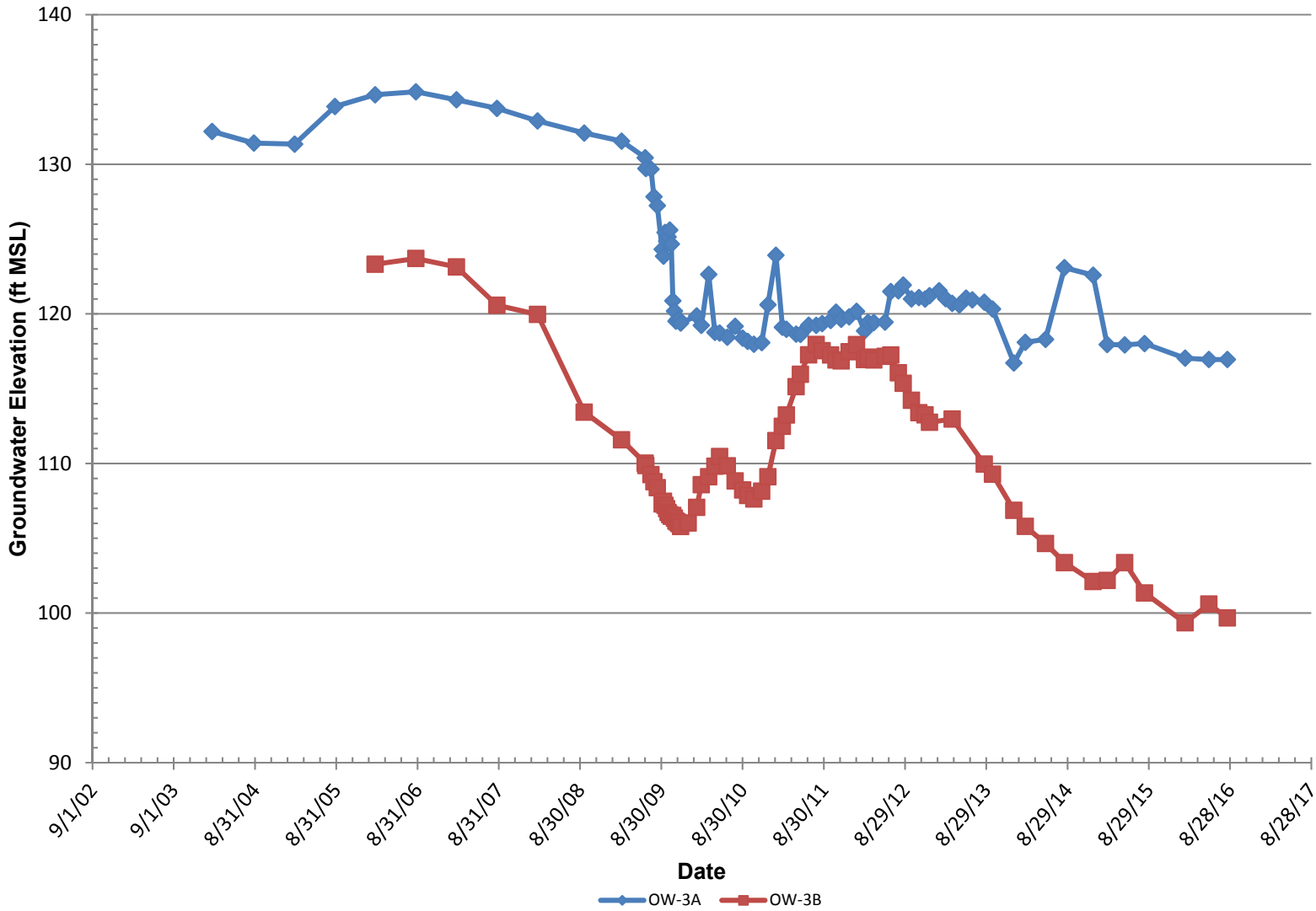


Figure 4
Omega Chemical Superfund Site
OW-4a and OW-4b Well Hydrographs
2004 to 2016

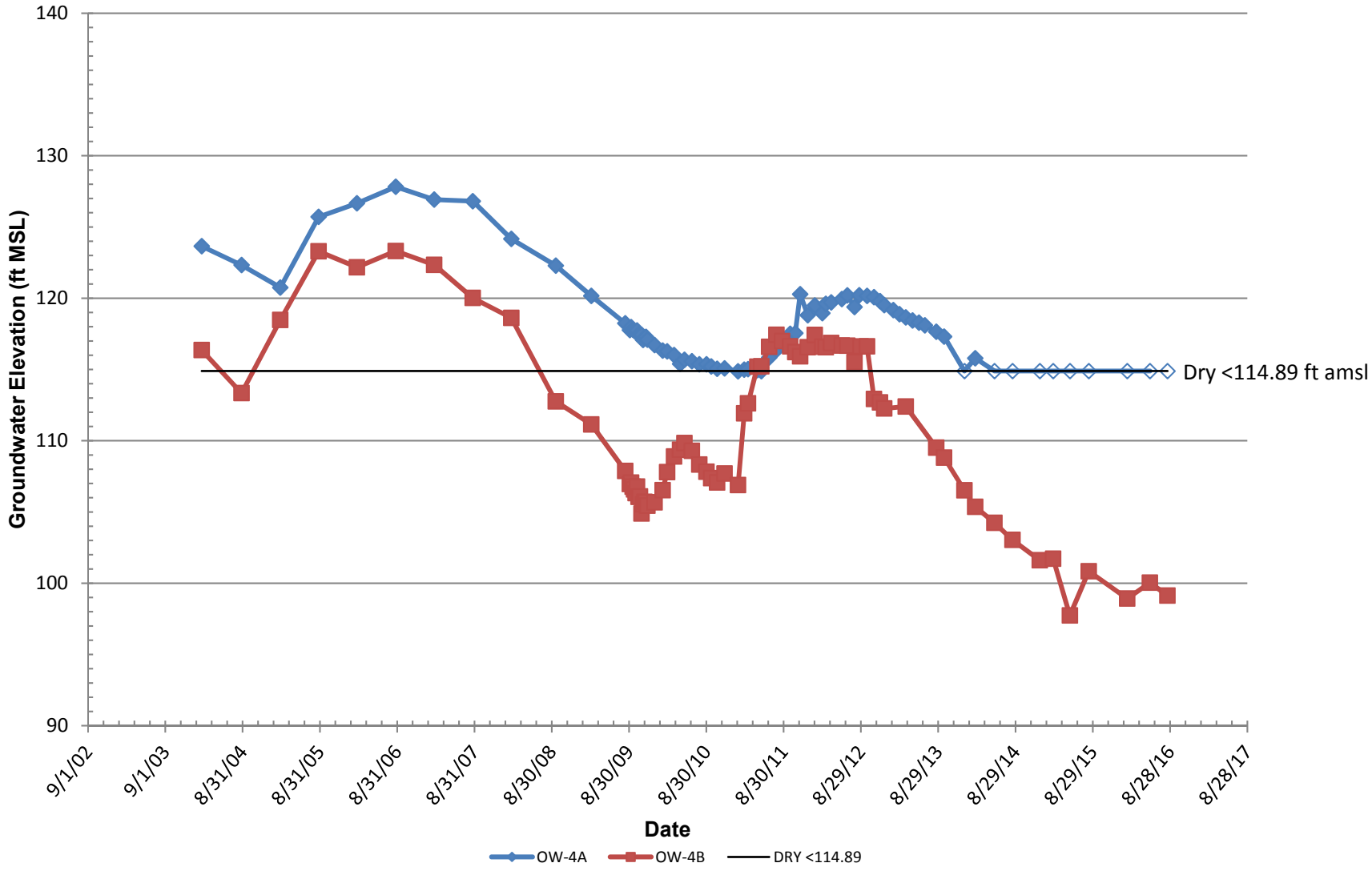
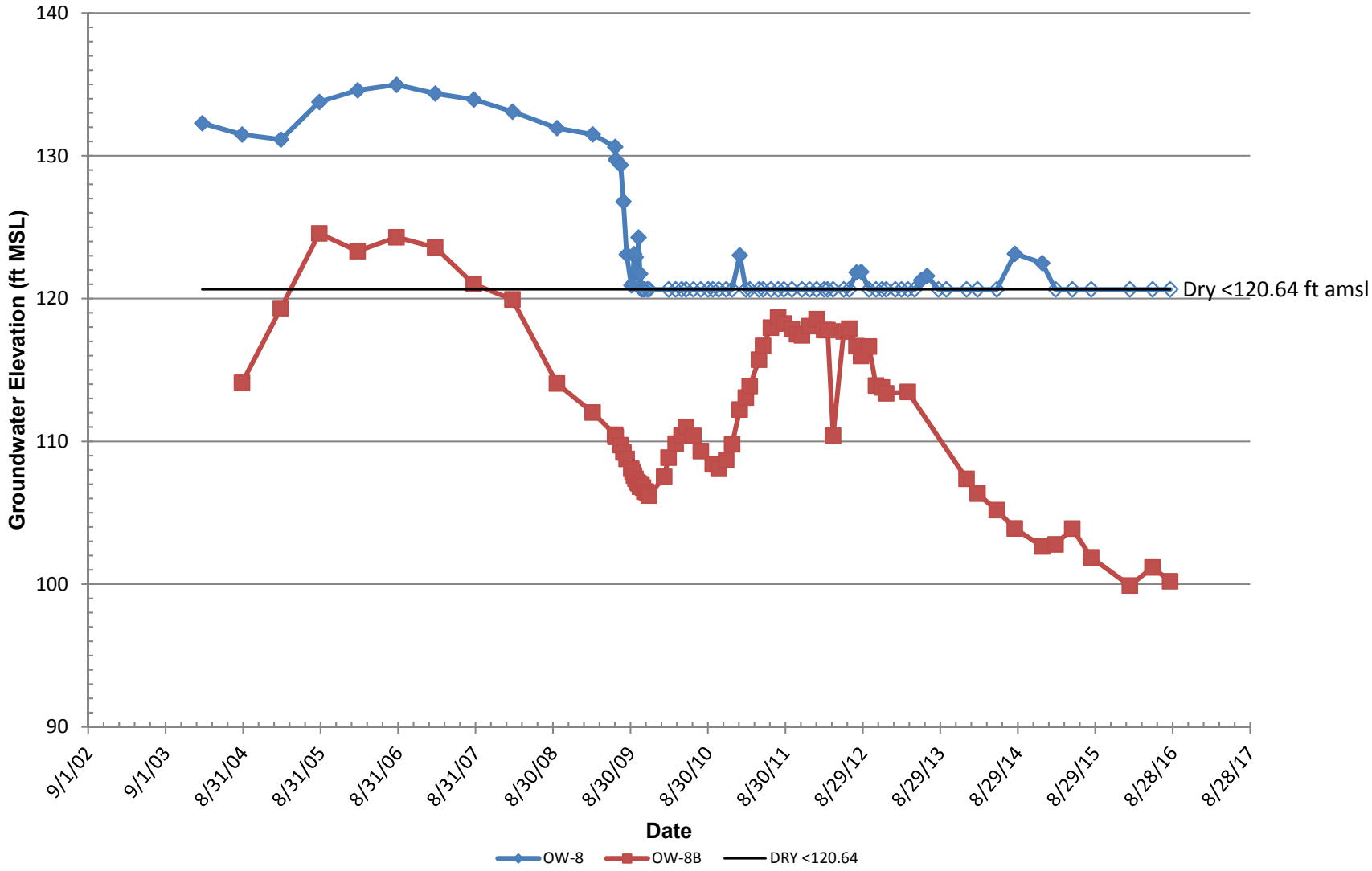


Figure 5
Omega Chemical Superfund Site
OW-8 and OW-8b Well Hydrographs
2004 to 2016



ATTACHMENT G

Water Level Contours and Analysis Memos (1Q16, 2Q16, and 3Q16)

Memorandum

To: *Jaime Dinello, de maximis, inc.*

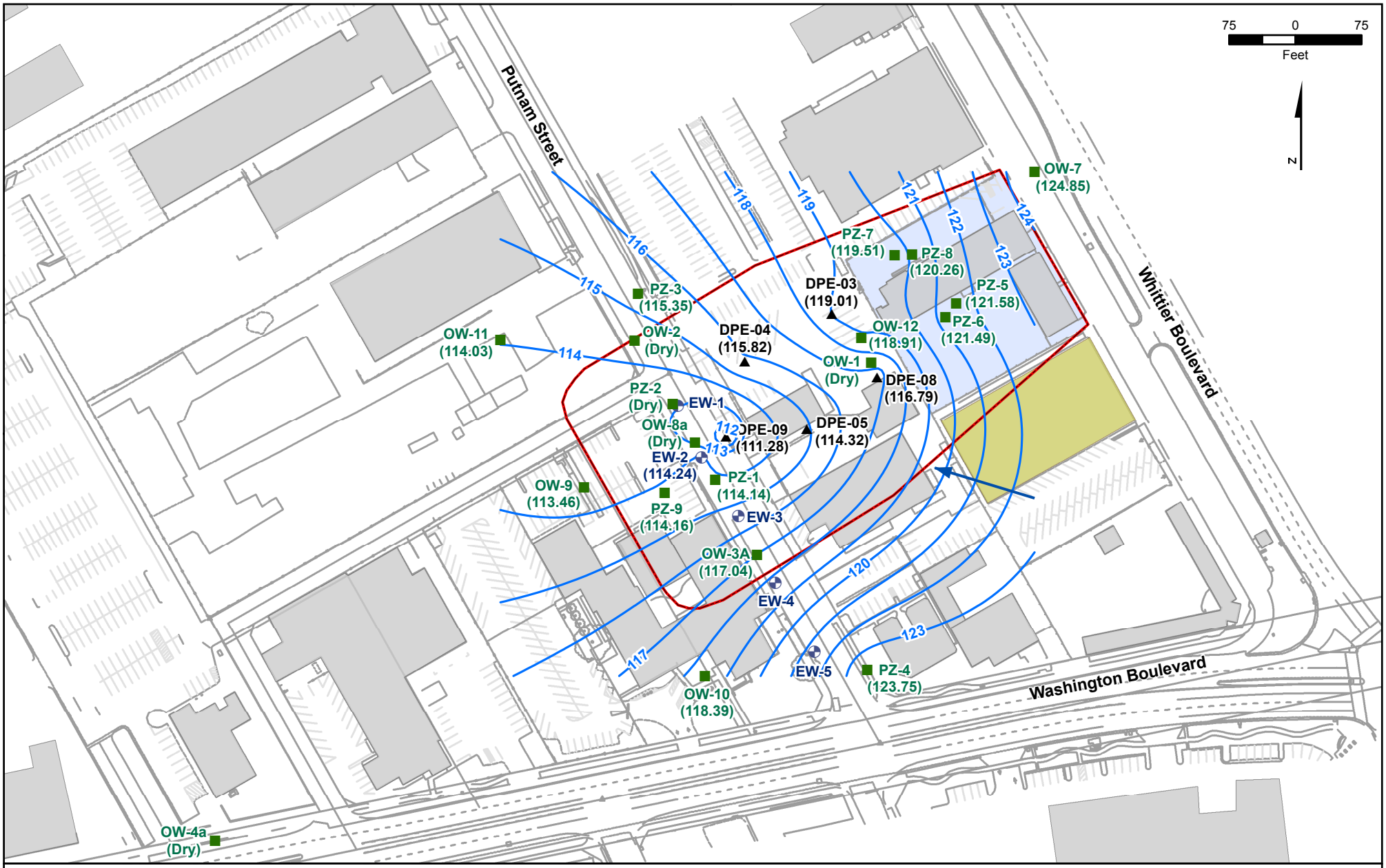
From: *Michael Hoffman*
Sharon Wallin

Date: *April 27, 2016*

Subject: *Omega Groundwater Elevations – February 8, 2016*

This memorandum provides and discusses the First Quarter 2016 (1Q2016) groundwater elevation contours based on the February 8, 2016 groundwater monitoring gauging activities, and the response of the local groundwater table to the Omega Groundwater Treatment System (GWTS) operation.

The attached groundwater elevation contour map (Figure 1) was developed utilizing the recent February 8, 2016 water level measurements and the extraction well (EW) and dual-phase extraction well (DPE) average weekly pumping rates from February 3rd to February 10th, 2016. The contour map demonstrates that flow is primarily converging on dual phase extraction well DPE-09, with minor water table depressions around DPE-03, DPE-04 and DPE-08. DPE-09 had the highest average weekly pumping rate at 2.25 gallons per minute (gpm) during the week water level measurements were collected. The cone of depression generated by the extraction and DPE wells extends approximately 75 feet down gradient from DPE-09. Upgradient well OW-7 is located outside of the area influenced by groundwater extraction, and groundwater flow appears to be to the west-southwest in this area. The cone of depression in 1Q2016 has decreased when compared to the prior August 10th, 2015 groundwater elevation contour map. This decrease is due to the total extraction and DPE well array average weekly pumping rate decreasing from 6.4 gpm in 3Q2015 to 5.3 gpm in 1Q2016. This decrease in average pumping rate is due to consistently declining water levels due to both the ongoing drought in southern California and the Omega groundwater extraction.



Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Shallow Observation Well / Piezometer

CDM Smith

Omega Chemical

Groundwater Contour Map

February 8, 2016

Figure 1

Memorandum

To: *Jaime Dinello, de maximis, inc.*

From: *Michael Hoffman*
Sharon Wallin

Date: *July 22, 2016*

Subject: *Omega Groundwater Elevations – May 25, 2016*

This memorandum provides and discusses the Second Quarter 2016 (2Q2016) groundwater elevation contours based on the May 25, 2016 groundwater monitoring gauging activities, and the response of the local groundwater table to the Omega Groundwater Treatment System (GWTS) operation.

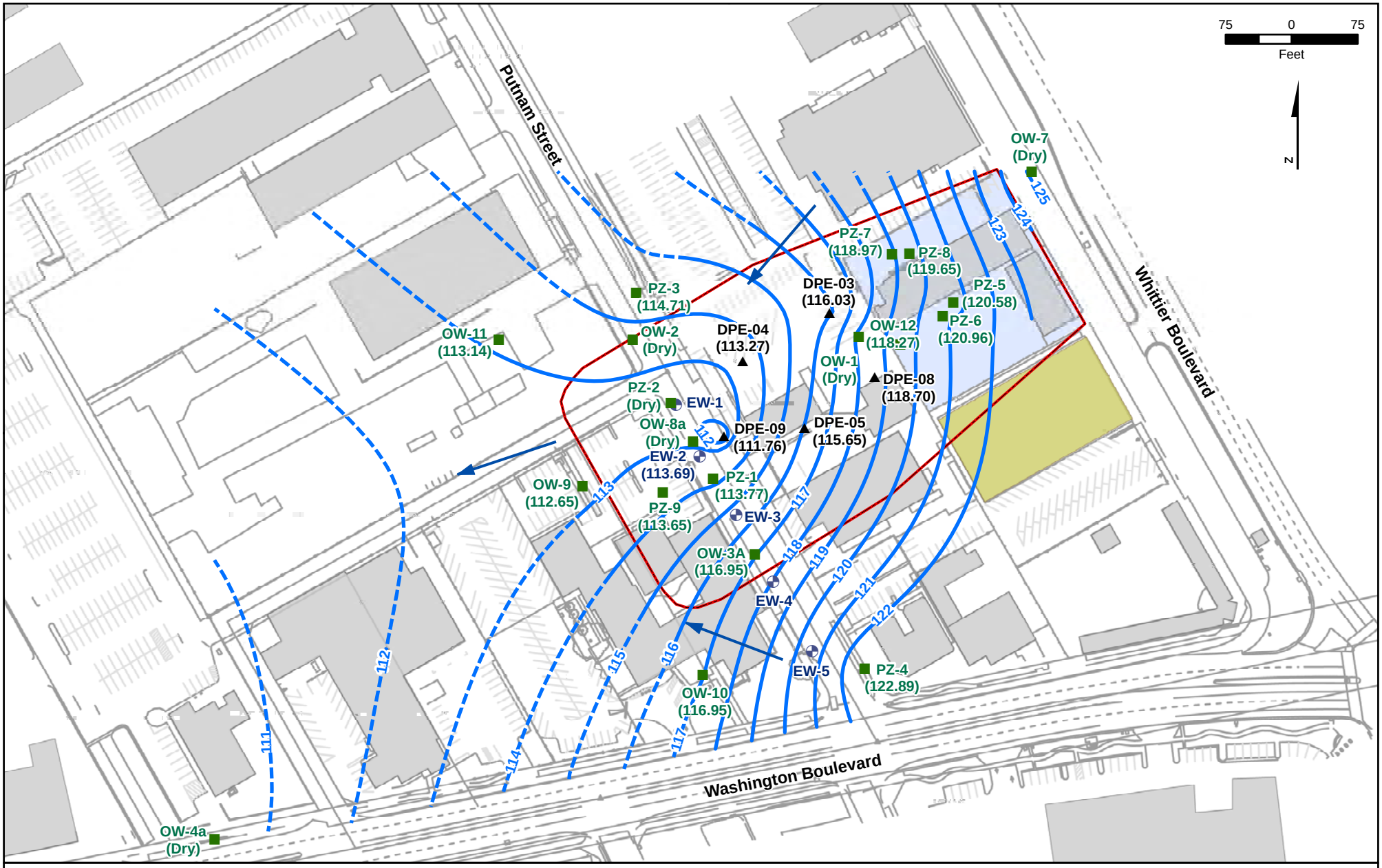
The attached groundwater elevation contour map (Figure 1) was developed utilizing the recent May 25, 2016 water level measurements and the extraction well (EW) and dual-phase extraction well (DPE) average weekly pumping rates from May 17th to May 25th, 2016. The contour map demonstrates that flow is primarily converging on dual phase extraction well DPE-09, with a minor water table depression around DPE-03. DPE-09 had the highest average weekly pumping rate at 1.4 gallons per minute (gpm) during the week water level measurements were collected. The cone of depression generated by the extraction and DPE wells extends approximately 40 feet down gradient from DPE-09.

The horizontal gradient at the Site is quite variable due to continued groundwater extraction from extraction and DPE wells. As shown from the contours on Figure 1, the gradient from the Omega property towards the points of extraction is on the order of 0.03 to 0.04 ft/ft. Data are sparse down-gradient of the Putnam Street extraction but, based on estimated contours, gradients in this down-gradient area unaffected by extraction appear to be an order of magnitude flatter.

Potential downward gradients are present at all four A-Zone/B-Zone well pairs, OW-1A/B, OW-3A/3B, OW-4A/4B, and OW-8A/8B, where the heads in the A-Zone wells are higher than the heads in the B-Zone wells. However, due to the confining layer separating the zones, and low volatile organic compounds concentrations detected in the B-Zone wells, it appears that confining layer effectively prevents the transmission of water from the A-Zone to the B-Zone. Hydrographs of the well pairs are provided in Figures 2 through 4.

Upgradient well OW-7 is now dry. Groundwater elevations declined an average of 0.69 feet in the observation wells and piezometers from February to May of 2016. The cone of depression in 2Q2016 has decreased when compared to the prior February 8th, 2016 groundwater elevation contour map. This decrease is due to the total extraction and DPE well array average weekly pumping rate decreasing from 5.3 gpm in 1Q2016 to 3.0 gpm in 2Q2016. This decrease in average

pumping rate is due to consistently declining water levels due to both the ongoing drought in southern California and the Omega groundwater extraction.



Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour - Dashed where Inferred (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Shallow Observation Well / Piezometer

CDM Smith

Omega Chemical

Groundwater Contour Map
May 25, 2016

Figure 1

Figure 2
Omega Chemical Superfund Site
OW-1 and OW-1b Well Hydrographs
2004 to 2016

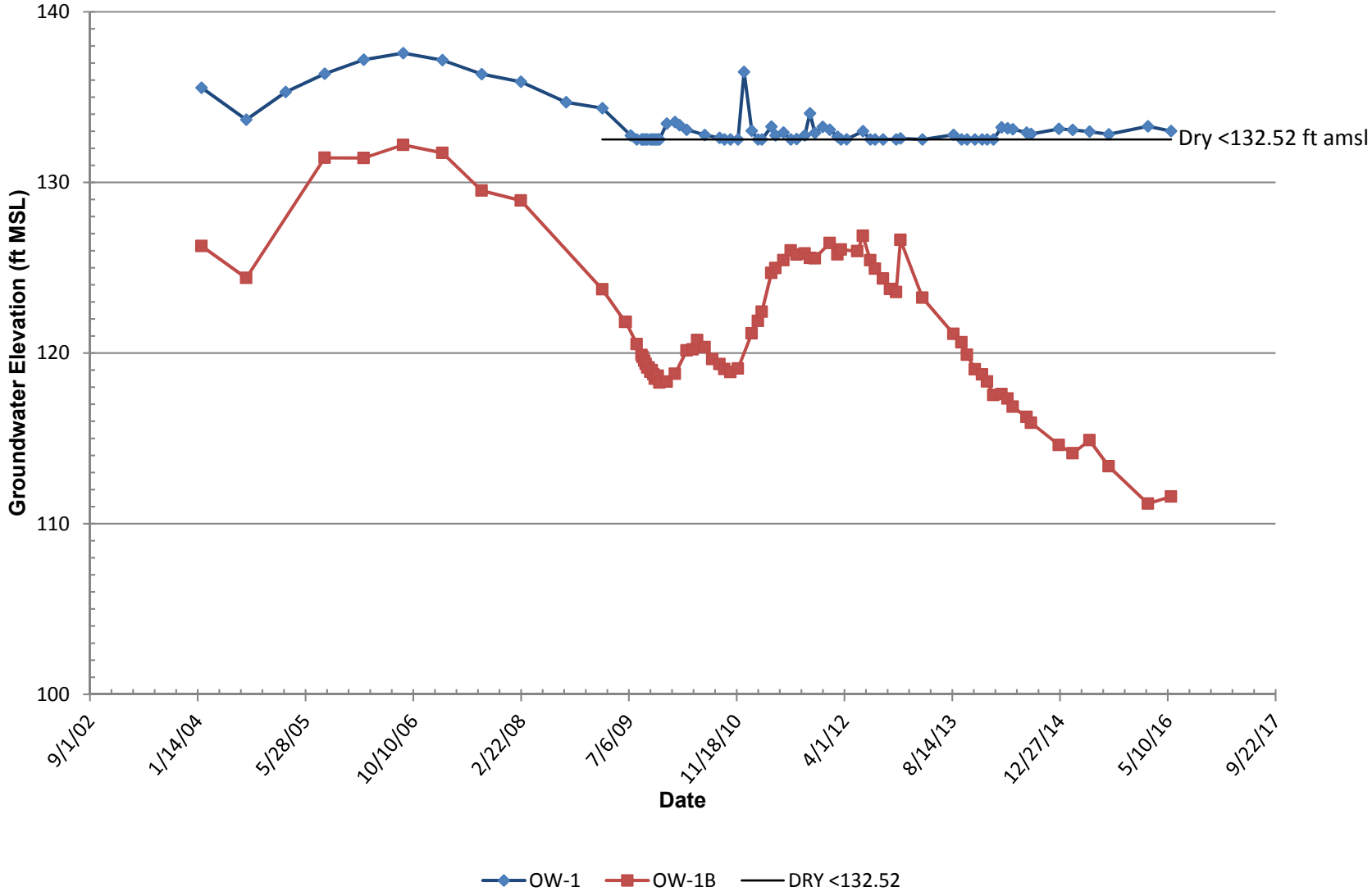


Figure 3
Omega Chemical Superfund Site
OW-3a and OW-3b Well Hydrographs
2004 to 2016

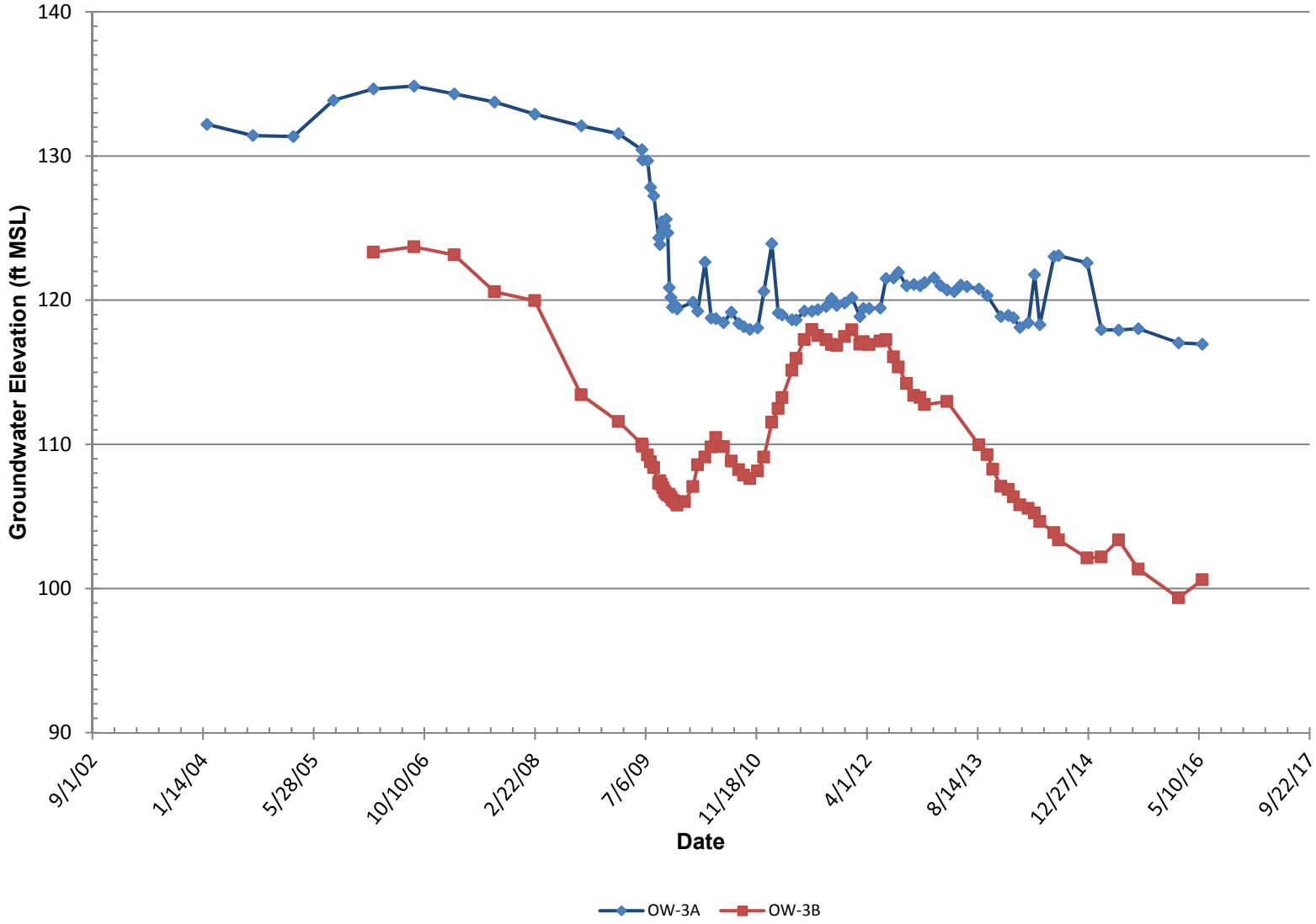


Figure 4
Omega Chemical Superfund Site
OW-4a and OW-4b Well Hydrographs
2004 to 2016

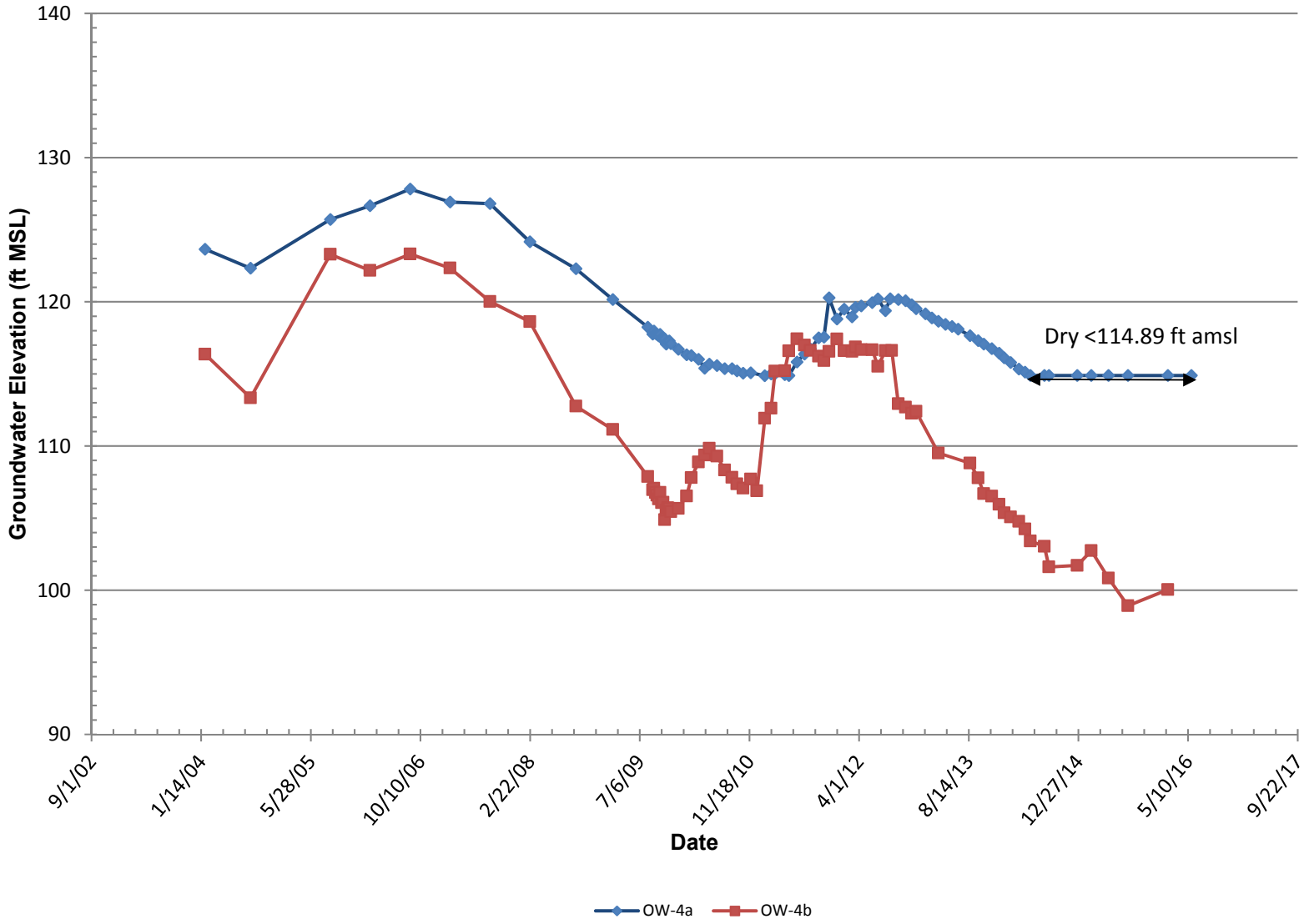
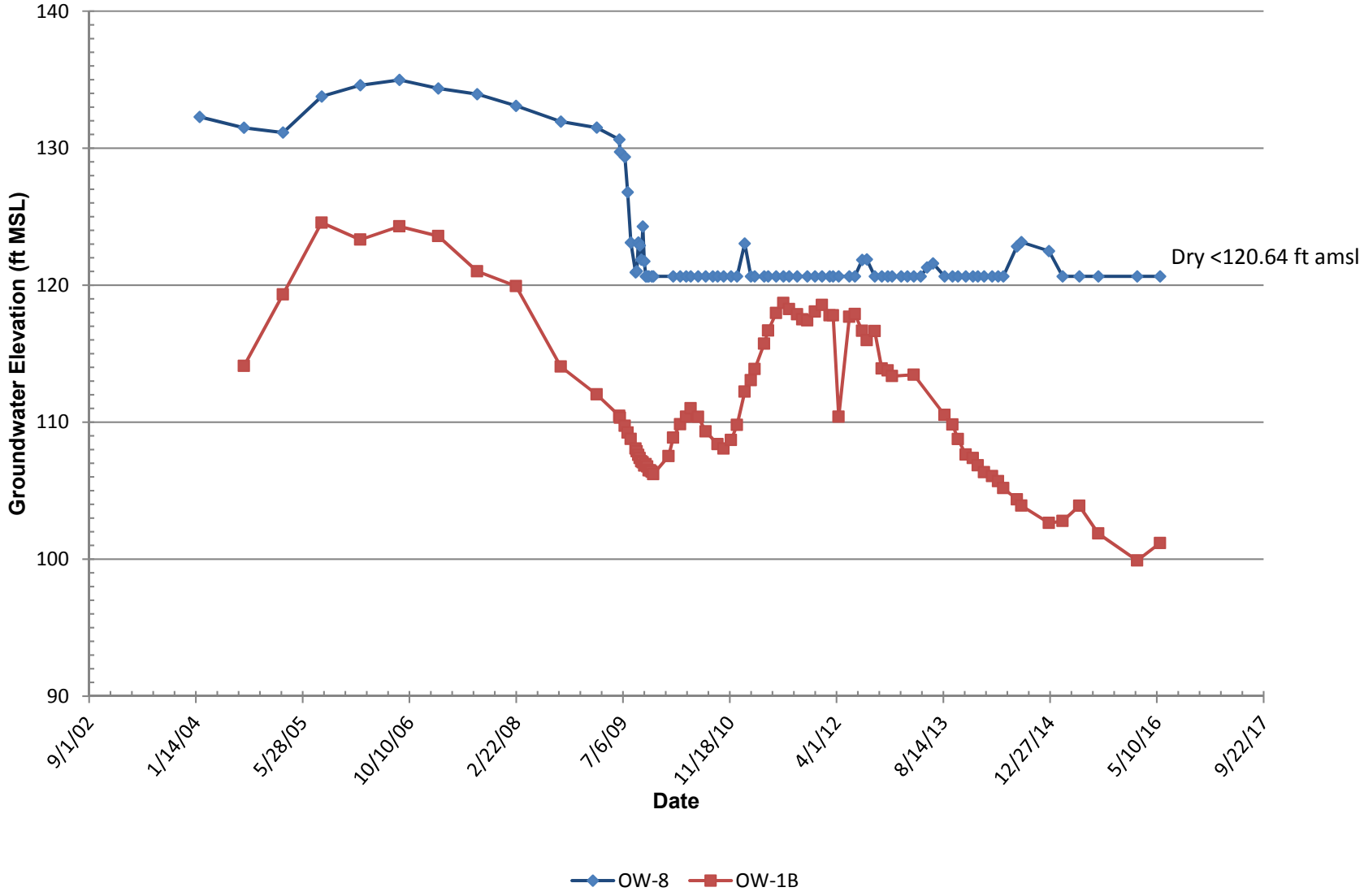


Figure 5
Omega Chemical Superfund Site
OW-8 and OW-8b Well Hydrographs
2004 to 2016



Memorandum

To: *Jaime Dinello, de maximis, inc.*

From: *Matt Gamache*
Sharon Wallin

Date: *October 24, 2016*

Subject: *Omega Groundwater Elevations – August 16, 2016*

This memorandum provides and discusses the Third Quarter 2016 (3Q2016) groundwater elevation contours based on the August 16, 2016 groundwater monitoring gauging activities, and the response of the local groundwater table to the Omega Groundwater Treatment System (GWTS) operation.

The groundwater elevation contour map (Figure 1) was developed utilizing the recent August 16, 2016 water level measurements and the extraction well (EW) and dual-phase extraction well (DPE) average pumping rates from August 14th to August 16th, 2016. The contour map demonstrates that flow is primarily converging on dual phase extraction well DPE-09, with minor-to-moderate water table depressions around DPE-03, DPE-04, and DPE-08. DPE-09 had the highest average pumping rate at 1.35 gallons per minute (gpm) during, and just prior to, the synoptic round of water level measurements. Overall, the total GWTS average extraction rate associated with the August 16th water level data is 2.76 gpm.

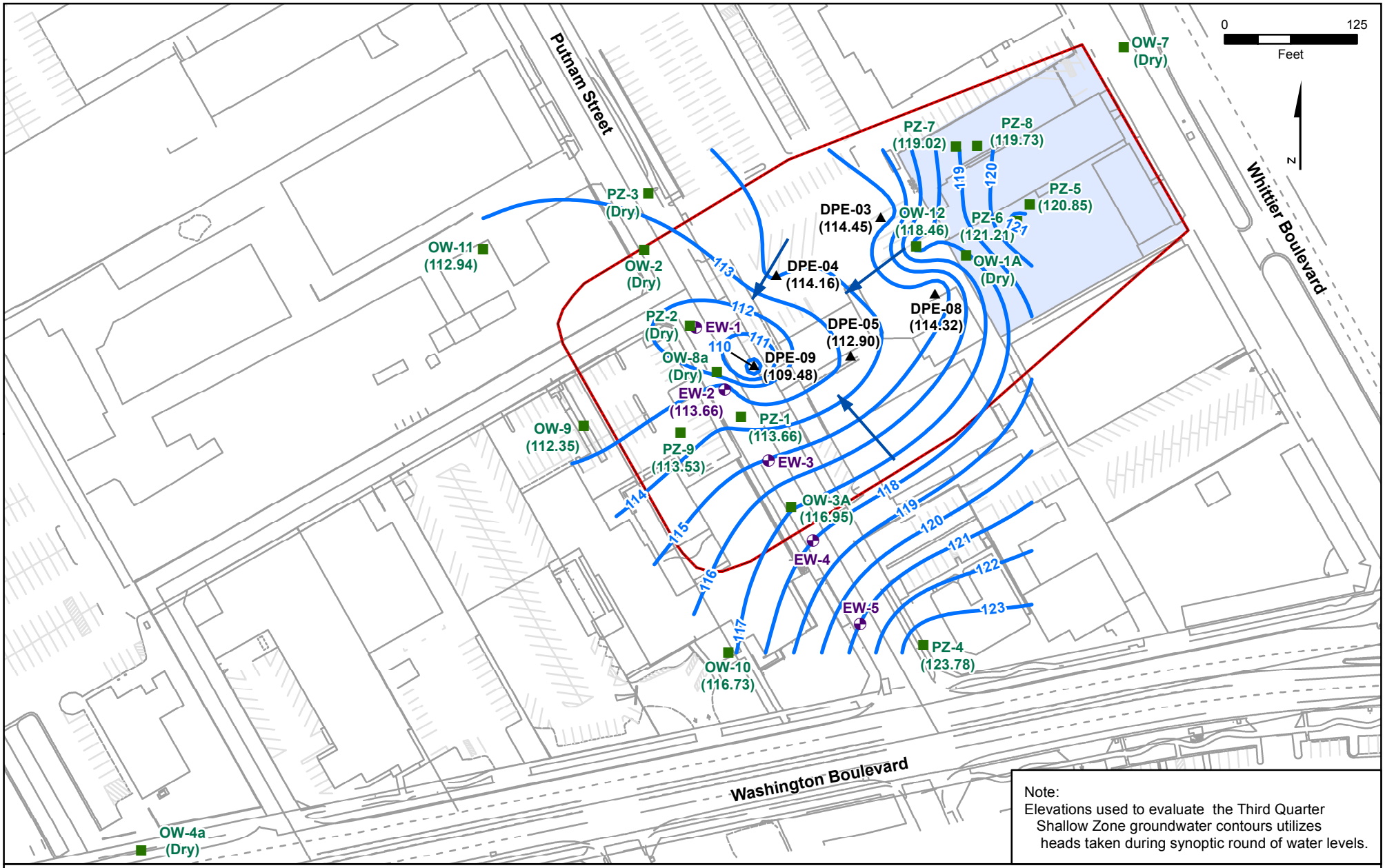
PZ-3, which had a water level elevation of 114.71 feet above mean sea level in May, 2016, was recorded as dry during this synoptic round. The water level measured in OW-12 is high compared to surrounding measured locations. The measurement at OW-12 was repeated in September 2016 to verify the accuracy of the first measurement; the results were repeated. The localized high point is likely due to the low permeability of the local clay lithology throughout the OW-12 boring depth, including surrounding the OW-12 screen interval which occurs at approximately 80 – 100 feet below ground surface (bgs). Nearby extraction wells DPE-03 and DPE-08 are also constructed almost entirely in clay within the saturated zone except for a small lens of silty sand occurring at approximately 59 – 62 feet bgs at DPE-03, and at approximately 54 – 60 feet bgs at DPE-08.

The horizontal gradient at the Site is quite variable due to continued groundwater extraction from extraction and DPE wells. As shown from the contours on Figure 1, the horizontal gradient from the Omega property towards the points of extraction is on the order of 0.03 to 0.04 ft/ft. Based on data collected at OW-3A, PZ-1 and DPE-09, the horizontal gradient along Putnam Street towards DPE-09 is approximately 0.05 ft/ft. Data from wells that were not dry are sparse down-gradient of

the Putnam Street extraction. In the vicinity of OW-9, groundwater flow direction is difficult to discern.

Potential downward gradients are present at the OW-3A/3B well pair, where the head in the A-Zone well is higher than the head in the B-Zone well. The shallow wells in the OW-1A/1B, OW-4A/4B, and OW-8A/8B pairs were dry in August 2016. However, due to the confining layer separating the zones, and low volatile organic compounds concentrations detected in the B-Zone wells, it appears that confining layers effectively prevent the migration of water from the A-Zone to the B-Zone. Hydrographs of the well pairs are provided in Figures 2 through 5.

The area covered by the cone of depression in 3Q2016 is similar in size to what was observed and documented in 2Q2016, though the magnitude of drawdowns (as shown by the close spacing of the contour lines) at the DPE wells is larger in Figure 1 as compared to the 2Q2016 contours. This apparent difference is likely an artifact due to lower pumping water levels at DPE-03 and DPE-08 during the August monitoring event compared to the pumping water levels measured in 2Q2016.



Note:
Elevations used to evaluate the Third Quarter Shallow Zone groundwater contours utilizes heads taken during synoptic round of water levels.

Legend

- Former Omega Chemical Property
- Phase Ia Area
- Existing Building
- Former Building
- Groundwater Elevation Contour (Feet above mean sea level)
- Groundwater Flow Direction
- Extraction Well
- Dual Phase Extraction Well
- Shallow Observation Well / Piezometer

CDM Smith

Omega Chemical
Shallow Zone
Groundwater Contour Map
August 16, 2016

Figure 1

Figure 2
Omega Chemical Superfund Site
OW-1 and OW-1b Well Hydrographs
2004 to 2016

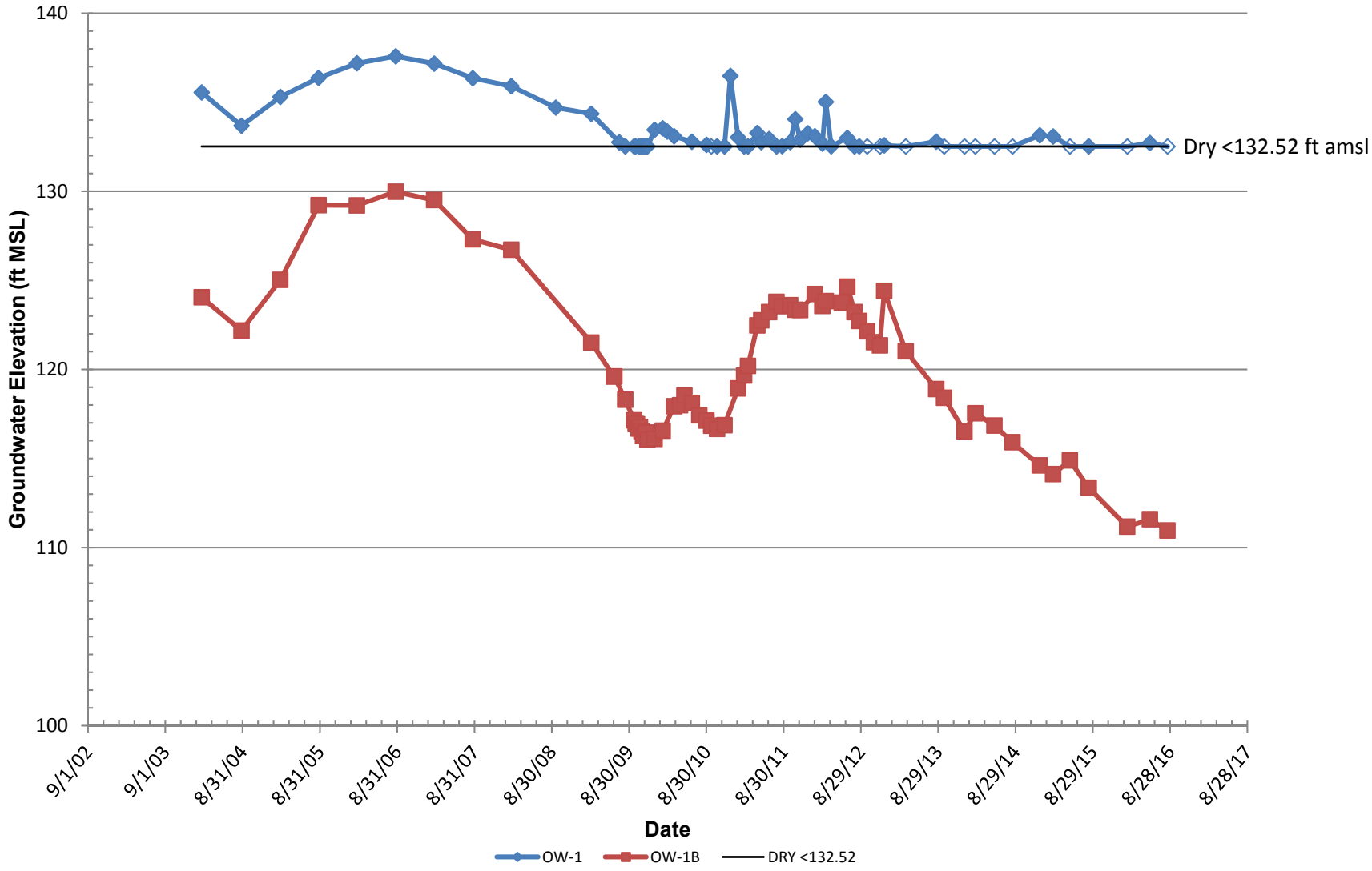


Figure 3
Omega Chemical Superfund Site
OW-3a and OW-3b Well Hydrographs
2004 to 2016

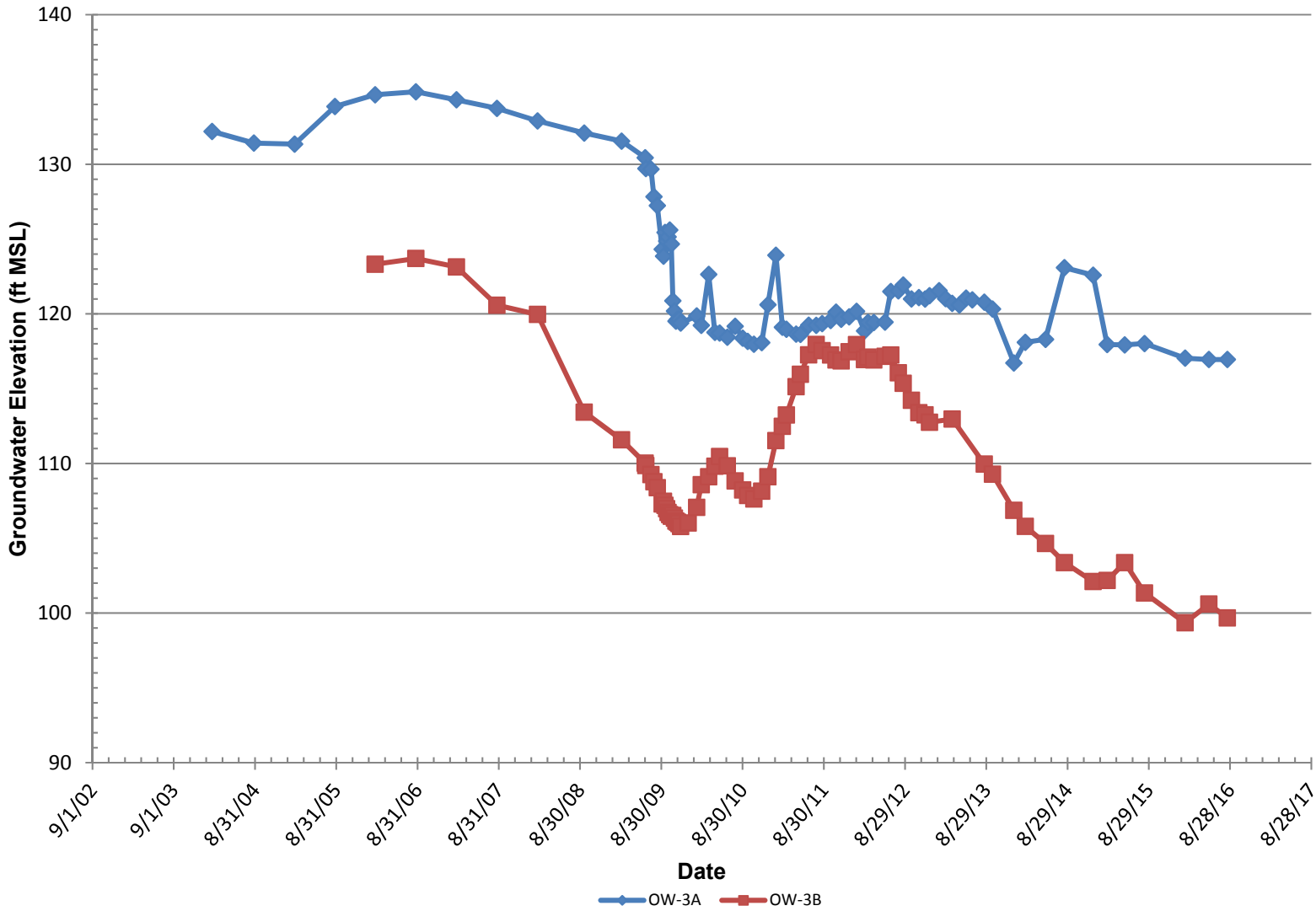


Figure 4
Omega Chemical Superfund Site
OW-4a and OW-4b Well Hydrographs
2004 to 2016

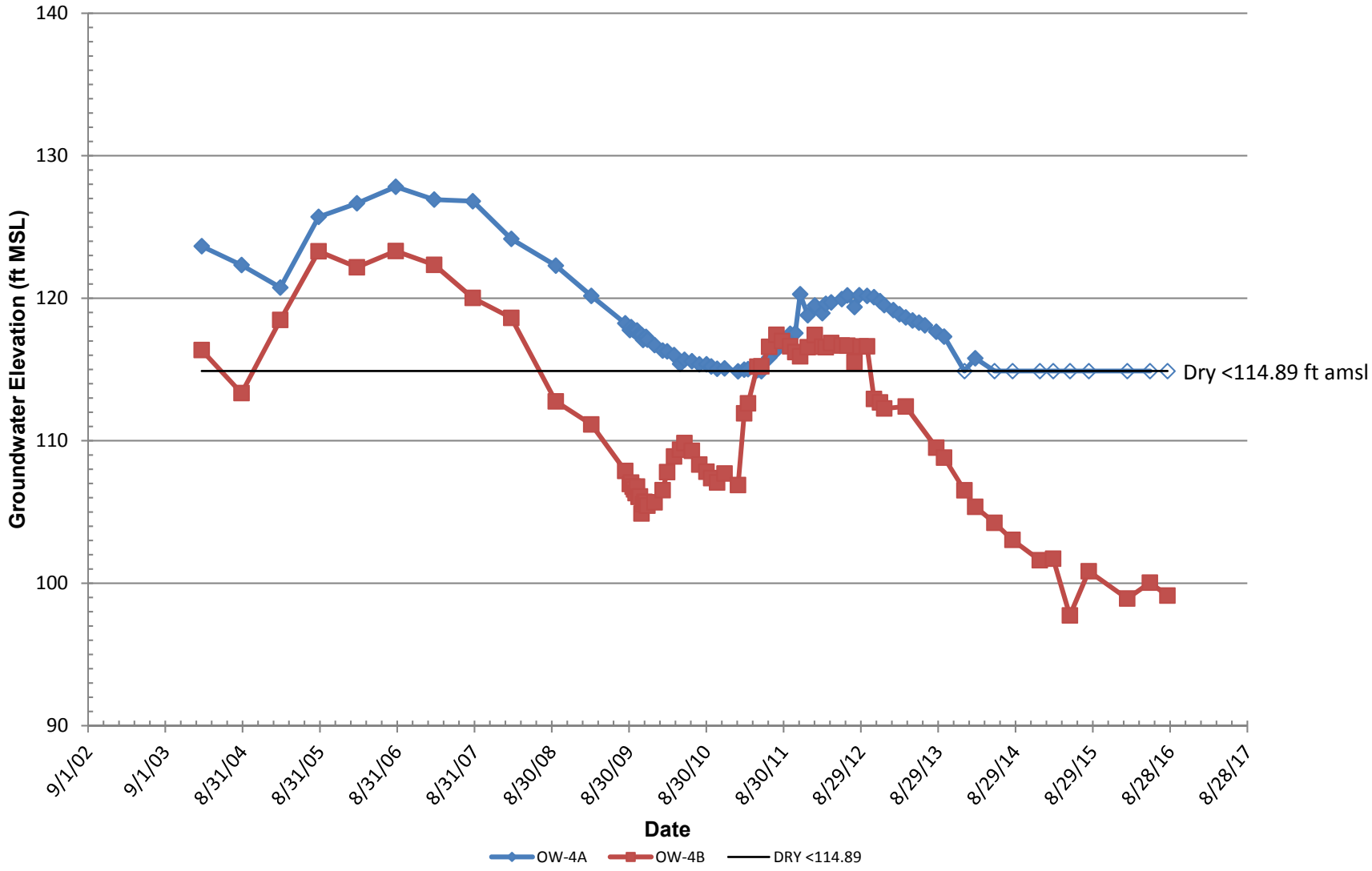
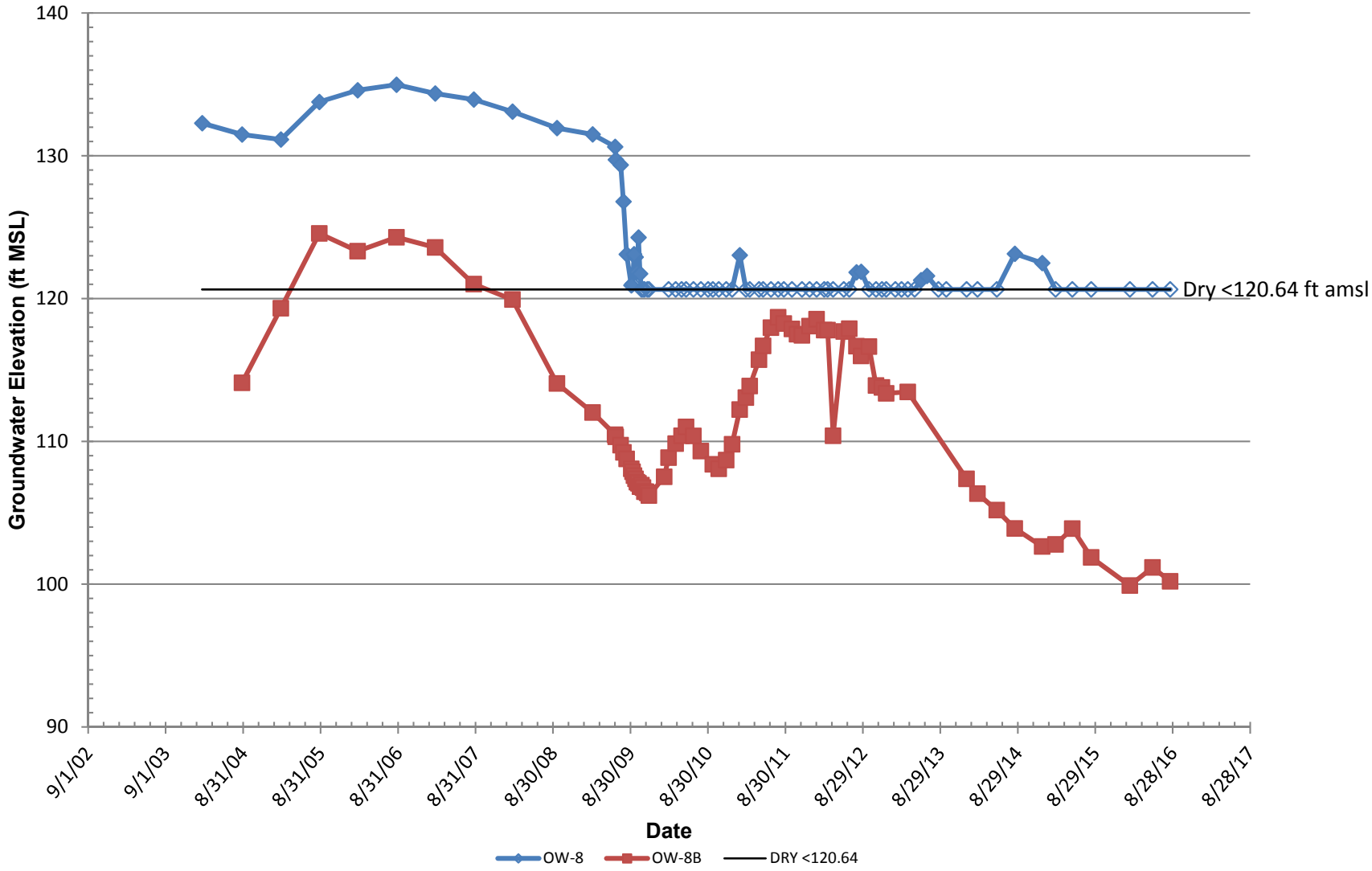


Figure 5
Omega Chemical Superfund Site
OW-8 and OW-8b Well Hydrographs
2004 to 2016



ATTACHMENT H

Model Calibration and Simulated Flow

Memorandum

To: *Ed Modiano – de maximis*

From: *Matt Gamache, CDM Smith*

Date: *October 26, 2016*

Subject: *2016 Omega Capture Zone Model Update*

The purpose for this memorandum is to describe the 2016 updates to the groundwater flow model used to support the site conceptual model (SCM) for hydraulic containment of the OU-1 source area. The model was extended in time from 7/1/2015 to 8/16/2016 by incorporating groundwater data collected since the last update, which was documented in the December 17, 2015 technical memorandum titled *Omega Capture Zone Model Update* (CDM Smith, 2015) for the Omega Non-Time Critical Removal Action plan (CDM Smith, 2012). The model was then used to assess hydraulic containment under June 2016 hydraulic and operating conditions.

The parameters revised during this model update include the chronological period of the model (extended through 8/16/2016), the number of stress periods, extraction well pumping rates, boundary head conditions, and rainfall recharge. Hydraulic properties assigned to the model, which are depicted in Figure 1, were not changed during this update. Calibration was checked by comparing model results to water level data collected during the simulation period.

Simulated and measured heads were compared during the heuristic model calibration process. In general, the goodness of fit of the model calibration in the extension period (7/1/2015 through 8/16/2016) is similar to what was previously documented and, as a result, further refinement of the hydraulic property field was not necessary. Figures 2 through 31 include hydrographs comparing the simulated and observed water levels for all wells.

To match these trends, rainfall recharge applied to the water table in the model was varied with time according to hydrologic conditions and the observed lag times and general head boundary (GHB) heads were modulated based on water level elevations observed at OW-7, with the associated hydraulic conductances of each GHB cell held at the originally interpolated value. Rainfall recharge was set to 1.5 inches per year from the beginning of the simulation through 9/30/2010, then 6 inches per year for the wet period through 3/31/2011, then 0.4 inches per year through 6/30/2015 and 0 inches per year for the extension period (7/1/2015 through 8/16/2016), reflective of the most extreme drought conditions.

Table 1 - August 2016 Simulated and Measured Water Level Elevations

Well	Simulated Head	Measured Head	Residual
	(Feet NAVD88)	(Feet NAVD88)	(Feet)
DPE-03	116.8	114.5	2.4
DPE-04	113.3	114.2	-0.8
DPE-05	112.2	112.9	-0.7
DPE-08	115.8	114.3	1.5
DPE-09	112.7	109.5	3.2
OW-1A	Dry	Dry	-
OW-2	Dry	Dry	-
OW-3A	115.7	117.0	-1.3
OW-4A	Dry	Dry	-
OW-7	Dry	Dry	-
OW-9	113.7	112.4	1.3
OW-10	115.3	116.7	-1.4
OW-11	113.8	112.9	0.8
OW-12	116.7	118.5	-1.8
PZ-1	113.5	113.7	-0.1
PZ-2	Dry	Dry	-
PZ-3	Dry	Dry	-
PZ-4	117.9	123.8	-5.9
PZ-5	122.2	120.9	1.4
PZ-6	122.1	121.2	0.9
PZ-7	119.1	119.0	0.1
PZ-8	119.3	119.7	-0.4
PZ-9	113.7	113.5	0.2

Figure 32 includes a scatter plot of observed (horizontal axis) and simulated (vertical axis) heads at the observation wells, piezometers, and DPE wells used during calibration. Deviation from the 45-degree line (shown as a red line) indicates model bias either low or high as compared to observed water levels. The root mean square error (RMS), which is the average of the squared differences in measured and simulated heads, is 1.7 feet, or 7.3% of the range of observed values. In general, the RMS should be less than 10% of the observed head range (Anderson and Woessner, 1992). Other calibration statistics are listed below:

- Mean Error (ME) = -0.20 feet; *this is the mean difference between measured and simulated heads.*
- Mean Absolute Error (MAE) = 1.3 feet; *this is the mean of the absolute value of the differences in measured and simulated heads.*
- Minimum Residual = -7.1 feet

- Maximum Residual = 5.8 feet

The model calibration fits the field data within acceptable criteria and is useable for assessment of the system capture zone.

Simulated flow direction arrows and head contours for August 2016 are shown in Figure 33, along with the associated simulated zone of capture of the groundwater treatment system (GWTS). This zone of capture represents the water that would be captured by the GWTS if August 2016 conditions were held constant in perpetuity. Figure 34 shows the same simulated head contours along with posted head residuals (simulated head minus measure head for each well in feet), which are also included in Table 1. Observations based on review of the model results and the data are listed below:

- Pumping rates applied in August of 2016 (shown in Table 2) produce a capture zone that covers the area between Putnam Street and the source are on the Omega property. Despite the lower than historic GWTS pumping rates, this capture zone is similar to capture zones produced in previous reports because the aquifer has been nearly dewatered due to the continuing historic drought in Southern California. Comparison of simulated and observed water level elevations at OW-7 (Figure 2) show that the most recently observed water levels are the lowest on record and that 6 of the 23 wells shown in Table 1 were dry in August, 2016.

- These continuously dropping water level elevations have led to continuously dropping GWTS pumping rates as less water becomes available. That means that at any point in time during the drought, the flow into the system (through recharge) at the site is less than the flow out of the system through the extraction wells and the change in storage associated with this mismatch accounts for the drop in water level elevations. As such, it is impossible to represent these drought conditions as 'steady-state', which does not account for changes in aquifer storage. When this is attempted, the water imbalance between inputs and outputs causes the aquifer to become completely dewatered and is thus unrepresentative of actual conditions. In order to assess containment under current conditions, as has been requested by EPA, the transient simulation stress period associated with those conditions must be examined. MODPATH, which has previously been used to run particle tracks on steady-state simulation flow fields, cannot be used with a 'fixed' stress period flow field. For this reason, containment has been assessed through examination of flow direction arrows and water level elevation contours. As MODPATH-generated pathlines simply follow the direction of the flowfield, results are not expected to differ from those that would have been generated by MODPATH.

Table 2 - GWTS Pumping Rates, August 2016

Well	August 2016 Pumping Rate
	(gpm)
EW-1	0
EW-2	0
EW-3	0
EW-4	0
EW-5	0.1
DPE-3	0.1
DPE-4	0.5
DPE-5	0.5
DPE-8	0.2
DPE-9	1.4
Total	2.8

- A comparison of the simulated water level contours in Figures 33 and 34 and the interpreted water level contours in Figure 1 of the September 8, 2016 technical memorandum titled *Omega Groundwater Elevations – August 16, 2016* (CDM Smith, 2016) show two differences that require further explanation.

    - First, Figure 1 (CDM Smith, 2016) shows a more pronounced cone of depression around DPE-09 than what the model simulates (see Figures 33 and 34). The groundwater model is shown to be 3.2 feet high at DPE-09, but within one foot of measured data at the closest surrounding wells (DPE-4, DPE-5, and PZ-9). This is due to the model's representation of the aquifer as having uniform hydraulic conductivity throughout its vertical thickness, positioned atop an aquitard with uniform hydraulic conductivity. With the drought conditions, water levels have been lowered right to the interface between these two units, and water is likely being pumped at DPE-09, which is screened into portions of both the aquifer and the aquitard, from a thin, poorly productive, transition zone between aquifer and the underlying aquitard material. The differences are likely exacerbated by pump cycling, that could generate average pumping rates that are not consistent with the instantaneous rates reflected in the water level elevation data.

    - Second, Figure 1 (CDM Smith, 2016) shows the flow of water between PZ-4 and DPE-09 to be inwards and directly towards the pumping center and DPE-09, while simulated results indicate that water in the vicinity of PZ-4 would flow to the south of the pumping center and not be captured by the GWTS as shown in Figure 33. The time history of simulated and observed water level elevations at PZ-4 shown in Figure 14 indicates that the model typically underrepresents the

measured heads at this location, particularly during low water conditions. This difference appears to be the greatest it has ever been in August of 2016, where observed water level elevations actually rose. The cause of this discrepancy is unclear. Variation is model properties would likely not produce the required 5.9-foot head rise to match the data.

Based on the above, it is recommended that the interpreted contours be used as the first line of evidence with respect to containment, with the model simulations providing qualified support while the extreme drought persists.

References

Anderson, M.P. and Woessner, W.M., 1992. *Applied Groundwater Modeling,* Academic Press, Inc., San Diego, California, 381 p.

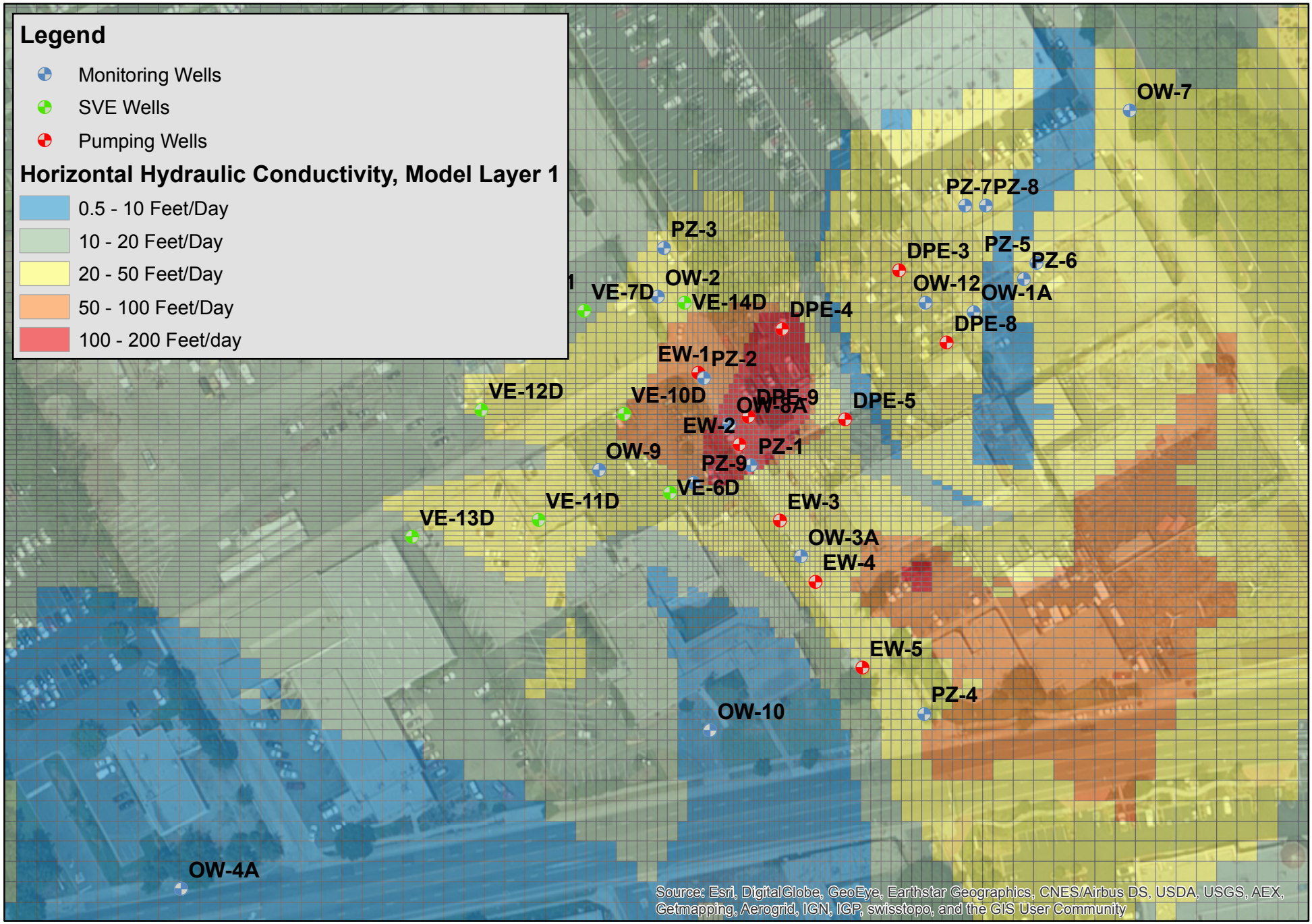
CDM, 2009. *Documentation of the Omega Non-Time Critical Removal Action Capture Zone Model*. September 14, 2009.

CDM Smith, 2012. *Omega Capture Zone Model Update.* June 1, 2012.

CDM Smith, 2014. *Aquifer Testing of Omega Chemical Full-Scale Soil Vapor Extraction Well DPE-04.* October 10, 2014.

CDM Smith, 2015. *Omega Capture Zone Model Update.* December 17, 2015.

CDM Smith, 2016. Omega Groundwater Elevations – August 16, 2016. September 8, 2016.



CDM Smith

0 50 100 200 Feet

N

Figure 1 - Horizontal Hydraulic Conductivity, Model Layer 1

Omega Chemical Facility
Capture Zone Model

Figure 2
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-2

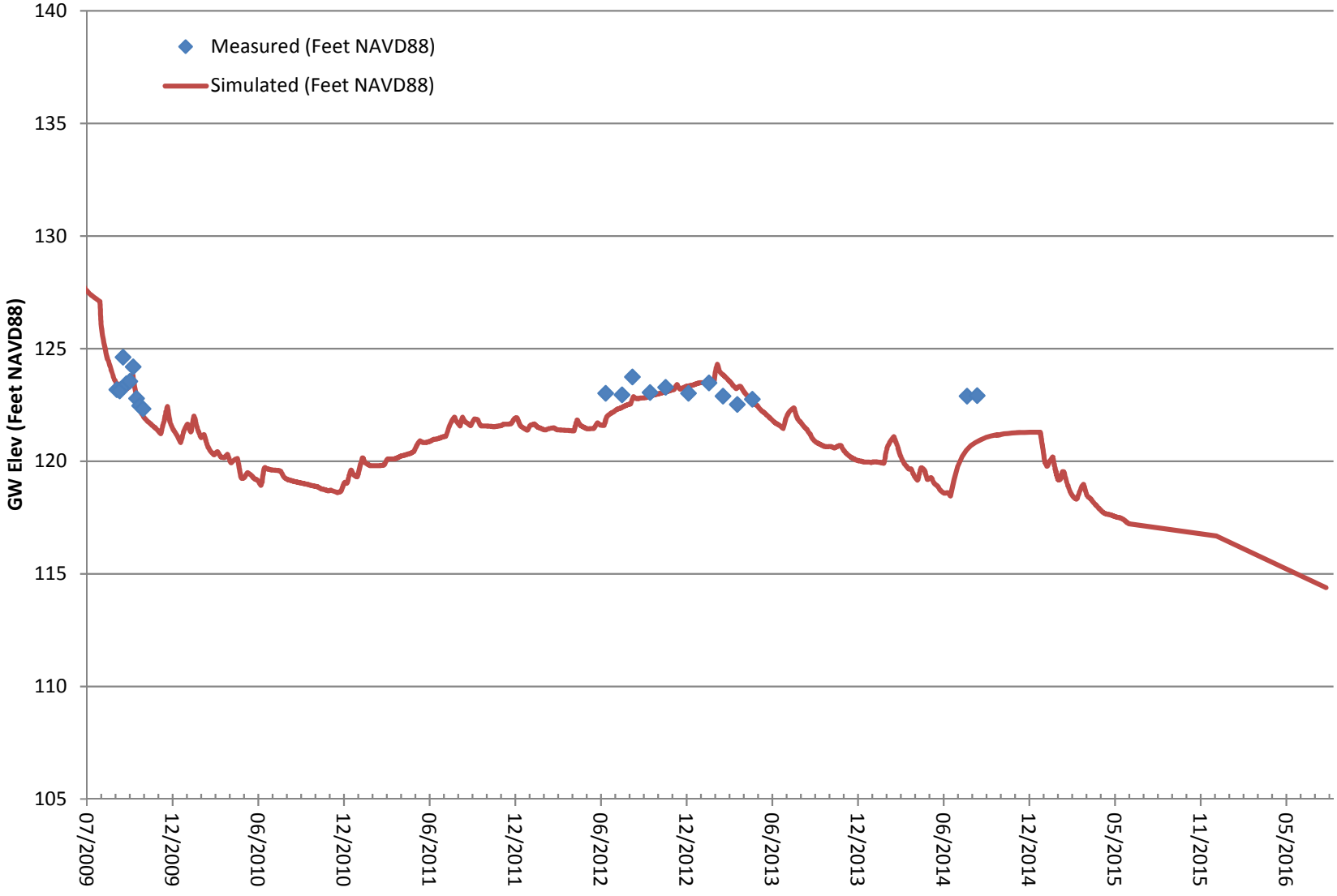


Figure 3
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-3

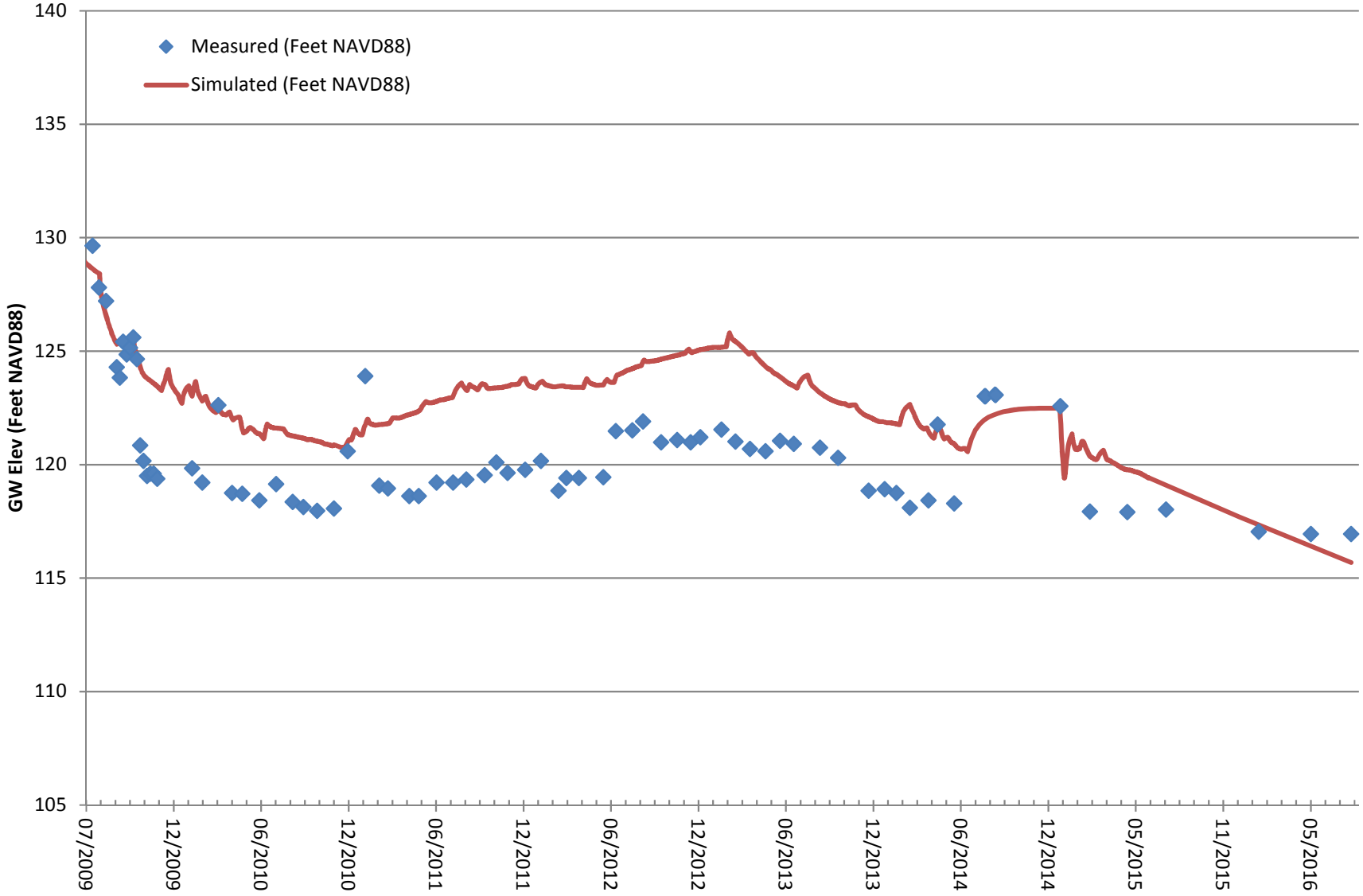


Figure 4
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-4a

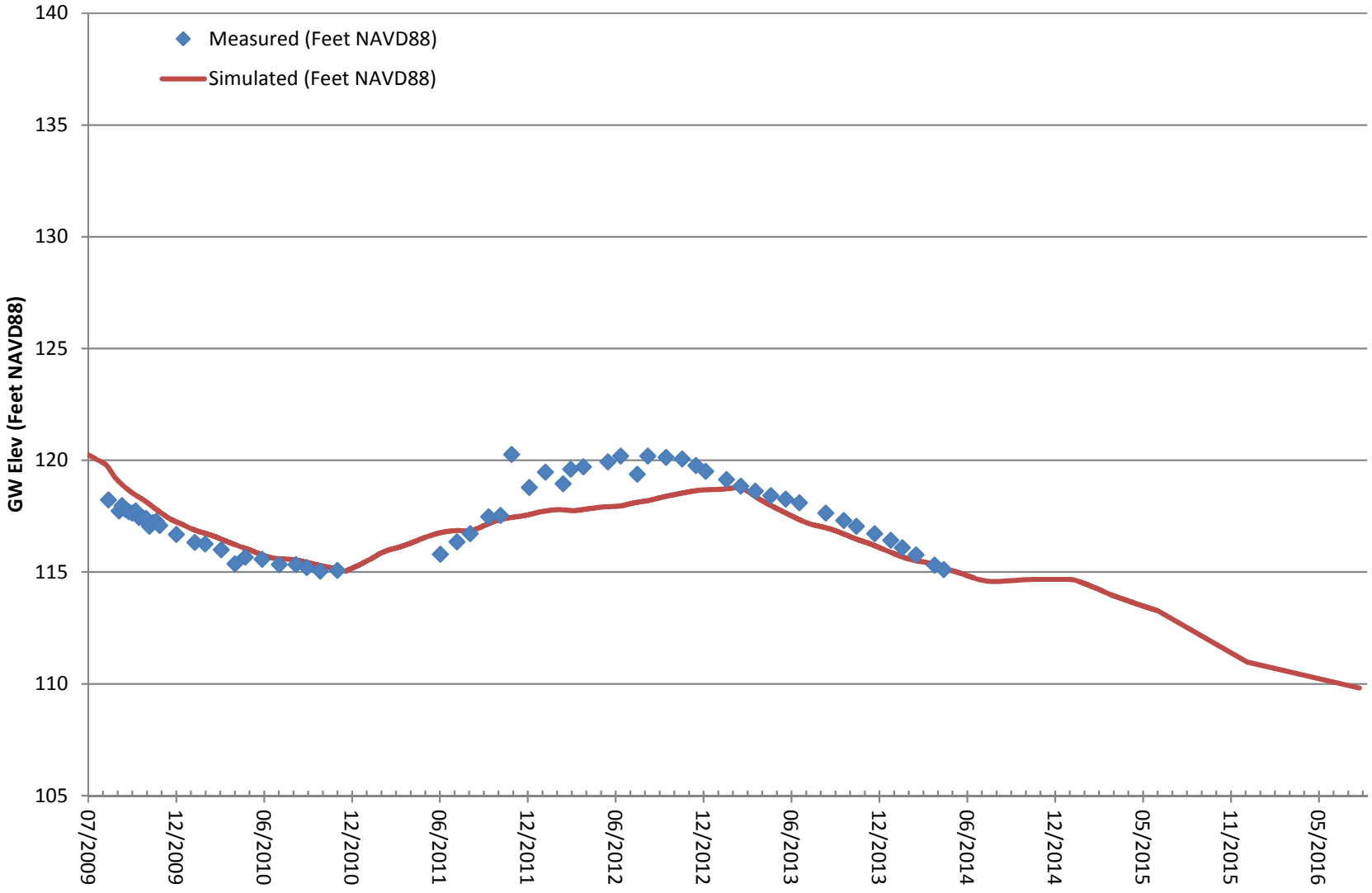


Figure 5
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-7

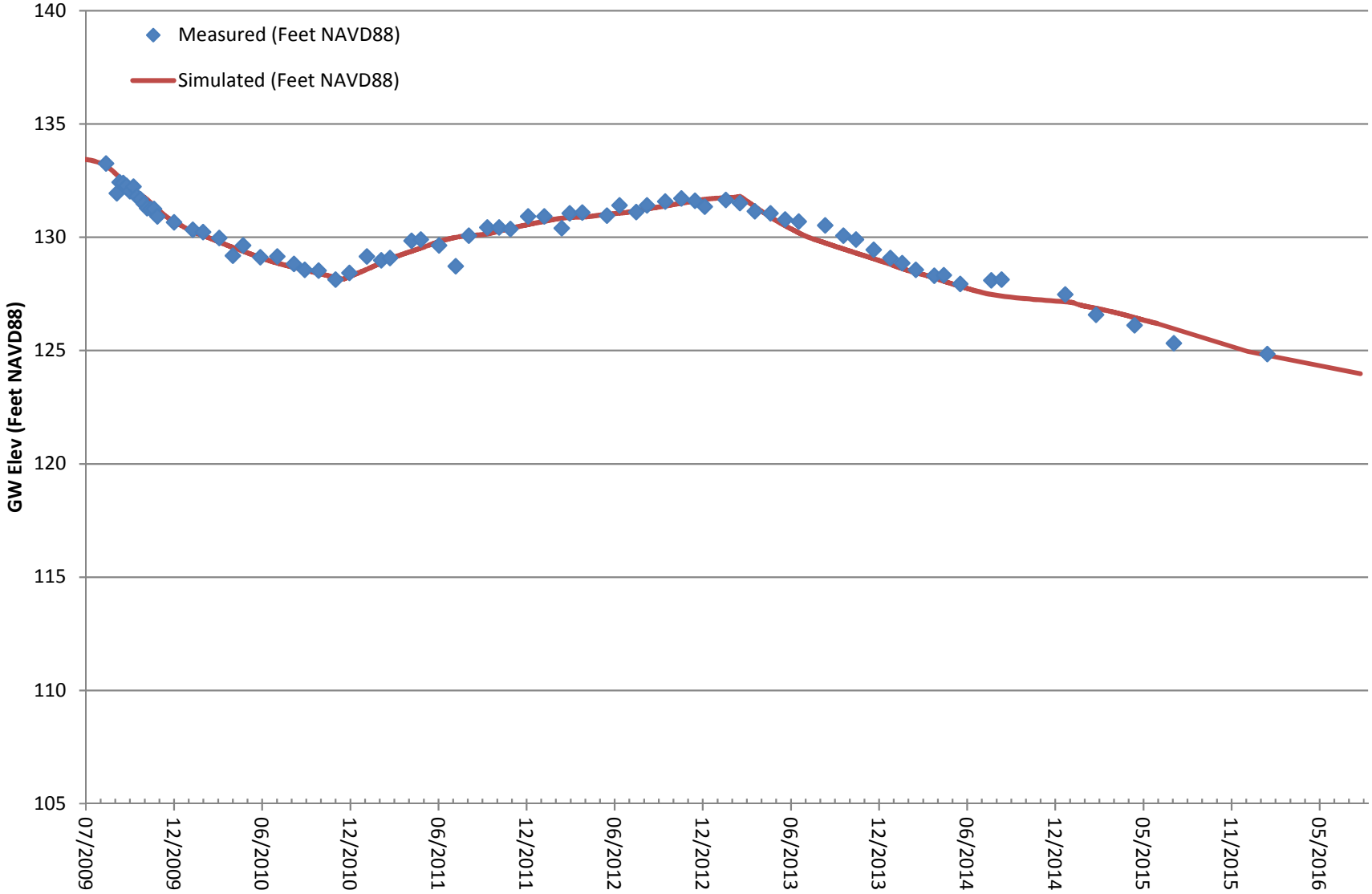


Figure 6
Omega Chemical Facility
Capture Zone Model, Observed vs. Simulated Heads
OW-8a

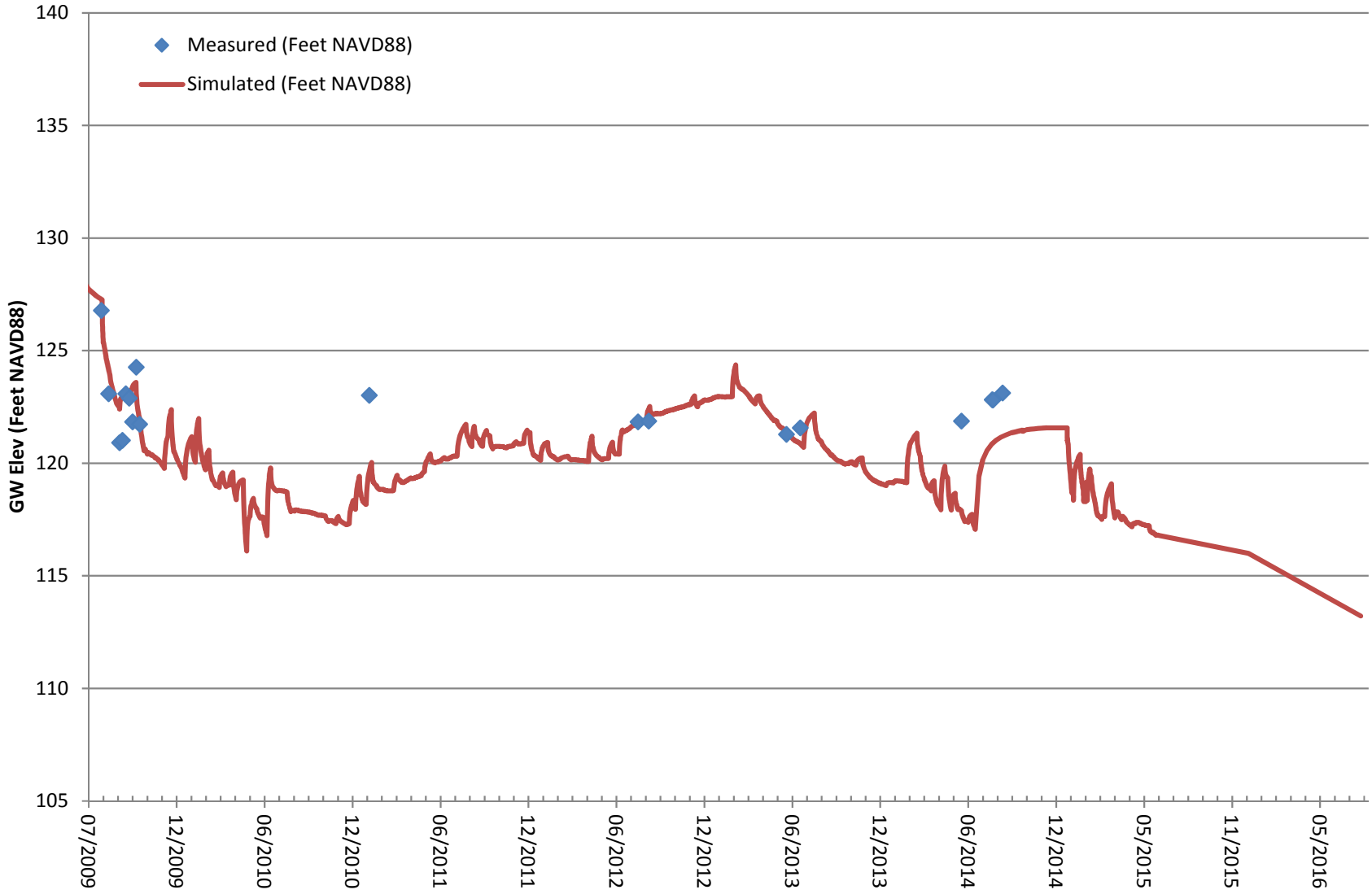


Figure 7
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-9

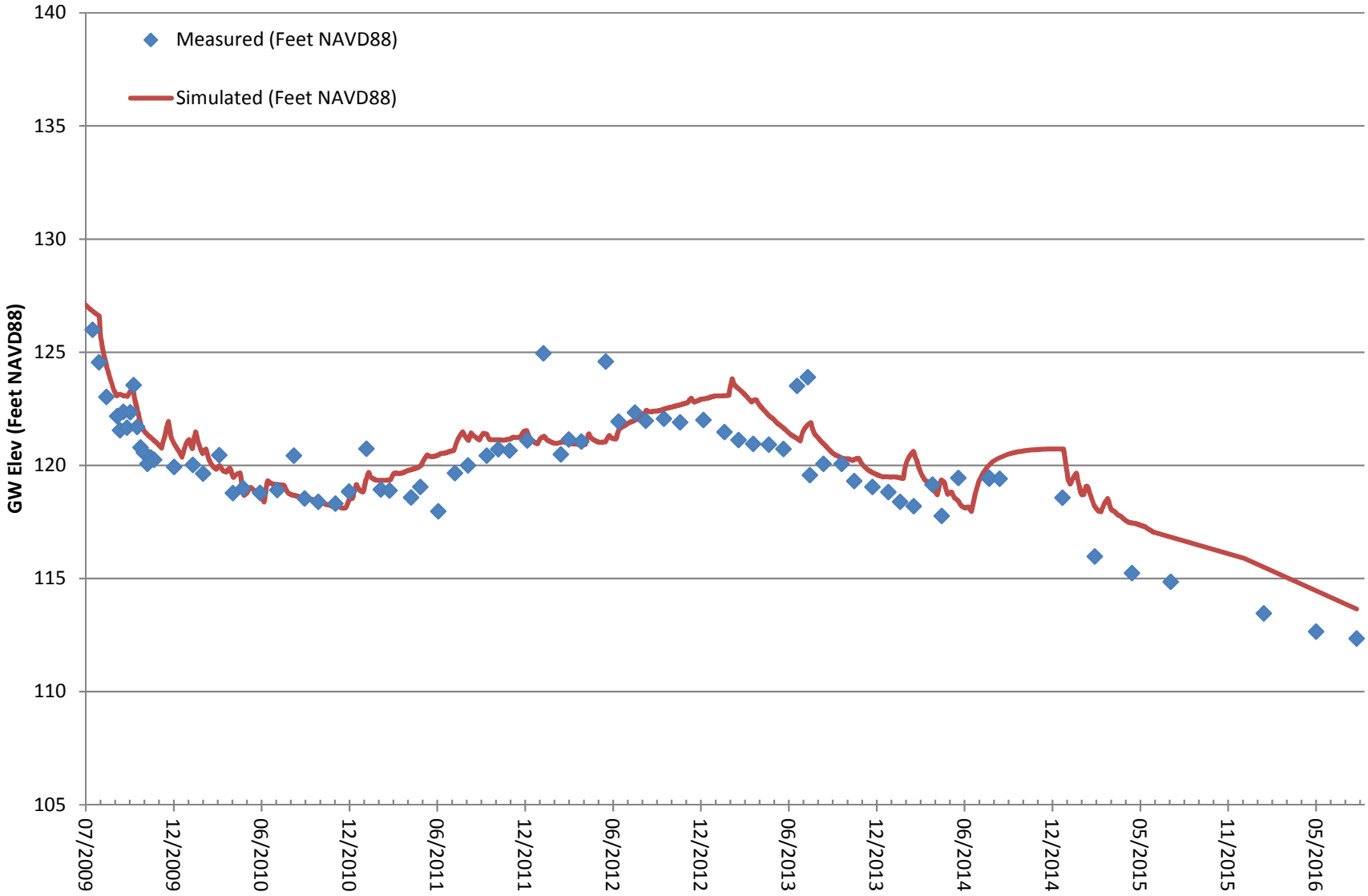


Figure 8
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-10

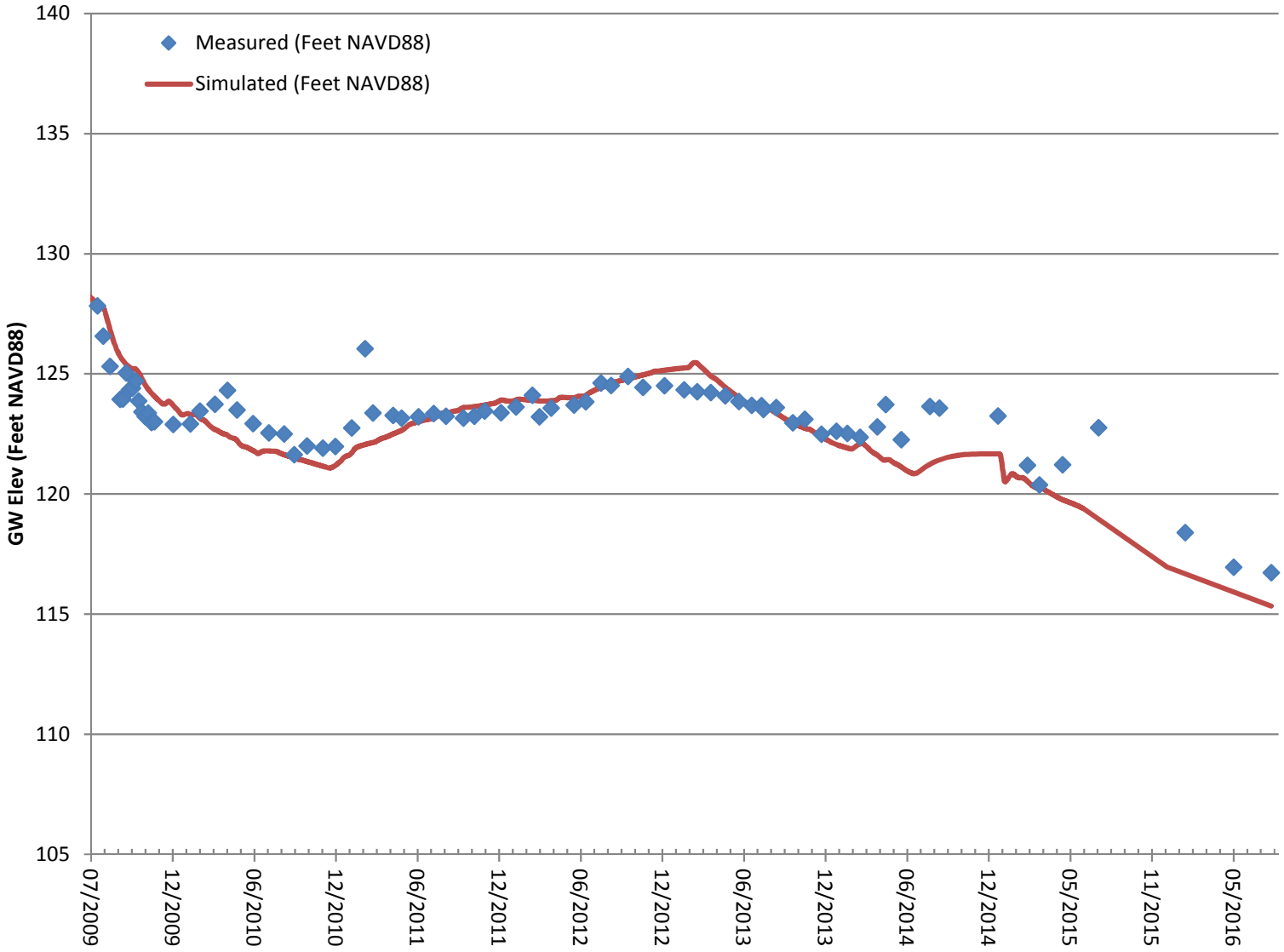
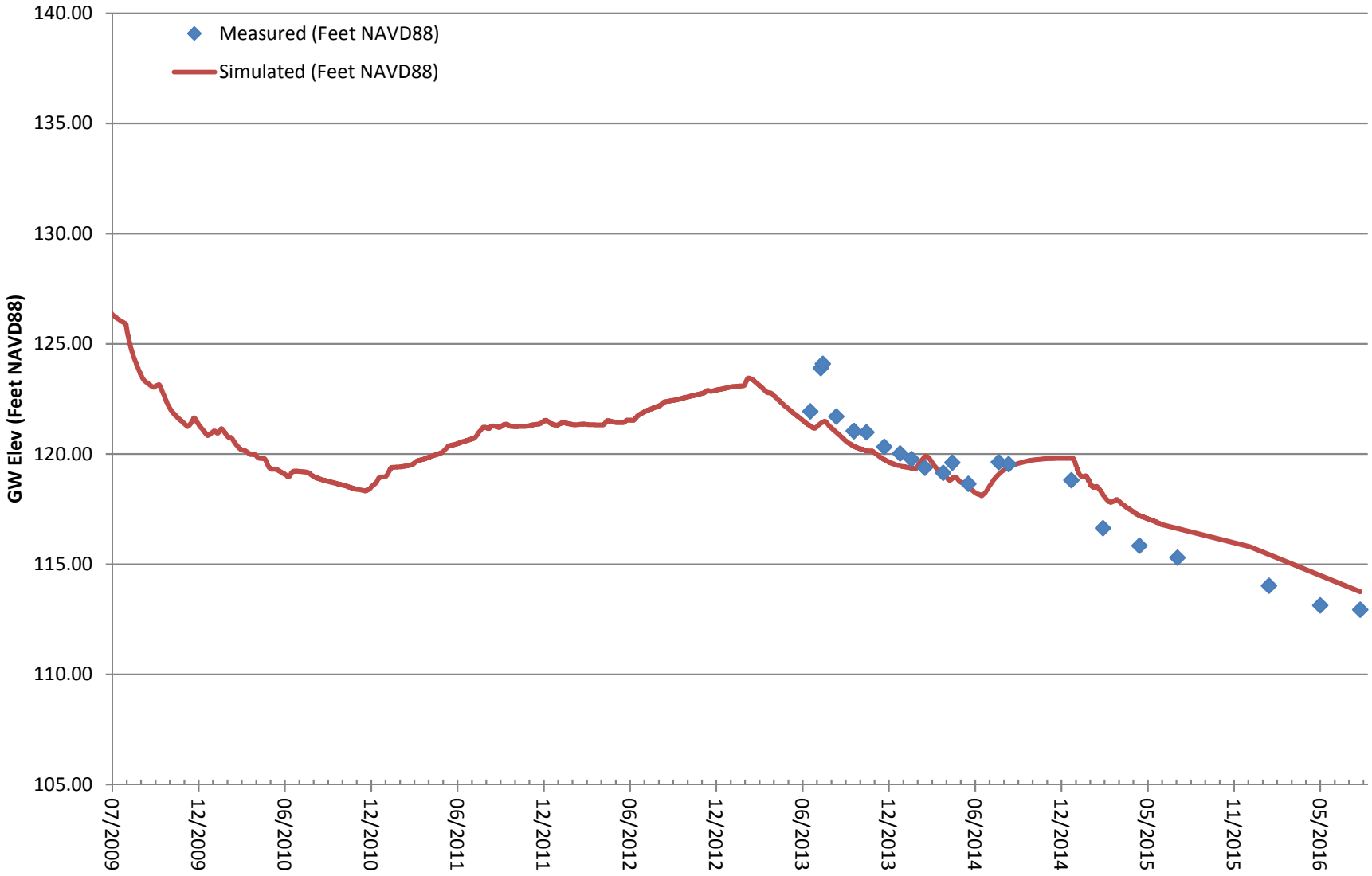


Figure 9
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-11



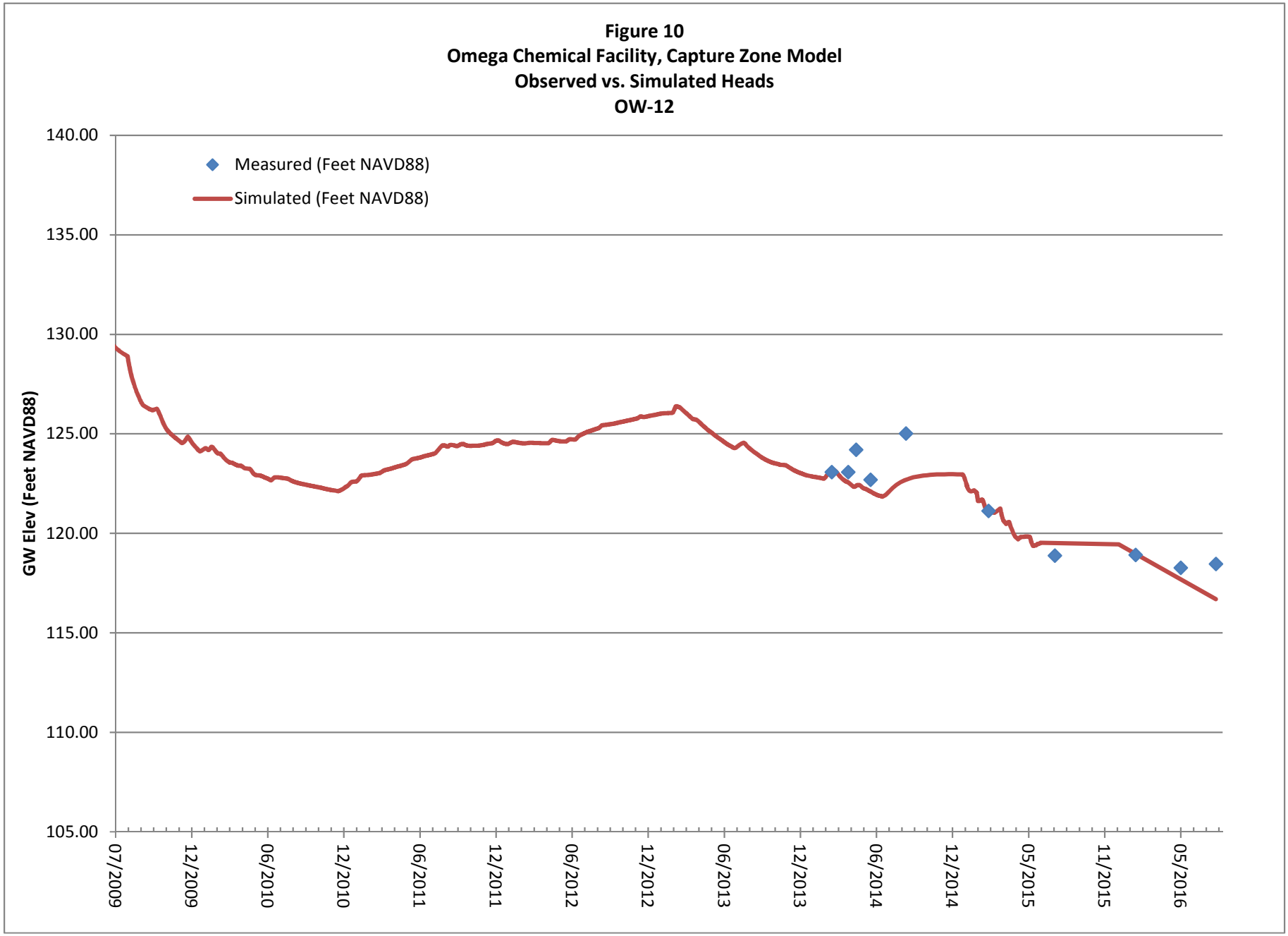


Figure 10
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
OW-12
Measured (Feet NAVD88)
Simulated (Feet NAVD88)
GW Elev (Feet NAVD88)
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
07/2009
12/2009
06/2010
12/2010
06/2011
12/2011
06/2012
12/2012
06/2013
12/2013
06/2014
12/2014
05/2015
11/2015
05/2016

Figure 11
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-1

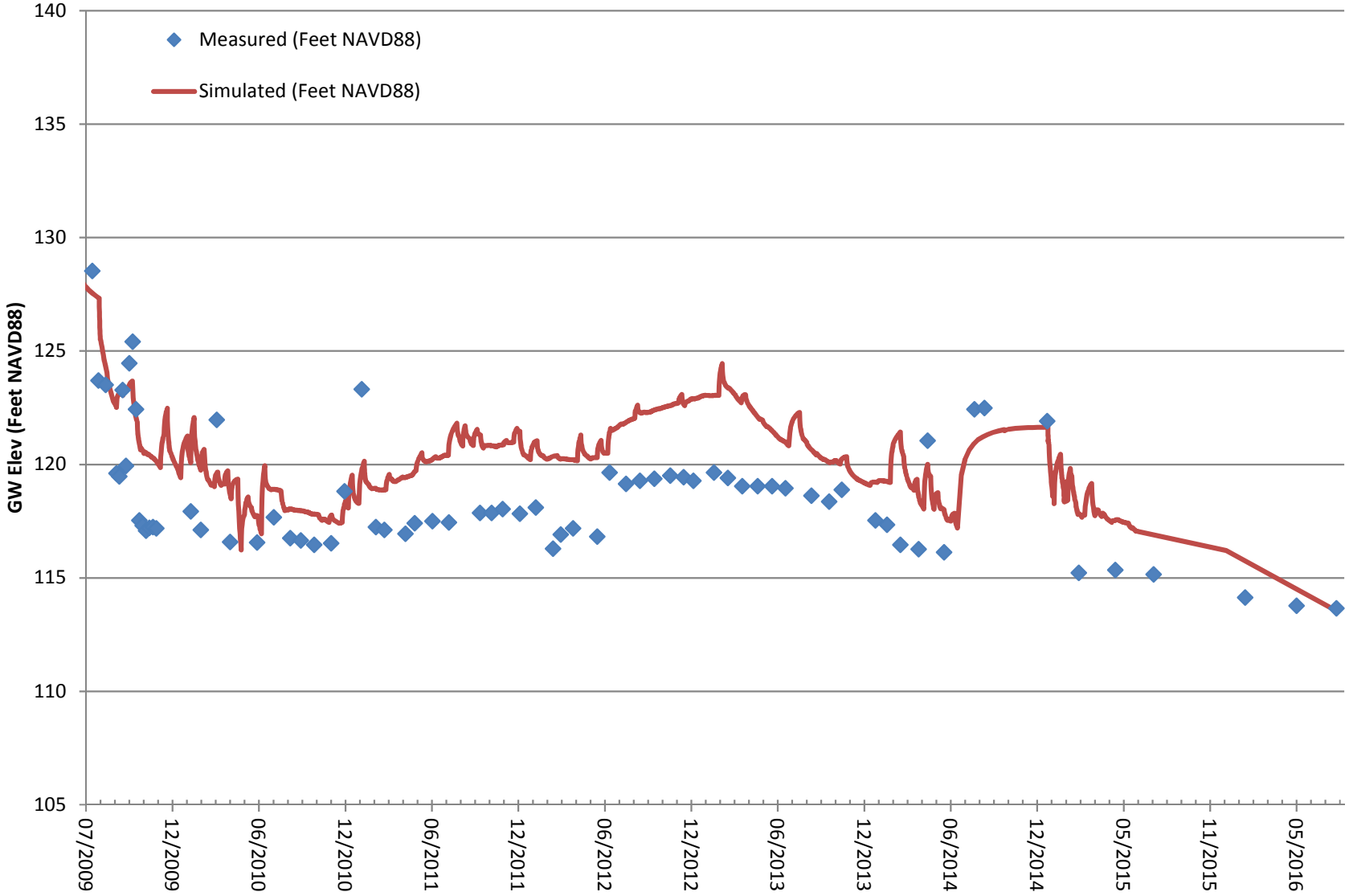


Figure 12
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-2

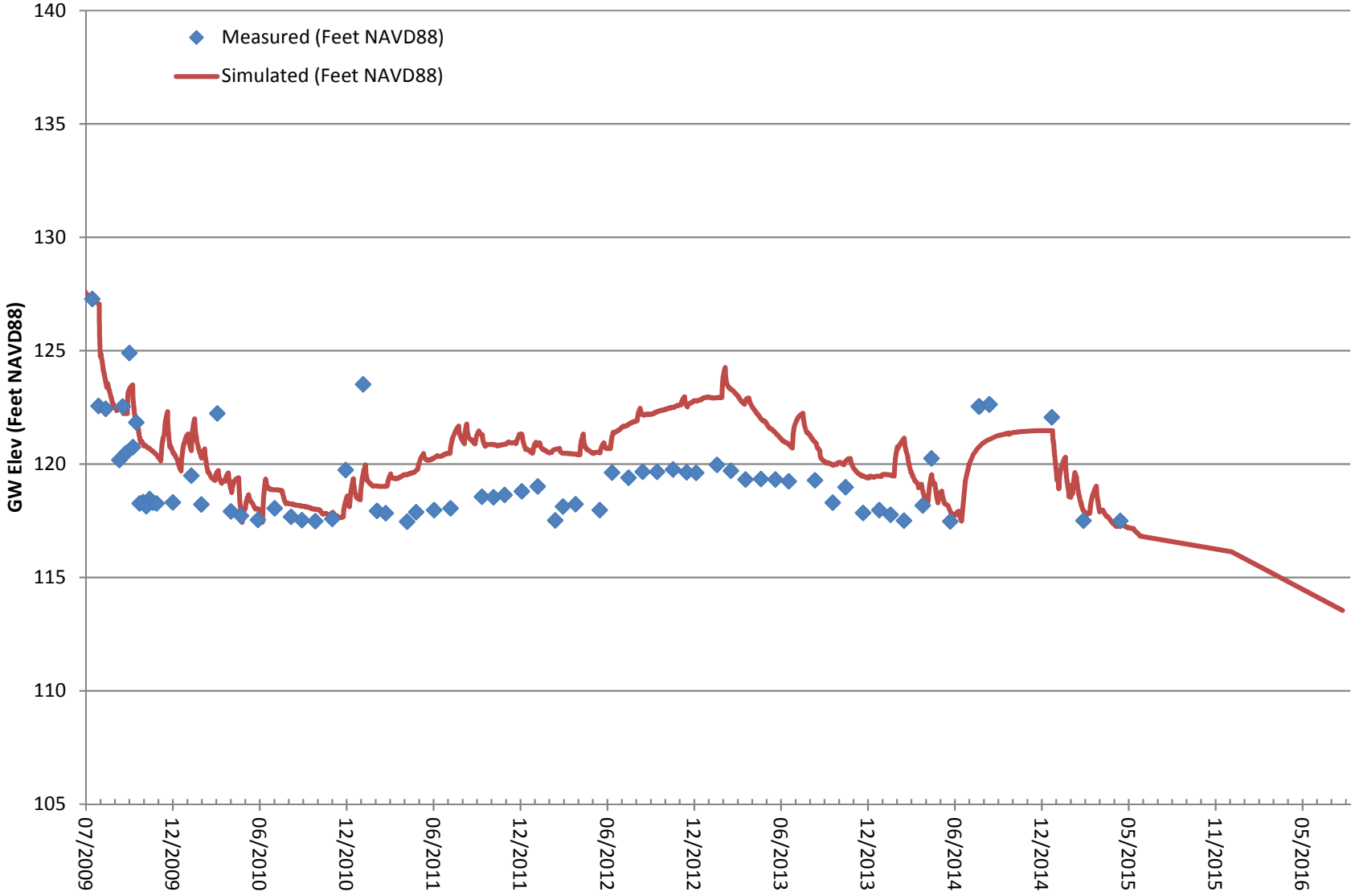


Figure 13
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-3

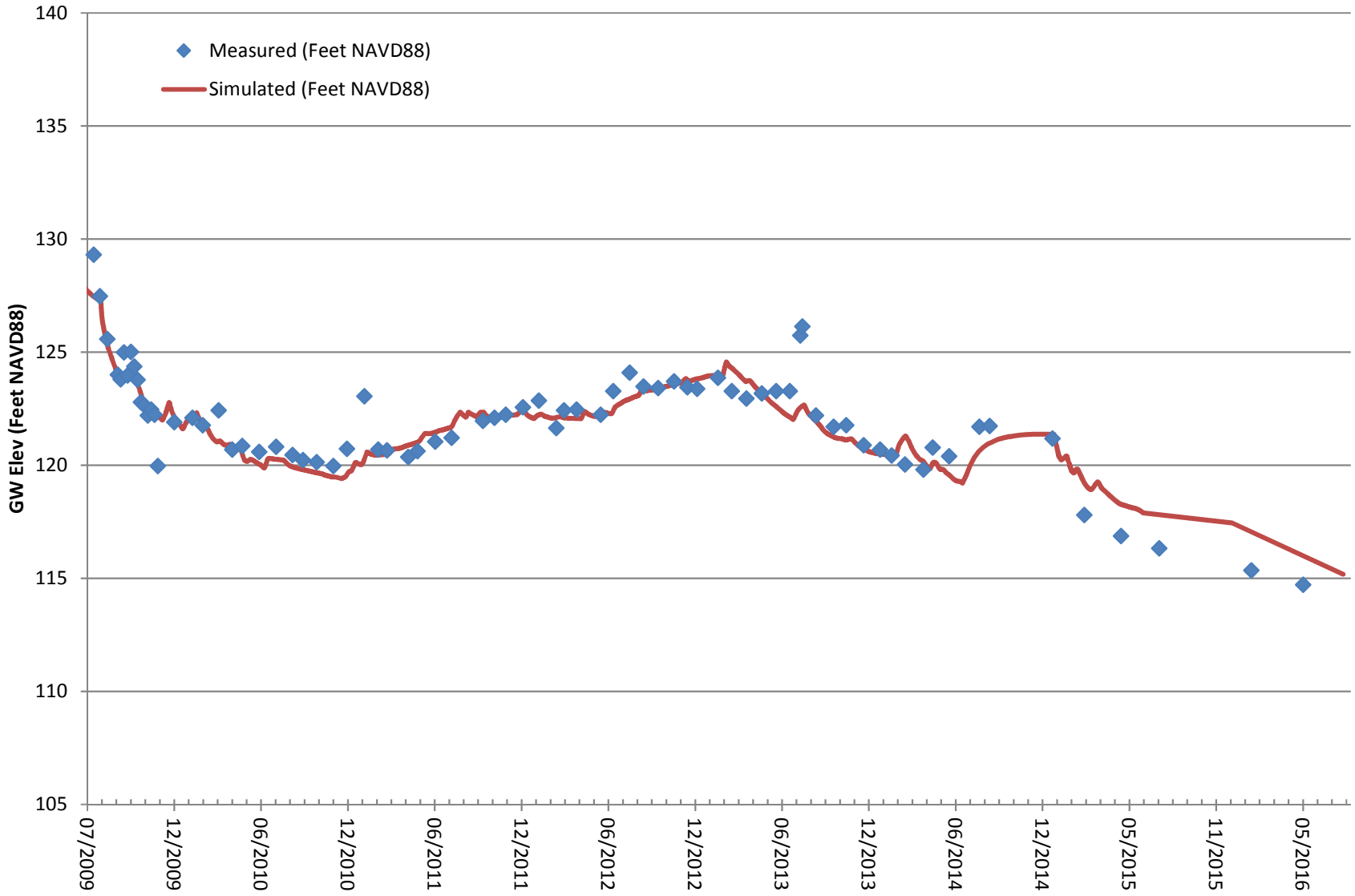


Figure 14
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-4

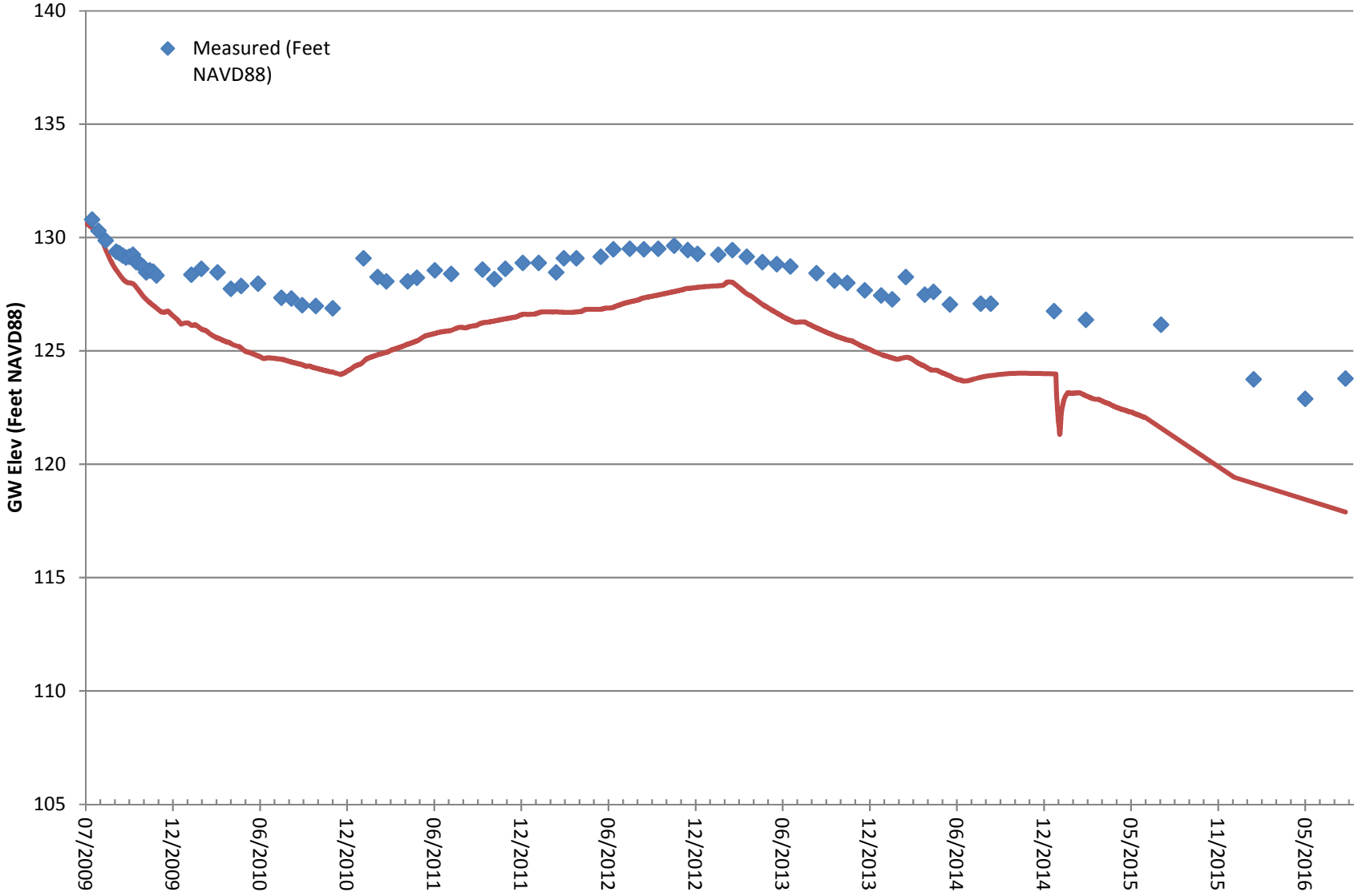


Figure 15
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-5

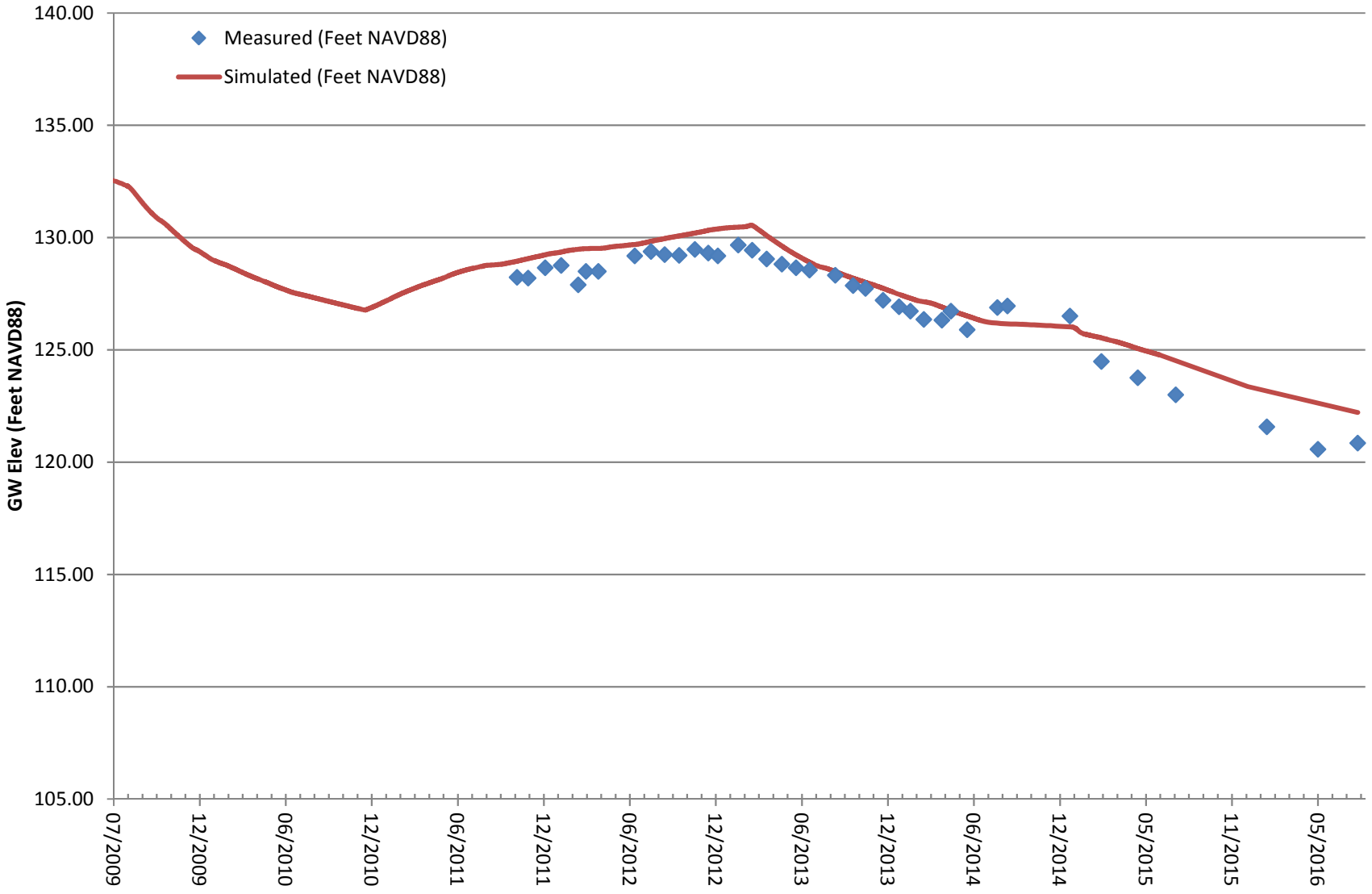


Figure 16
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-6

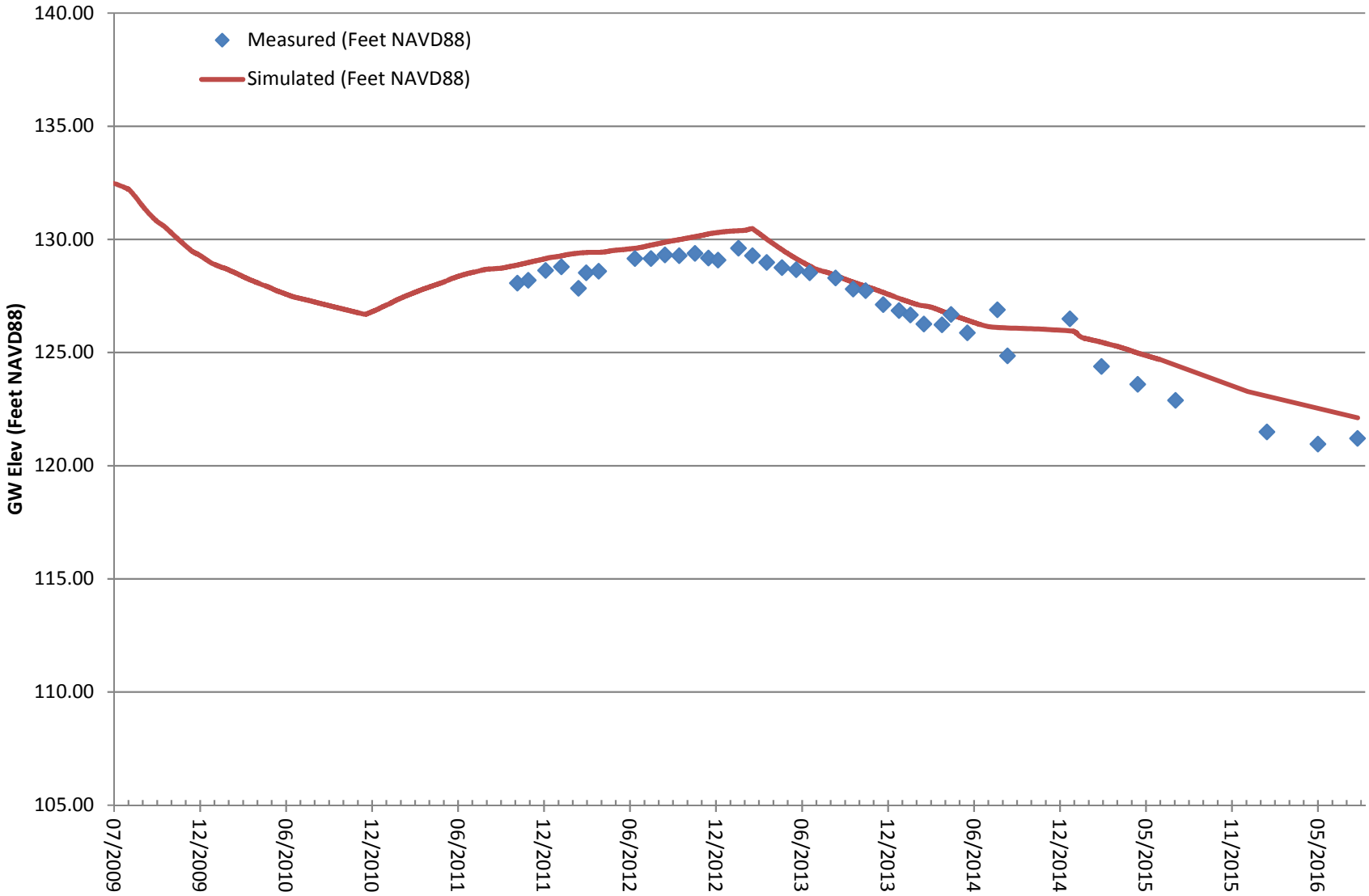
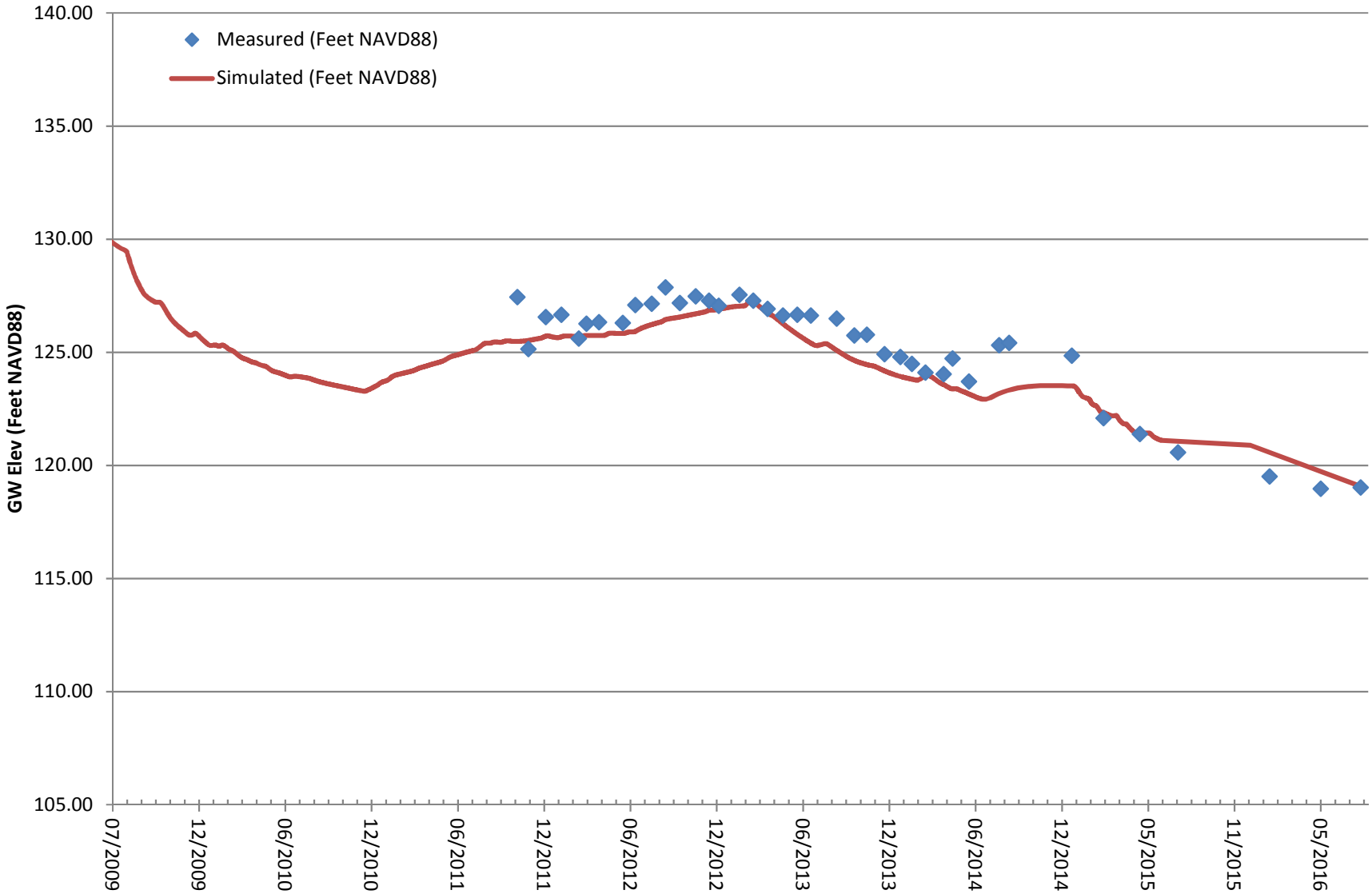


Figure 17
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-7



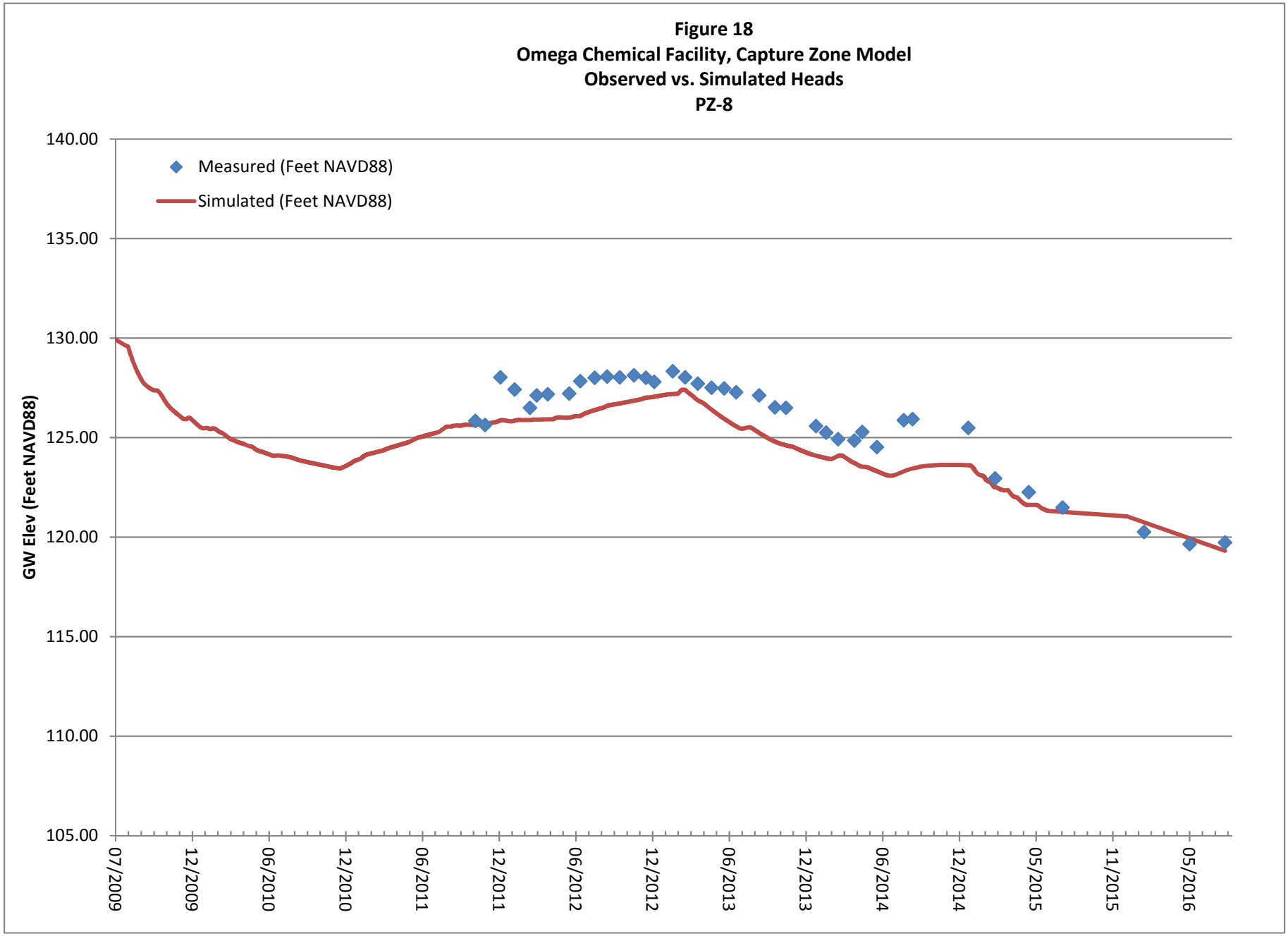


Figure 18
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-8
Measured (Feet NAVD88)
Simulated (Feet NAVD88)
GW Elev (Feet NAVD88)
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
07/2009
12/2009
06/2010
12/2010
06/2011
12/2011
06/2012
12/2012
06/2013
12/2013
06/2014
12/2014
05/2015
11/2015
05/2016

Figure 19
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
PZ-9

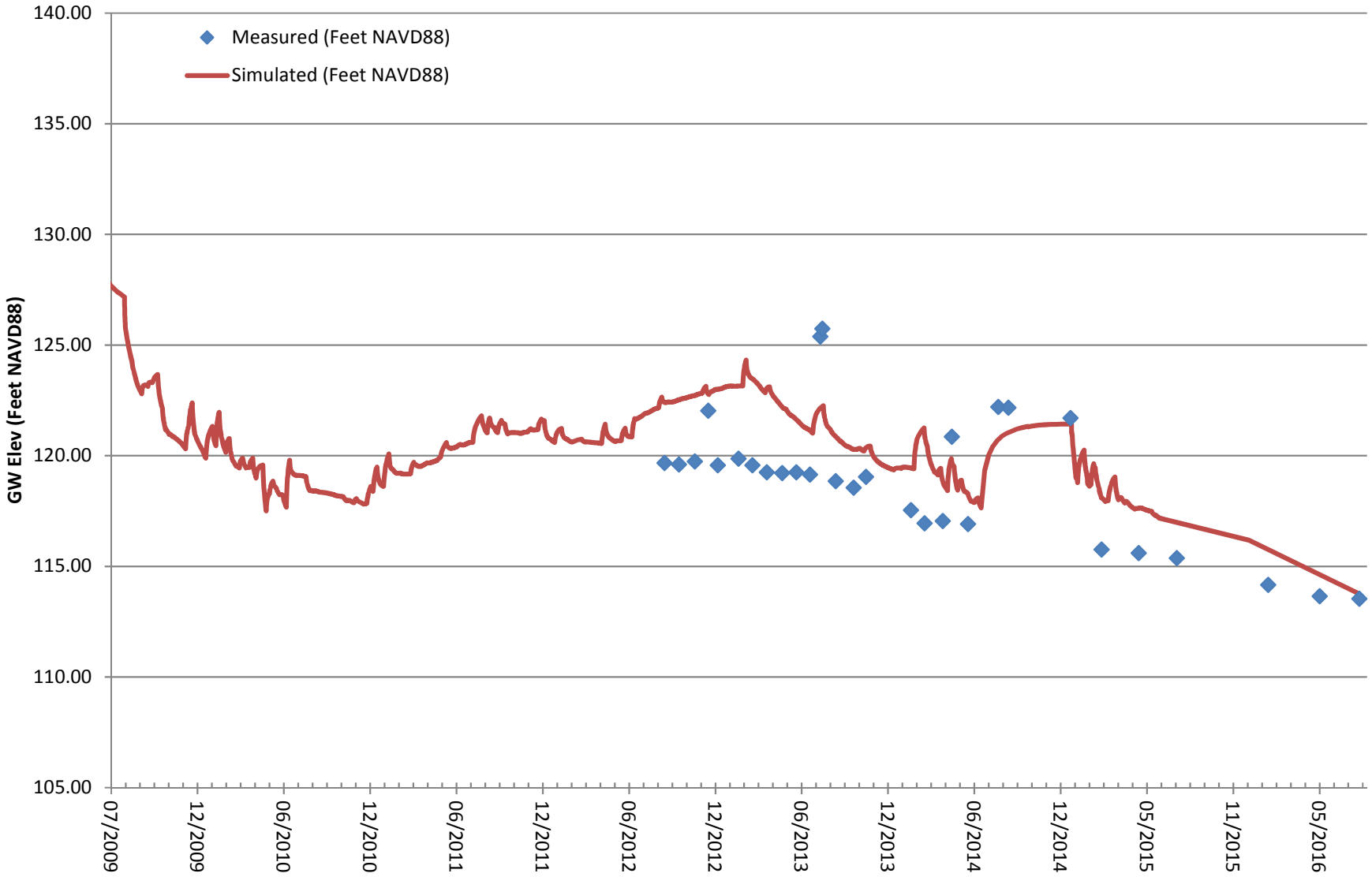
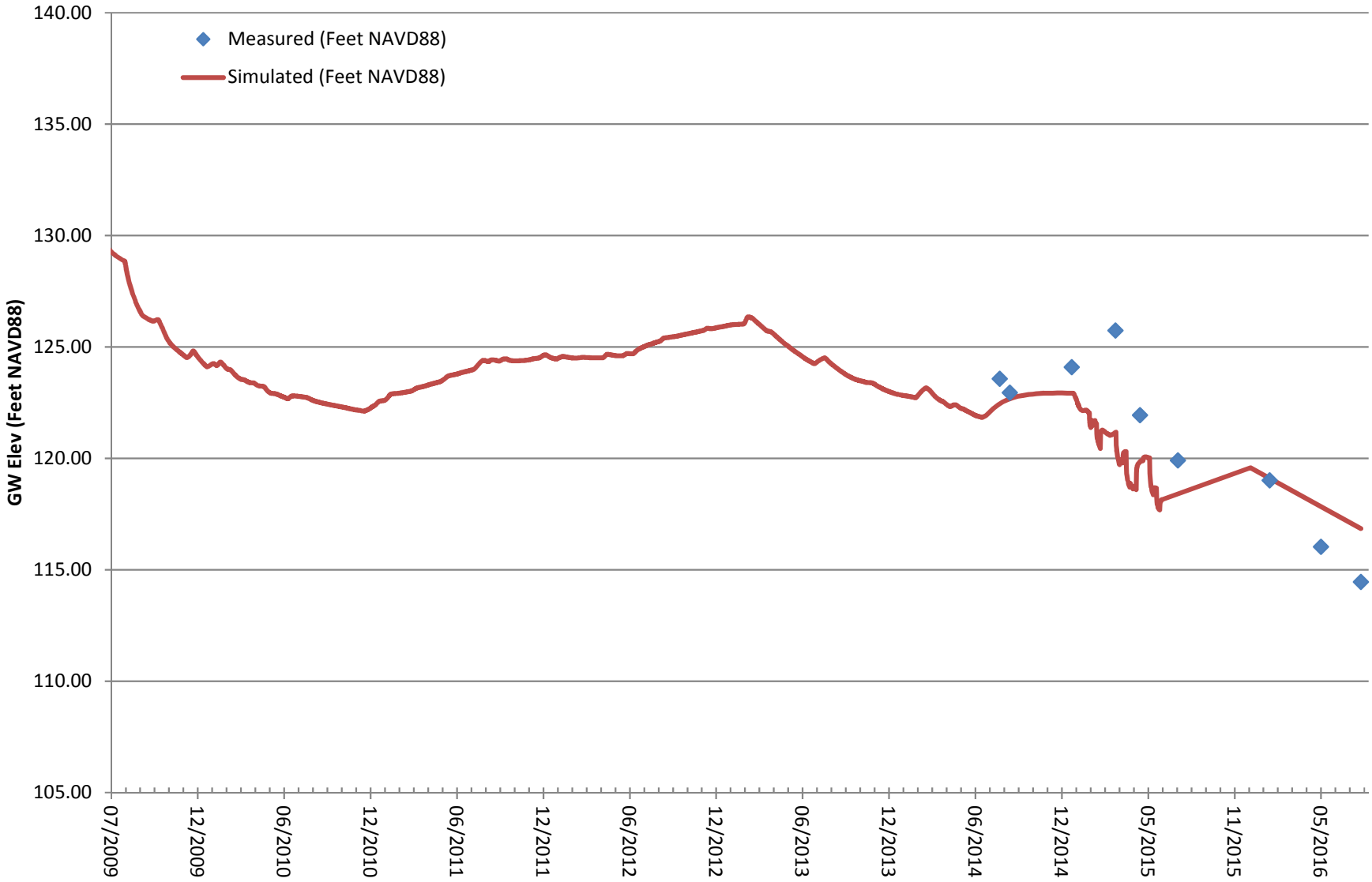


Figure 20
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-3



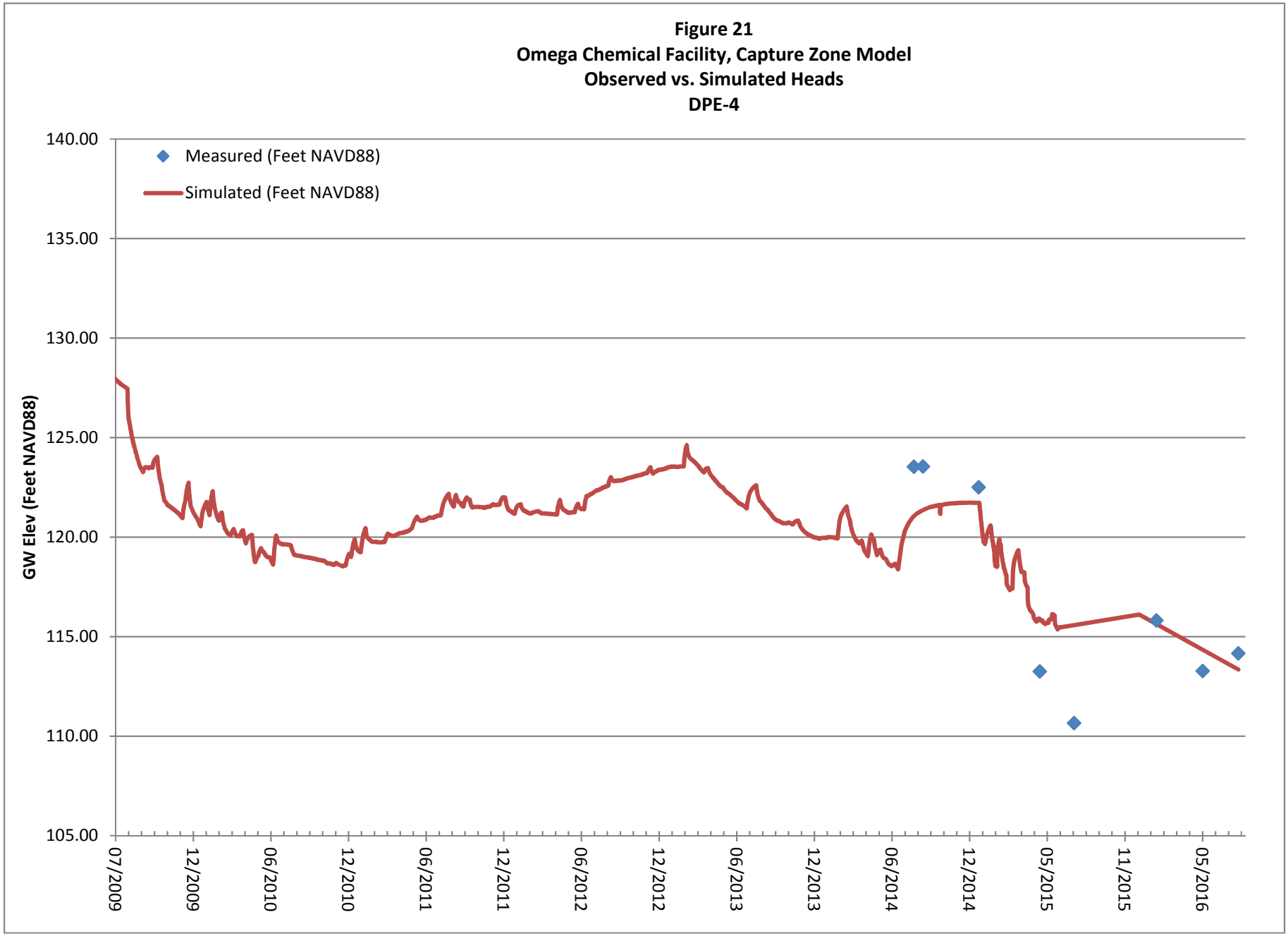


Figure 21
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-4
Measured (Feet NAVD88)
Simulated (Feet NAVD88)
GW Elev (Feet NAVD88)
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
07/2009
12/2009
06/2010
12/2010
06/2011
12/2011
06/2012
12/2012
06/2013
12/2013
06/2014
12/2014
05/2015
11/2015
05/2016

Figure 22
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-5

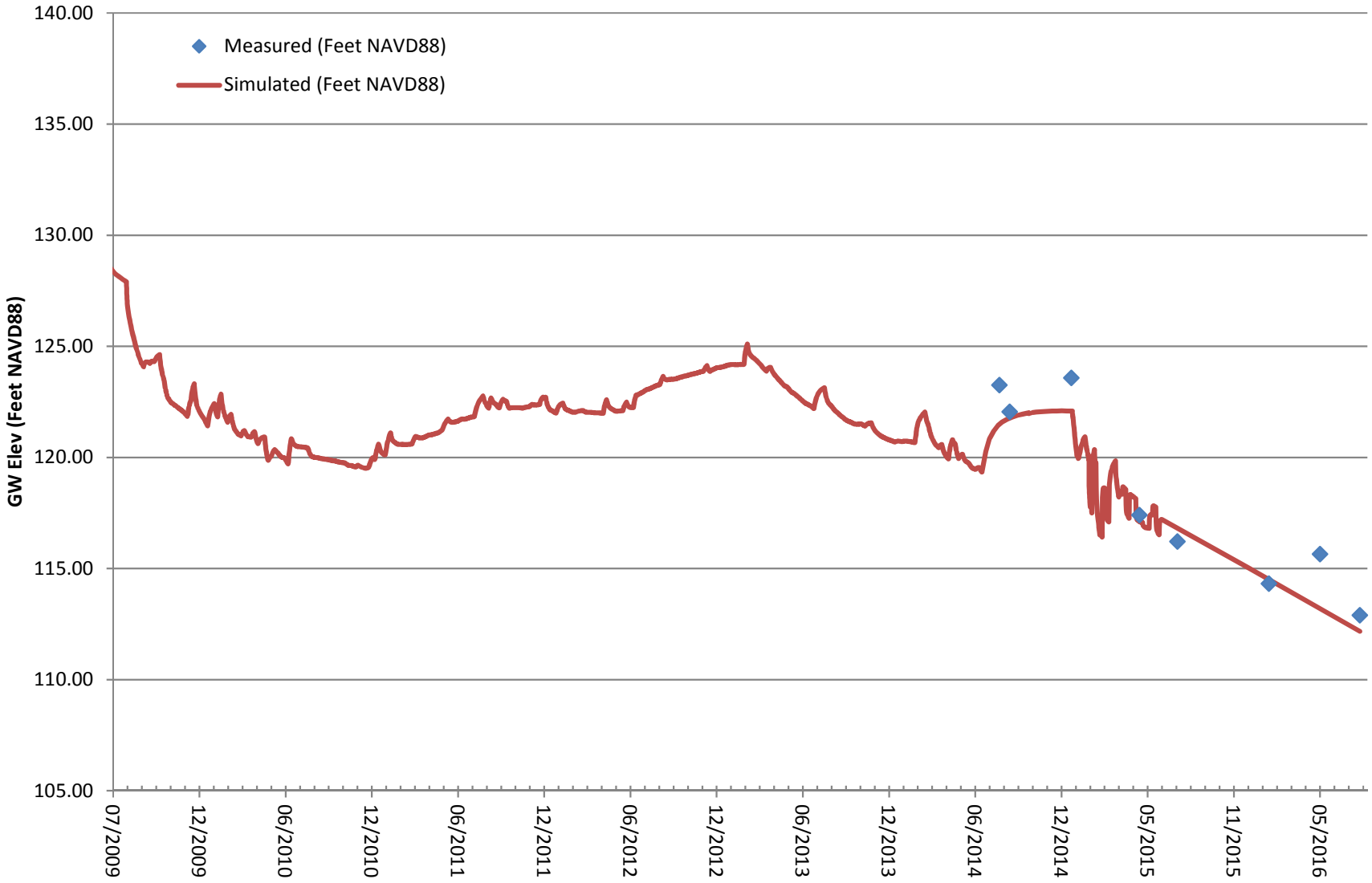


Figure 23
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-8

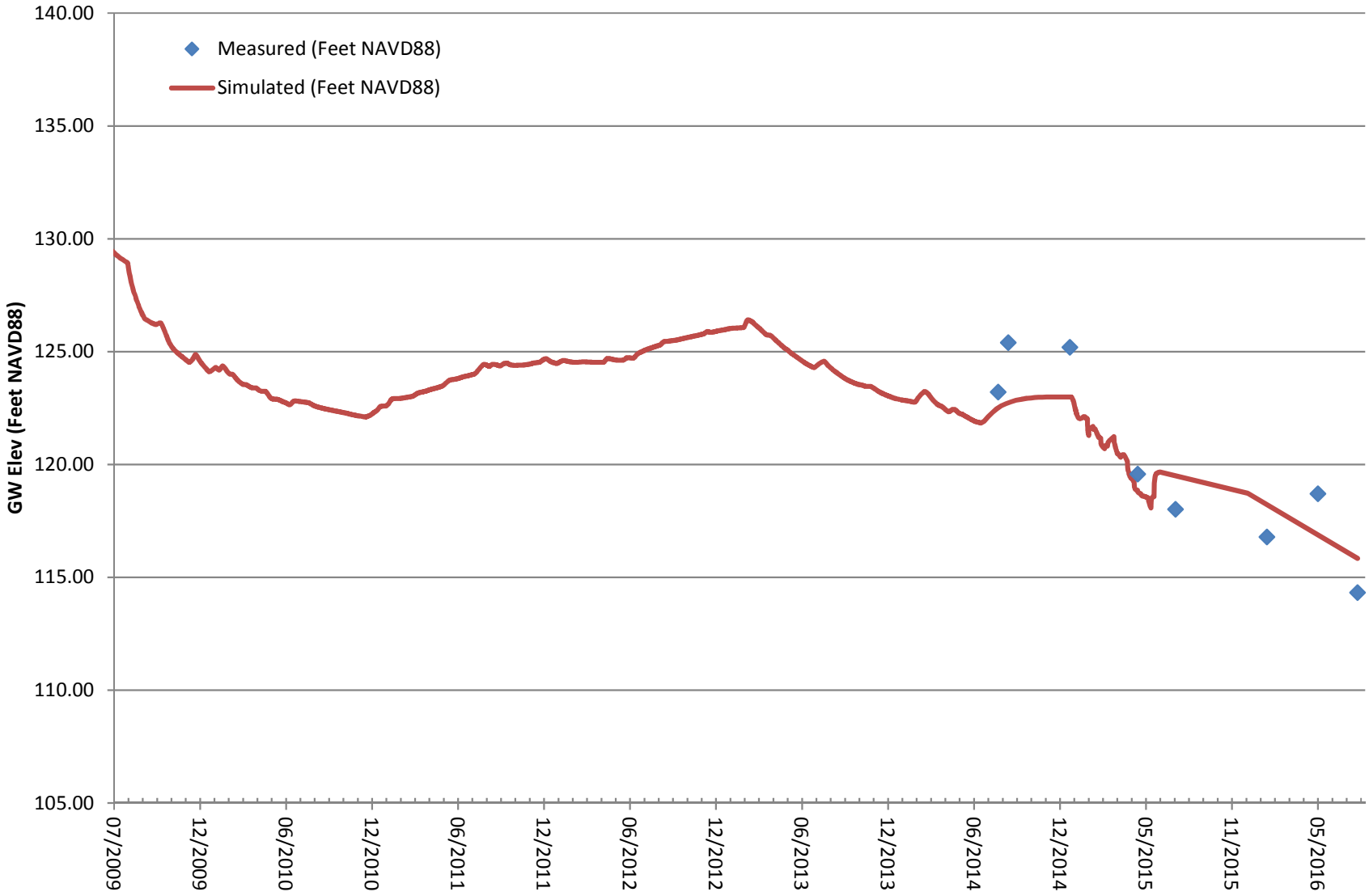


Figure 24
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
DPE-9

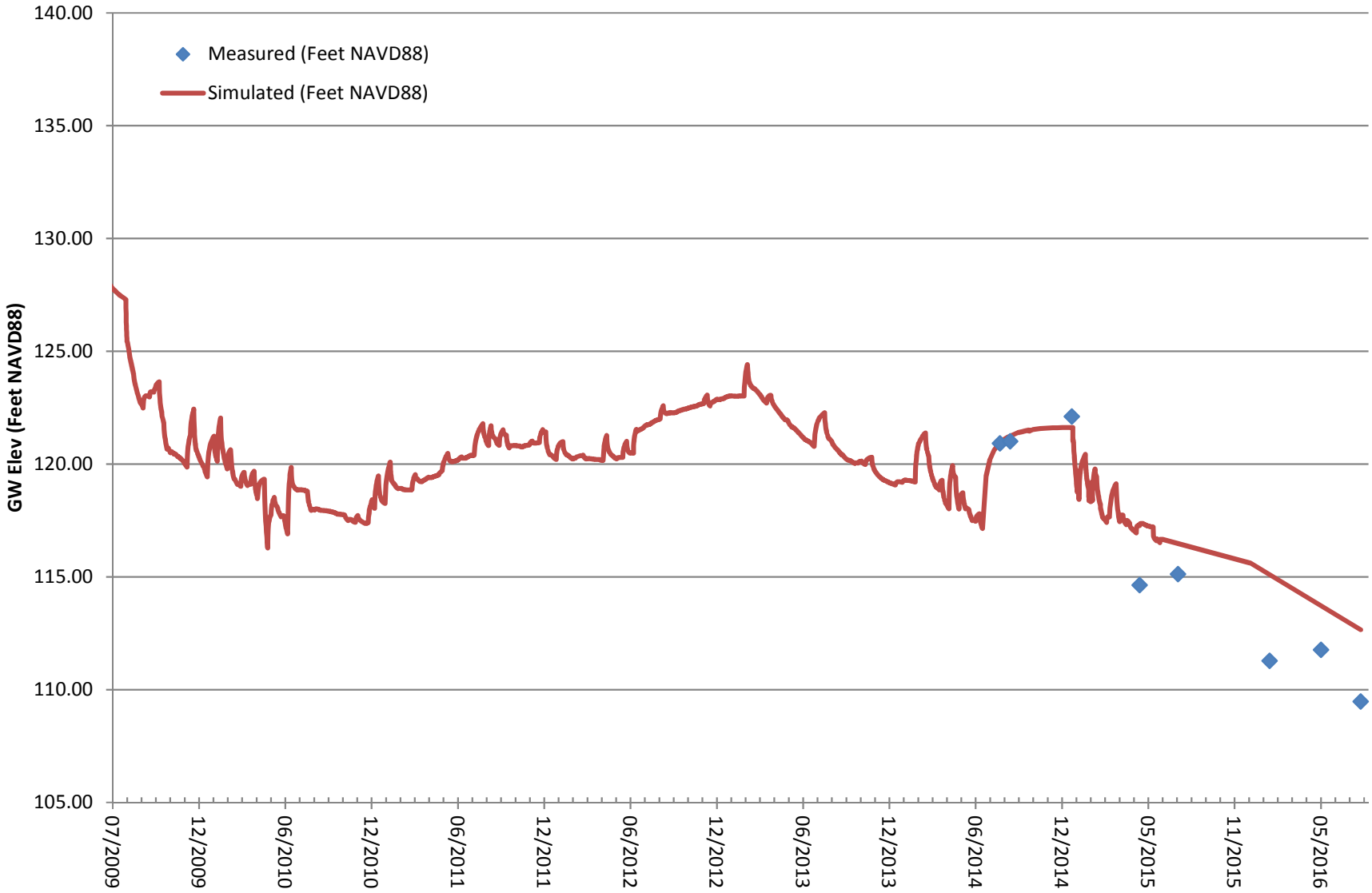


Figure 25
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-6D

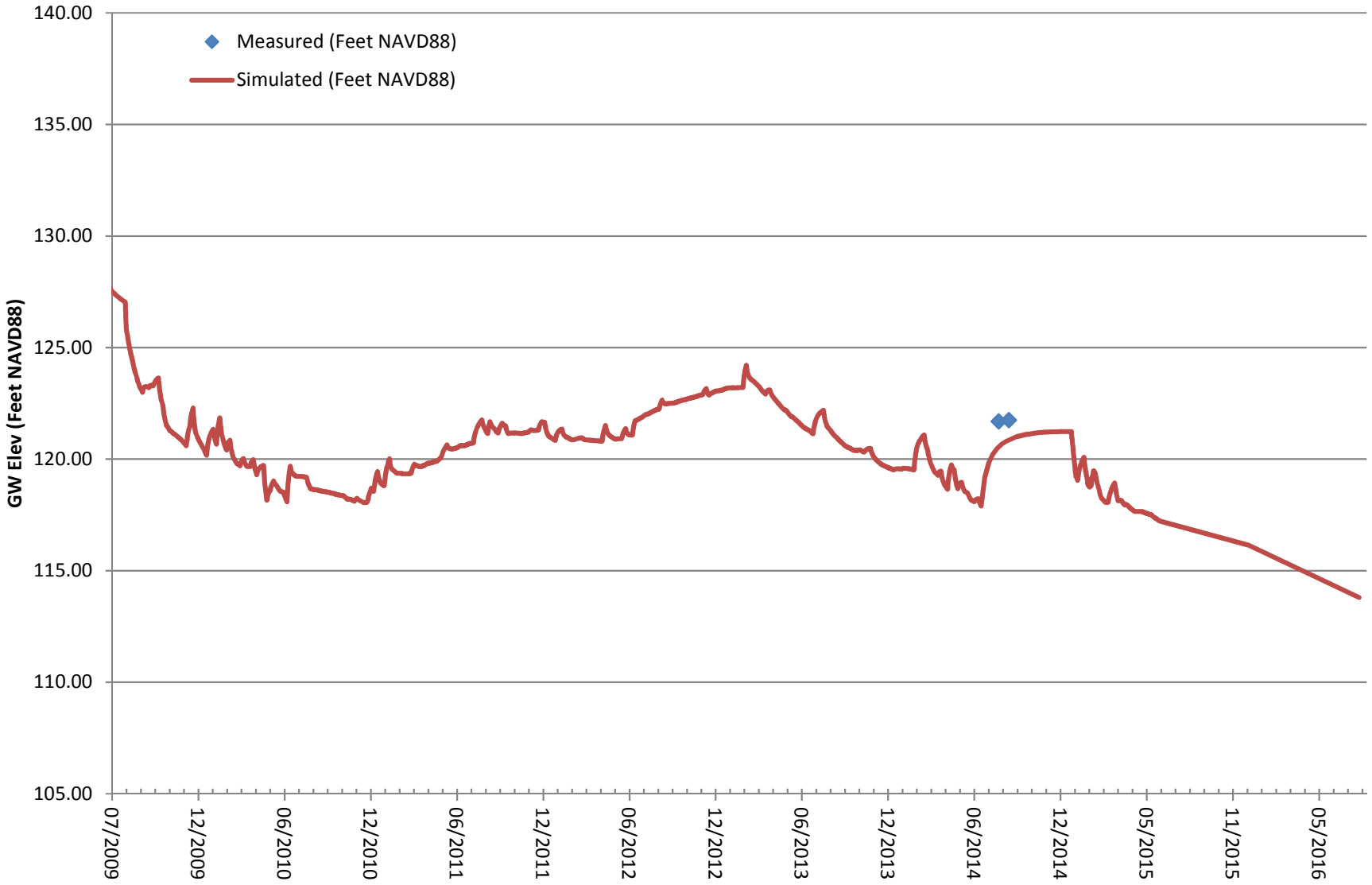


Figure 26
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-7D

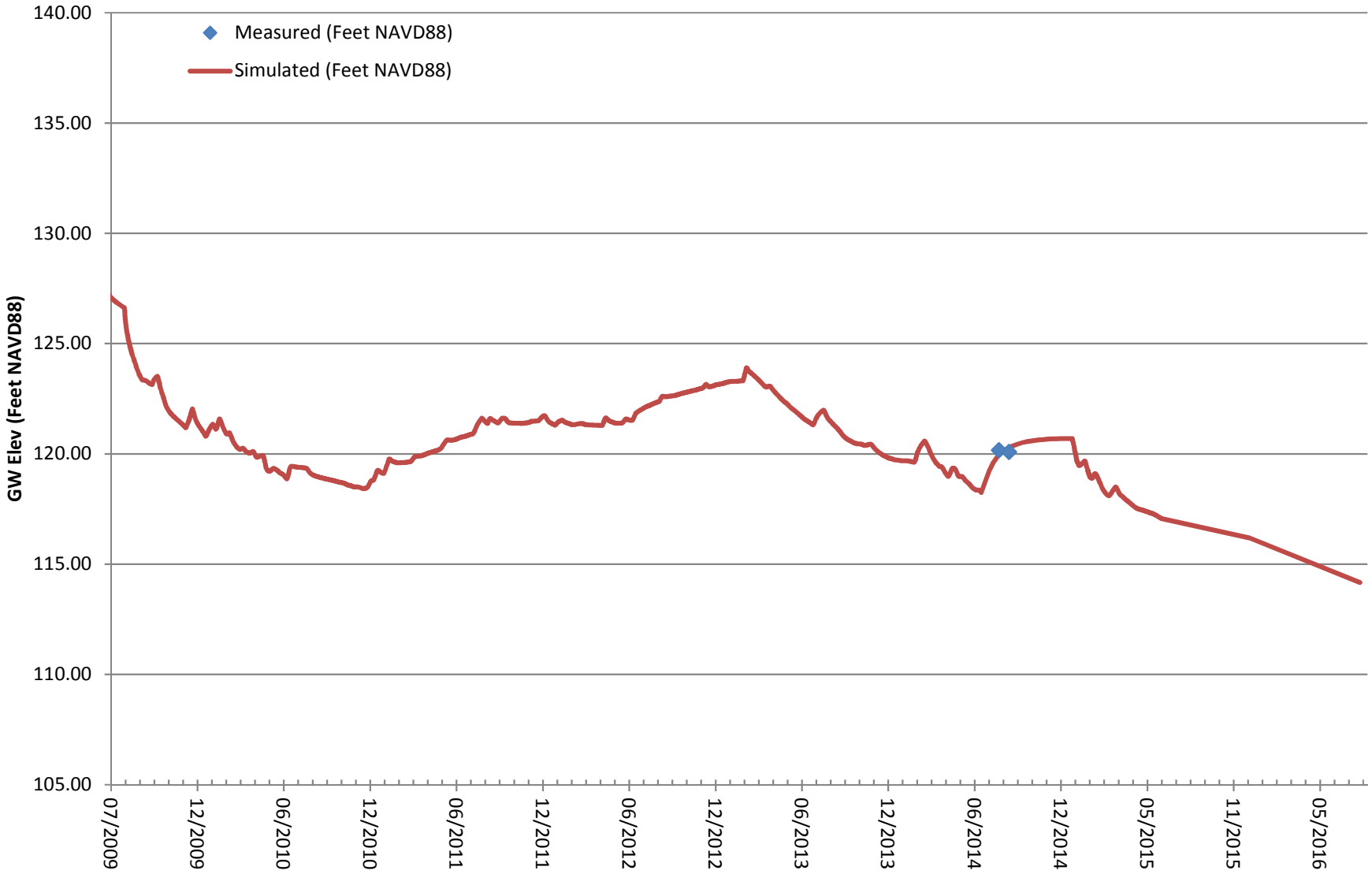


Figure 27
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-10D

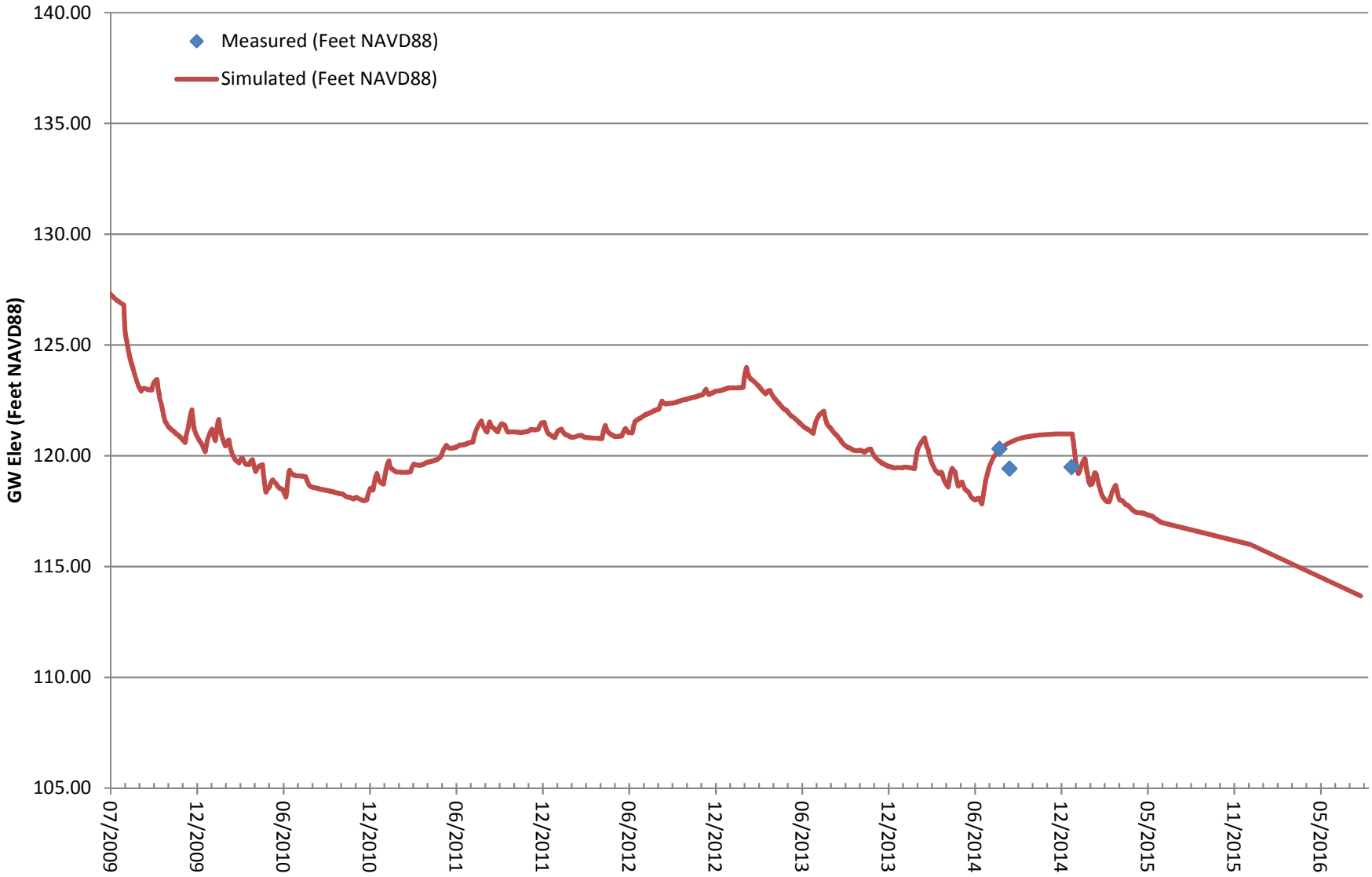


Figure 28
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-11D

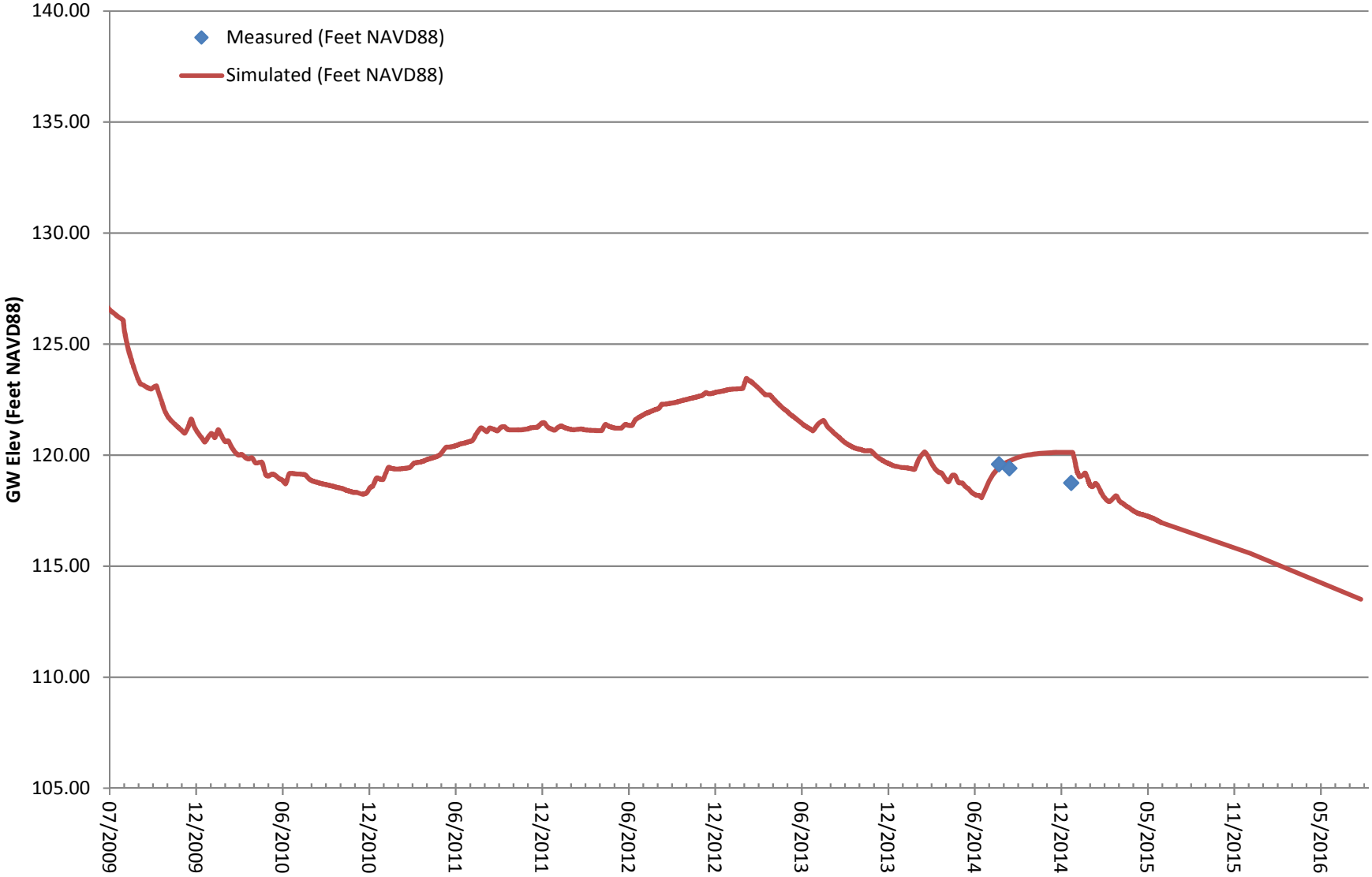
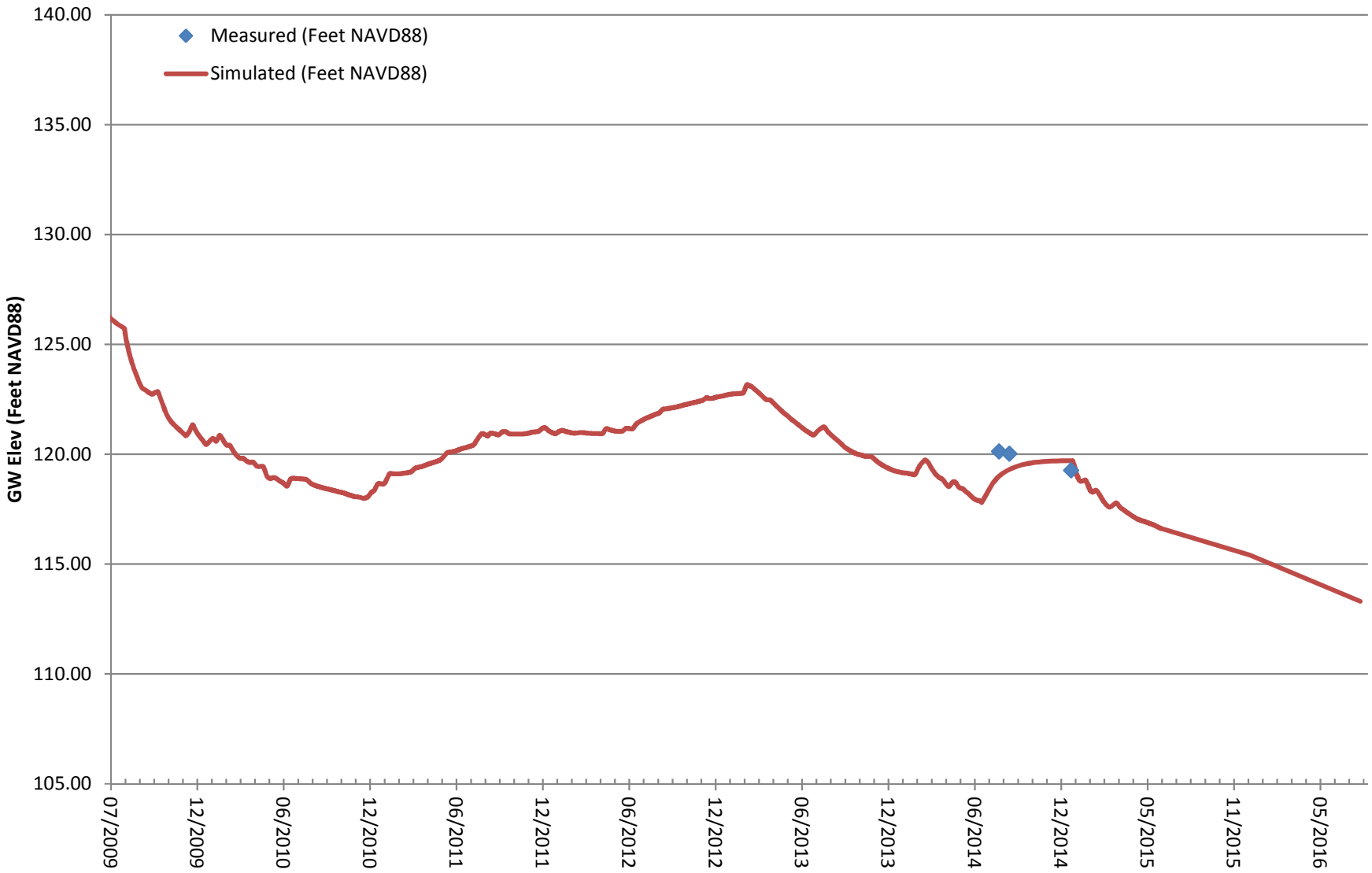


Figure 29
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-12D



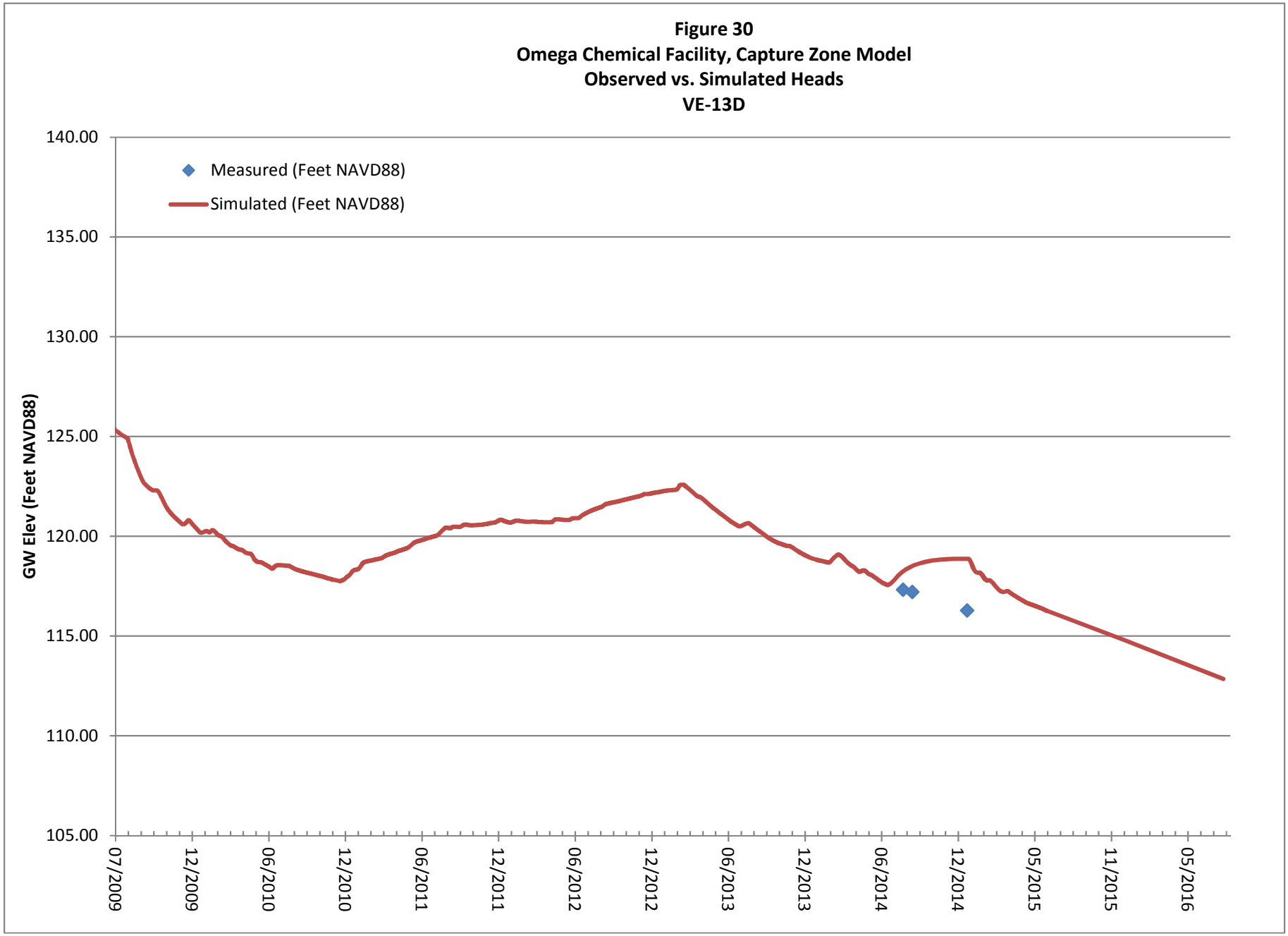
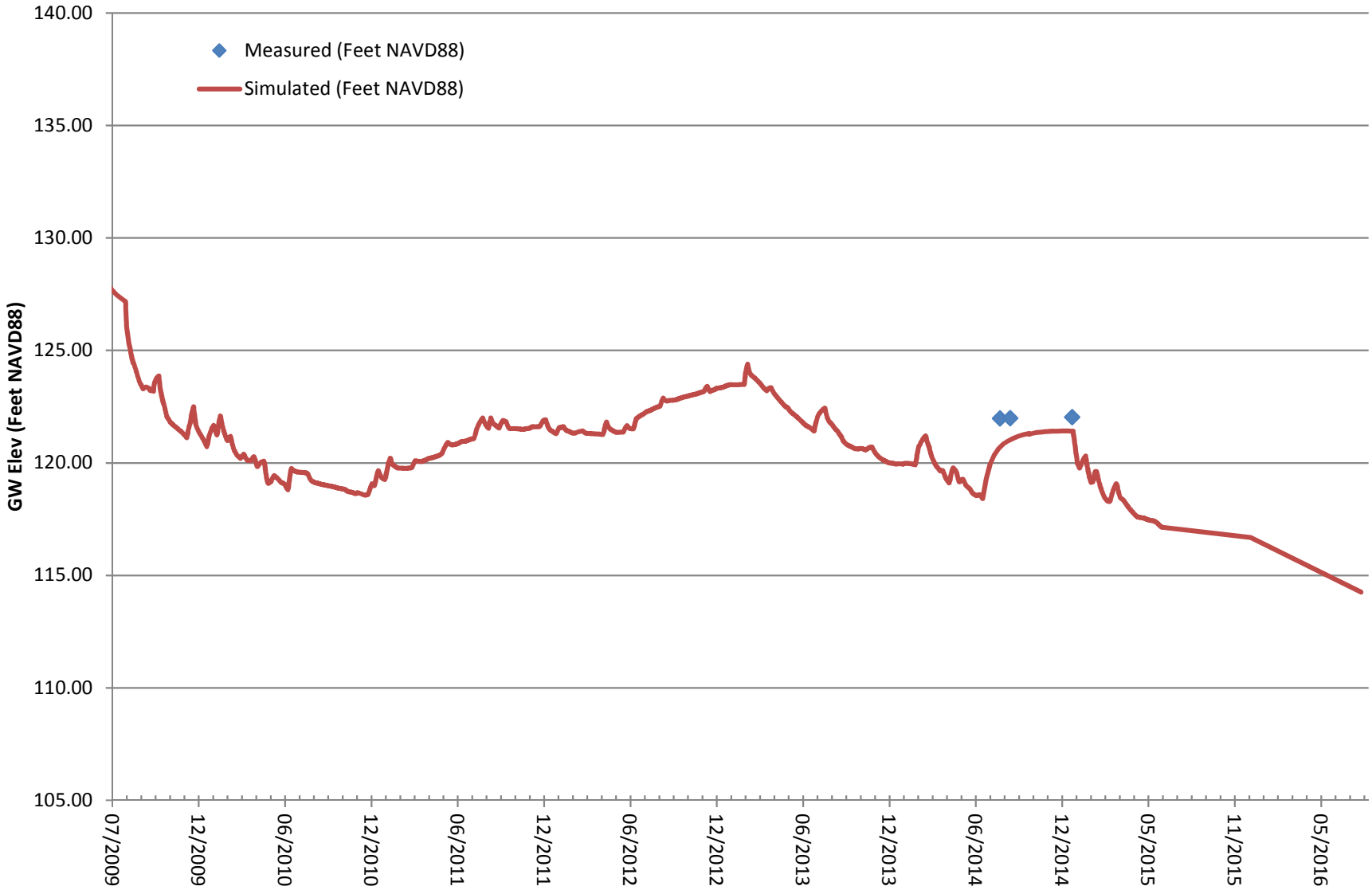


Figure 30
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-13D
Measured (Feet NAVD88)
Simulated (Feet NAVD88)
GW Elev (Feet NAVD88)
140.00
135.00
130.00
125.00
120.00
115.00
110.00
105.00
07/2009
12/2009
06/2010
12/2010
06/2011
12/2011
06/2012
12/2012
06/2013
12/2013
06/2014
12/2014
05/2015
11/2015
05/2016

Figure 31
Omega Chemical Facility, Capture Zone Model
Observed vs. Simulated Heads
VE-14D



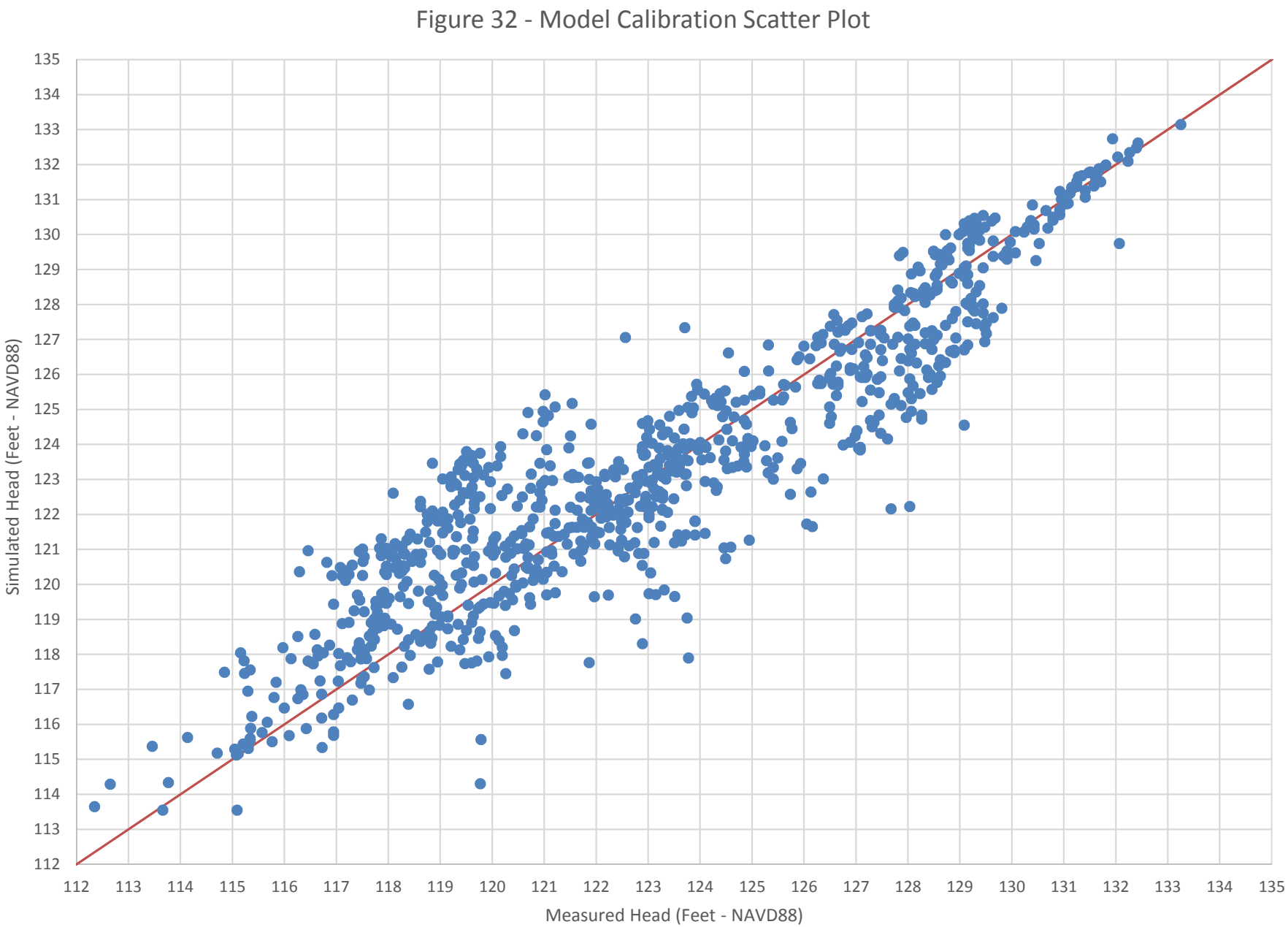
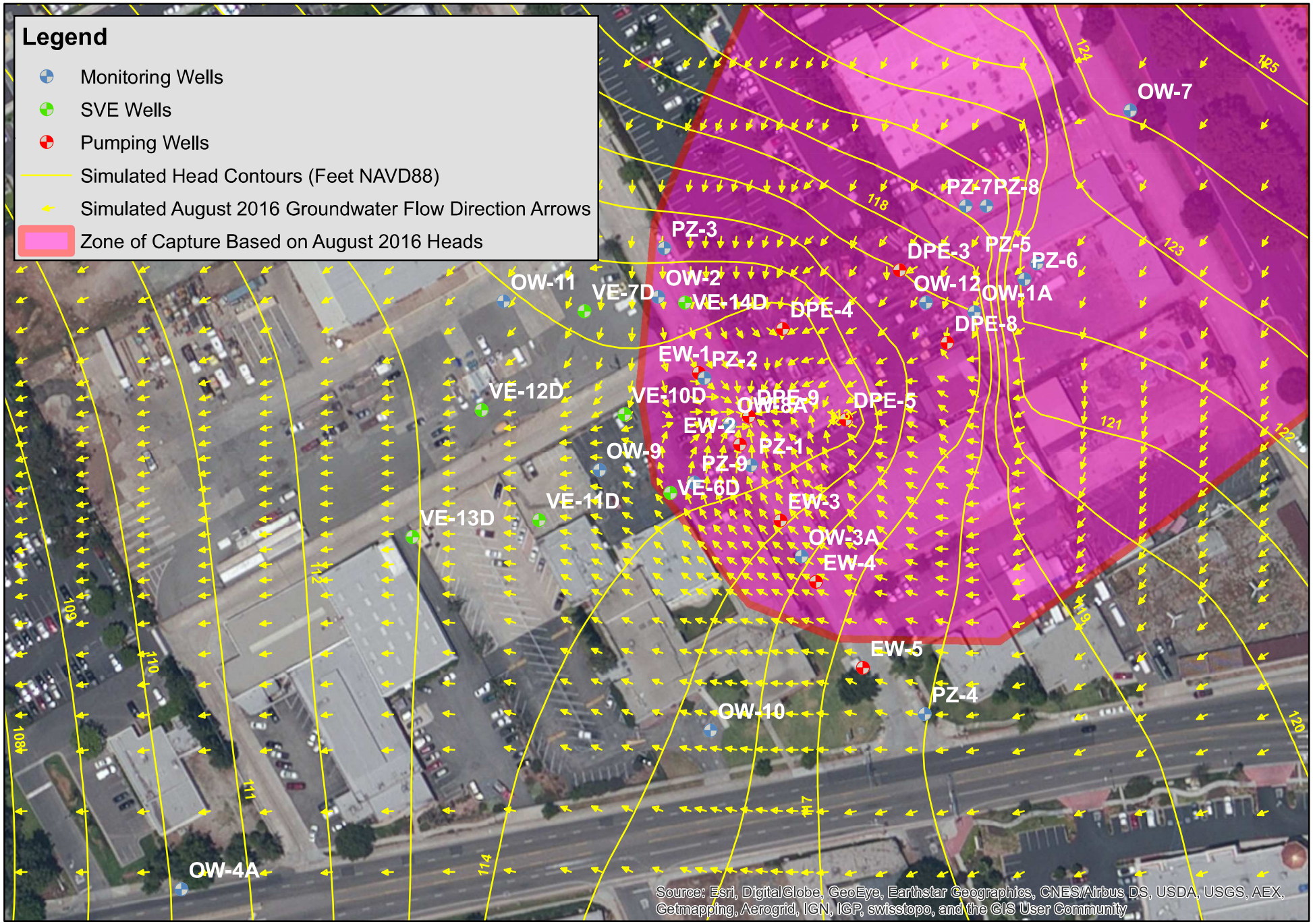


Figure 32 - Model Calibration Scatter Plot
Simulated Head (Feet - NAVD88)
Measured Head (Feet - NAVD88)
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135

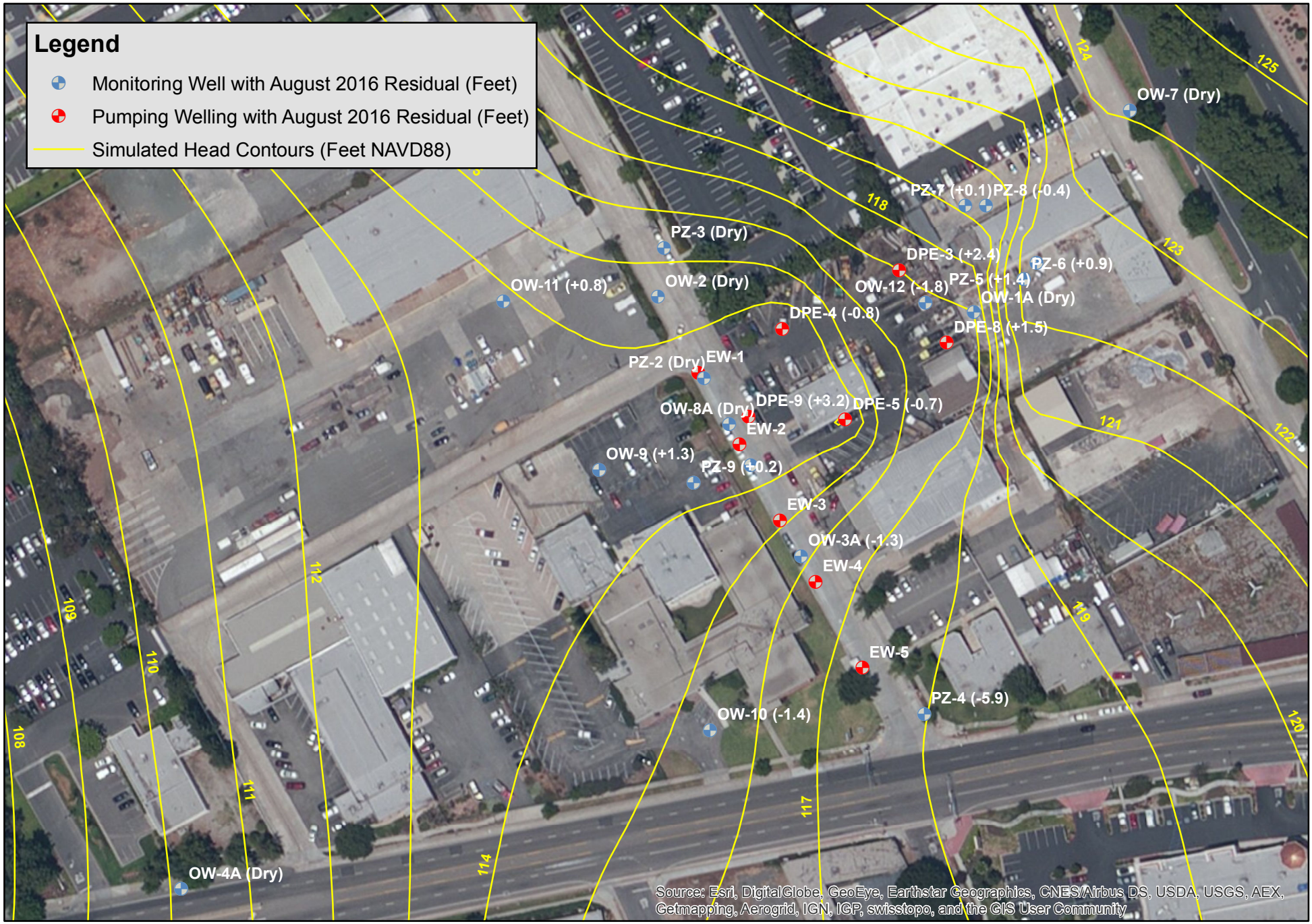


CDM Smith

0 50 100 200 Feet

N

Figure 33 - Simulated Flow Direction Arrows and Head Contours
August 2016 Conditions
Omega Chemical Facility
Capture Zone Model



CDM Smith

0 50 100 200 Feet

N

Figure 34 - Simulated Head Contours with Residuals
August 2016 Conditions
Omega Chemical Facility
Capture Zone Model

ATTACHMENT I

Mann Kendall Analysis

Mann-Kendall Analysis
Omega Chemical Superfund Site
September – 2016

Introduction

This memo summarizes the results from a Mann-Kendall test that was performed on groundwater data from two groundwater observation wells at the Omega Chemical Superfund Site, Whittier, California (the Site). In accordance with site-specific USEPA requirements, a groundwater treatment system (GWTS) was installed at the Site to prevent groundwater containing high concentrations of volatile organic compounds from migrating down-gradient of the Site. Groundwater concentrations are monitored twice per year in accordance with the USEPA approved Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System (PSVP) (CDM, 2007). Observation wells OW-9 and OW-10 are included in the semi-annual monitoring to provide information on the groundwater condition down-gradient of the Site. This Mann-Kendall test was conducted on the concentrations of Tetrachloroethene (PCE), Trichloroethene (TCE) and 1,4 - Dioxane (14DIOX) measured in OW9 and OW10. The Mann-Kendall test is used on Site data (with seasonal correction over a three-year period) to determine if a trend in the data is present. Effective capture of the up-gradient plume will be shown by stable or decreasing trends at down-gradient wells OW9 and OW10 (CDM, 2007).

According to the Interstate Technology Regulatory Council (ITRC),

"The Mann Kendall statistic (S) is calculated through pair-wise comparisons of each data point with all preceding data points, and determining the number of increases, decreases, and ties. Pairs of nondetects below the reporting limit are "ties" that do not increase or decrease the value of S. A positive value for S implies an upward or increasing temporal trend, whereas a negative value implies a downward or decreasing trend. A value of S near zero suggests there is no significant upward or downward trend. The magnitude of S measures the "strength" of the trend. A statistically significant trend is reported if the absolute value of S is greater than the "critical value" of S (obtained from a table)" (ITRC, 2013).

Data

The data set used in this assessment are provided in Table 1. The data were assessed with regard to seasonality; no seasonal correlation was identified. Concentrations that were not detected above the analytical method detection limit are included in the test at the reporting limit value. These data points are indicated in Table 1 with the label "(U)". No field-duplicate data were included in the test.

Method

The test was conducted using the software package "R" which is an open source software package used for statistical interpretation. Statistical confidence is set by the user-defined "alpha" variable. After calculating the "S" value, the probability (p-value) is calculated and is compared to the confidence interval ("alpha") to determine whether to accept or reject the null hypothesis (the null hypothesis is that there is no trend). The p-value is a probabilistic function and in this test is acquired through calculation utilizing the before mentioned statistical software. If the p-value is less than the corresponding alpha, then the test is considered statistically significant.

Results

A summary of the results of this study are presented below. Supporting time series charts are also provided as an Attachment A (pages 1-9).

Compound	Location	Kendall Score (S)	Alpha Value	-p-Value
PCE	OW10	-116	95% (0.05)	0.000013062
PCE	OW9	-75	95% (0.05)	0.0050008
TCE	OW10	-122	95% (0.05)	4.5075E-06
TCE	OW9	-62	95% (0.05)	0.020767
14DIOX	OW10	-53	95% (0.05)	0.034507
14DIOX	OW9	-4	95% (0.05)	0.90946

Discussion

Both OW9 and OW10 exhibit negative Kendall Scores (S) for all assessed compounds, signifying decreasing concentration trends. The strength of the trend is determined by the magnitude of S. In this case, concentrations at OW9 and OW10 show strong to moderate decreasing trends for all modeled compounds, except for 1,4-Dioxane at OW-9 where the trend is considered weaker. The result is statistically significant when the p-value is less than the corresponding alpha value. In this case, under the user-defined conditions shown in the table above, all trends are considered statistically significant, with the exception of OW9 – 1,4-Dioxane, which exhibits a weak trend with low confidence. The user-defined confidence in the result is shown by the alpha number; the lower the alpha, the higher the confidence.

The lower confidence in the trend for 1,4-Dioxane at OW9 results from wide variability in the data at that location. The trend showing decline in 1,4-Dioxane at OW10 is statistically valid. However, it should be noted that several data points used in the OW10 assessment were the associated laboratory reporting limit values (the actual results were non-detect). Some of the apparent decline in concentration from 2013 onwards is related to lower laboratory detection limits.

Observations

The following are observed:

- Concentrations of PCE and TCE are strongly and significantly trending downward OW-10, with a high level of confidence.

- Concentrations of 1,4-Dioxane at OW-10 are moderately trending downward with a high level of confidence. However, non-detect results included in the test data-set could be misrepresenting the concentration profile over time. Actual concentrations are potentially lower than the values used in the test.

- Concentrations of PCE and TCE are moderately to significantly trending downward at OW-9, with a high level of confidence.

- Concentrations of 1,4-Dioxane at OW-9 are weakly trending downward with a low level of confidence. Variability in the 1,4-Dioxane data at this location are resulting in the weak downward

trend. A stable condition would provide an S-value of zero at this location. An increasing trend would provide an S-value greater than zero.

Conclusions

In accordance with the objective stated in the PSVP, decreasing concentration trends are observed at down-gradient wells OW9 and OW10 (CDM, 2007).

References

CDM. (2007). *Performance Standards Verification Plan for Phase 1a Area Groundwater Treatment System.*

ITRC. (2013). *Groundwater Statistics and Monitoring Compliance, Statistical Tools for the Project Life Cycle.* Washington D.C.: http://www.itrcweb.org/gsmc-1/.

US EPA (2016) *CADDIS Volume 4 – Data Analysis*: https://www3.epa.gov/caddis/da_software_rscript1.html

Table 1

Mann-Kendall dataset 3rd Quarter 2016

Sample Location	Date	TCE - ug/l
OW10	3/4/2009	23
OW10	9/2/2009	20
OW10	12/29/2009	19
OW10	3/3/2010	16
OW10	6/23/2010	8.6
OW10	9/1/2010	9.8
OW10	2/3/2011	6.6
OW10	8/24/2011	3.7
OW10	2/21/2012	3.1
OW10	8/22/2012	5.4
OW10	3/1/2013	5.3
OW10	8/21/2013	5.2
OW10	2/18/2014	6.1
OW10	8/12/2014	4.9
OW10	2/25/2015	3.6
OW10	8/13/2015	2.6
OW10	2/11/2016	2.6
OW10	8/19/2016	1.2

Sample Location	Date	TCE - ug/l
OW9	3/3/2009	1200
OW9	9/1/2009	1100
OW9	12/29/2009	920
OW9	3/2/2010	1300
OW9	6/23/2010	630
OW9	8/31/2010	830
OW9	2/2/2011	1500
OW9	8/24/2011	1400
OW9	2/21/2012	440
OW9	8/21/2012	220
OW9	3/1/2013	220
OW9	8/21/2013	410
OW9	2/19/2014	480
OW9	8/13/2014	720
OW9	2/26/2015	760
OW9	8/14/2015	580
OW9	2/11/2016	280
OW9	8/19/2016	340

Sample Location	Date	PCE - ug/l
OW10	3/4/2009	220
OW10	9/2/2009	200
OW10	12/29/2009	210
OW10	3/3/2010	150
OW10	6/23/2010	110
OW10	9/1/2010	120
OW10	2/3/2011	68
OW10	8/24/2011	57
OW10	2/21/2012	48
OW10	8/22/2012	71
OW10	3/1/2013	61
OW10	8/21/2013	55
OW10	2/18/2014	73
OW10	8/12/2014	63
OW10	2/25/2015	48
OW10	8/13/2015	37
OW10	2/11/2016	27
OW10	8/19/2016	19

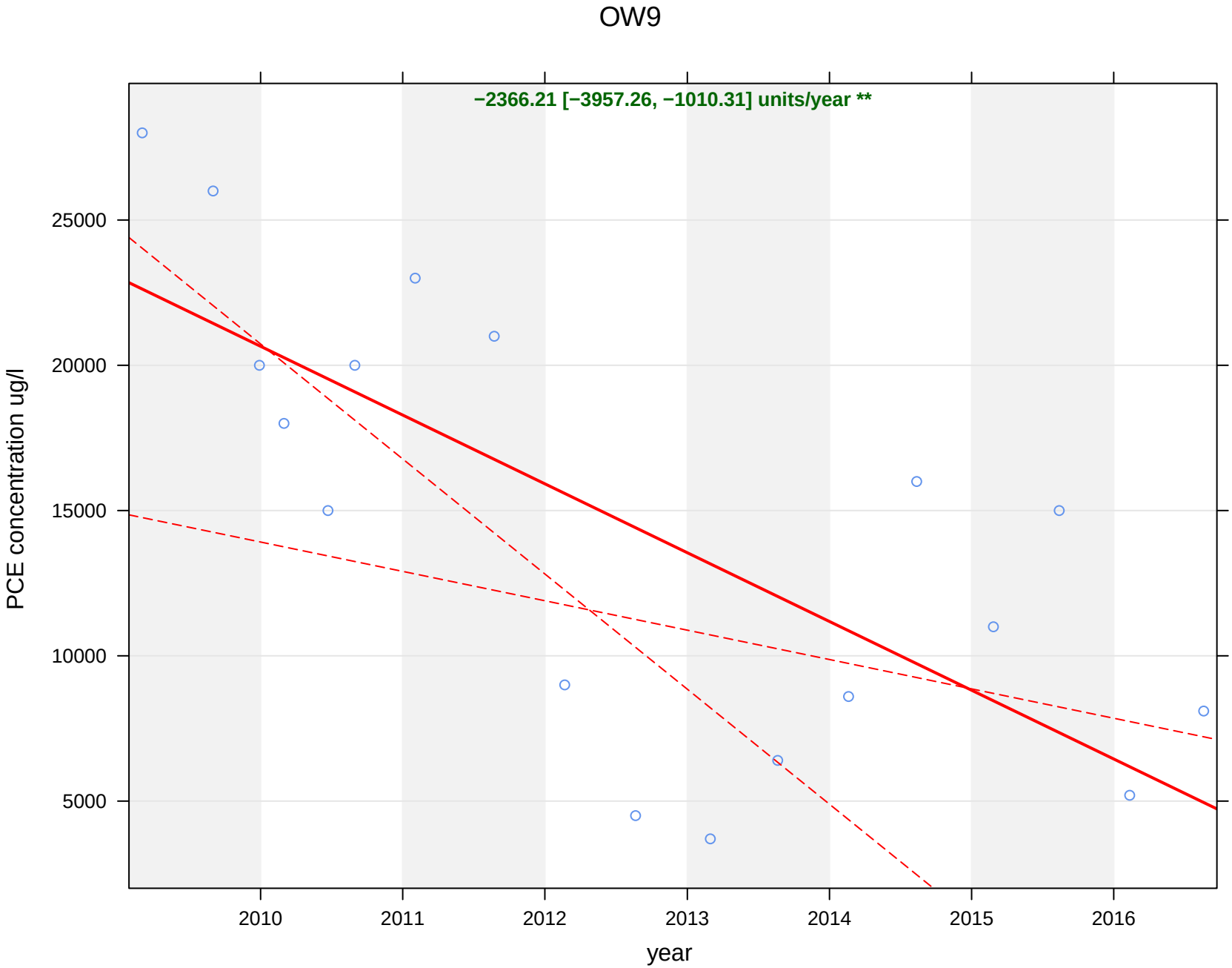
Sample Loctation	Date	PCE - ug/l
OW9	3/3/2009	28000
OW9	9/1/2009	26000
OW9	12/29/2009	20000
OW9	3/2/2010	18000
OW9	6/23/2010	15000
OW9	8/31/2010	20000
OW9	2/2/2011	23000
OW9	8/24/2011	21000
OW9	2/21/2012	9000
OW9	8/21/2012	4500
OW9	3/1/2013	3700
OW9	8/21/2013	6400
OW9	2/19/2014	8600
OW9	8/13/2014	16000
OW9	2/26/2015	11000
OW9	8/14/2015	15000
OW9	2/11/2016	5200
OW9	8/19/2016	8100

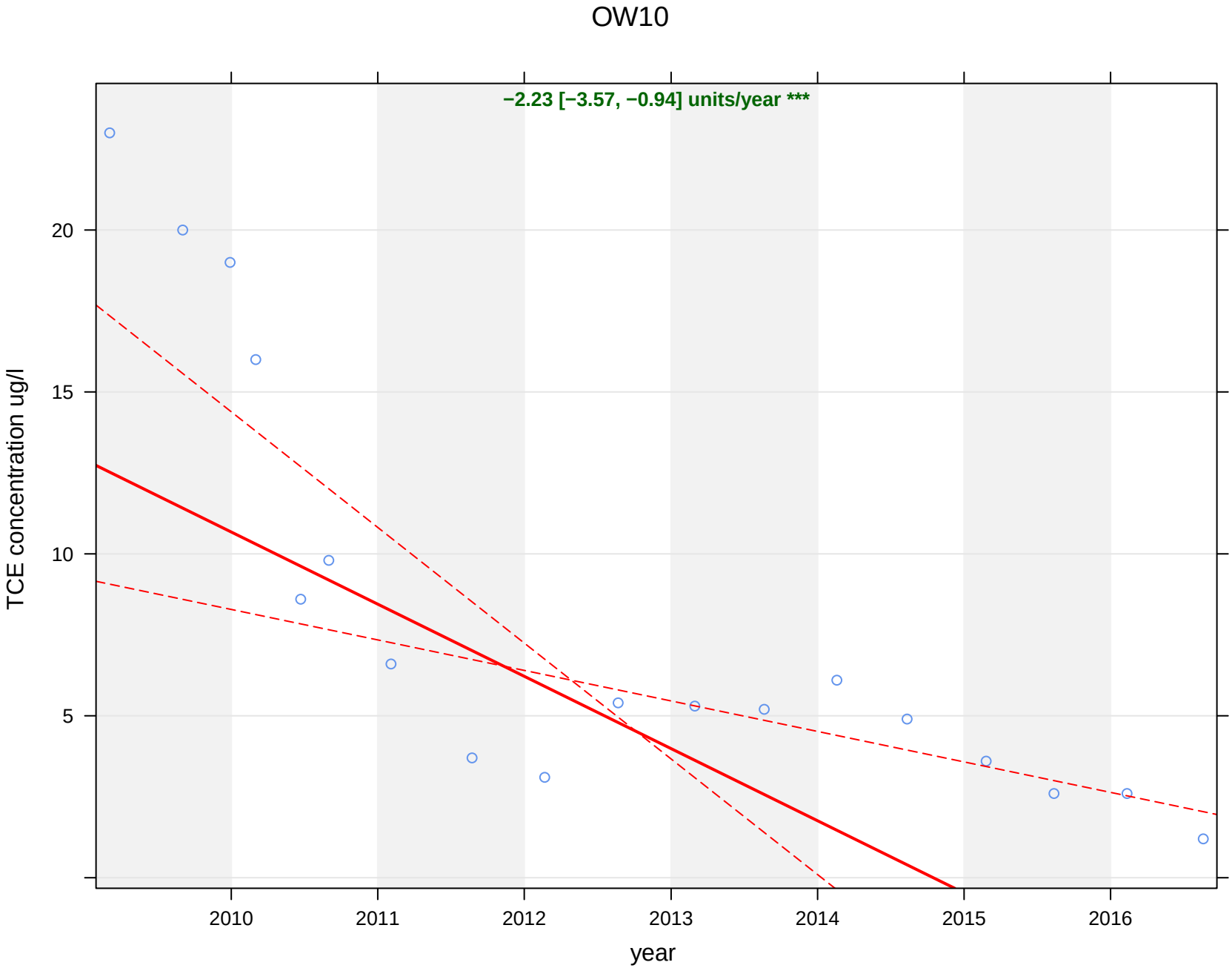
Sample Location	Date	1,4-Dioxane - ug/l
OW10	3/4/2009	0.47 U
OW10	9/2/2009	0.47 U
OW10	12/29/2009	0.47 U
OW10	3/3/2010	0.47 U
OW10	6/23/2010	0.47 U
OW10	9/1/2010	0.47 U
OW10	2/3/2011	0.47 U
OW10	8/24/2011	0.47 U
OW10	2/21/2012	0.49 U
OW10	8/22/2012	0.47 U
OW10	3/1/2013	0.21
OW10	8/21/2013	0.15
OW10	2/18/2014	0.12
OW10	8/12/2014	0.095
OW10	2/25/2015	0.25
OW10	8/13/2015	0.1
OW10	2/11/2016	1 U
OW10	8/19/2016	0.13

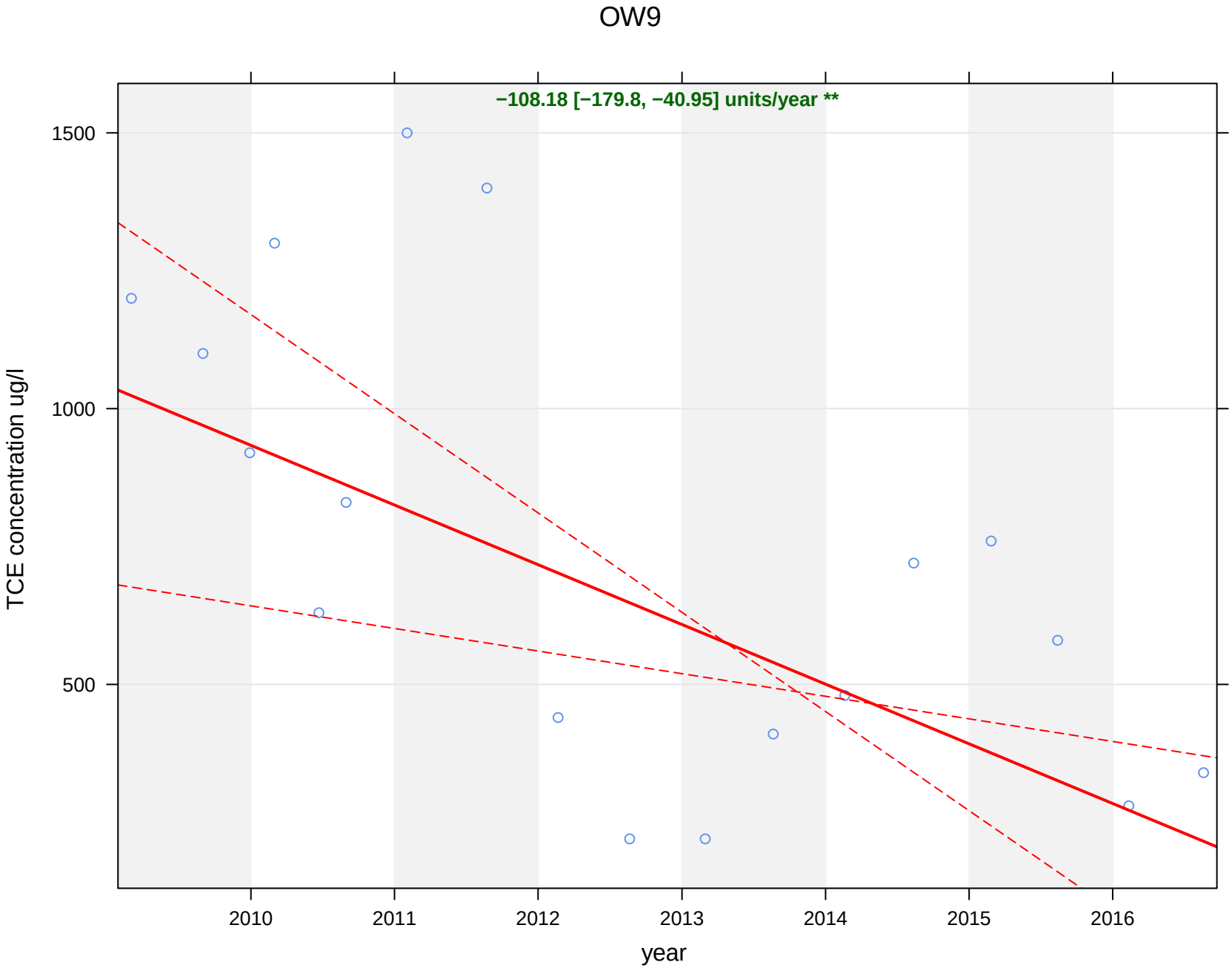
Sample Location	Date	1,4-Dioxane - ug/l
OW9	3/3/2009	1000
OW9	9/1/2009	830
OW9	12/29/2009	630
OW9	3/2/2010	910
OW9	6/23/2010	700
OW9	8/31/2010	930
OW9	2/2/2011	1600
OW9	8/24/2011	1400
OW9	2/21/2012	520
OW9	8/21/2012	260
OW9	3/1/2013	300
OW9	8/21/2013	430
OW9	2/19/2014	340
OW9	8/13/2014	960
OW9	2/26/2015	830
OW9	8/14/2015	990
OW9	2/11/2016	1300
OW9	8/19/2016	800

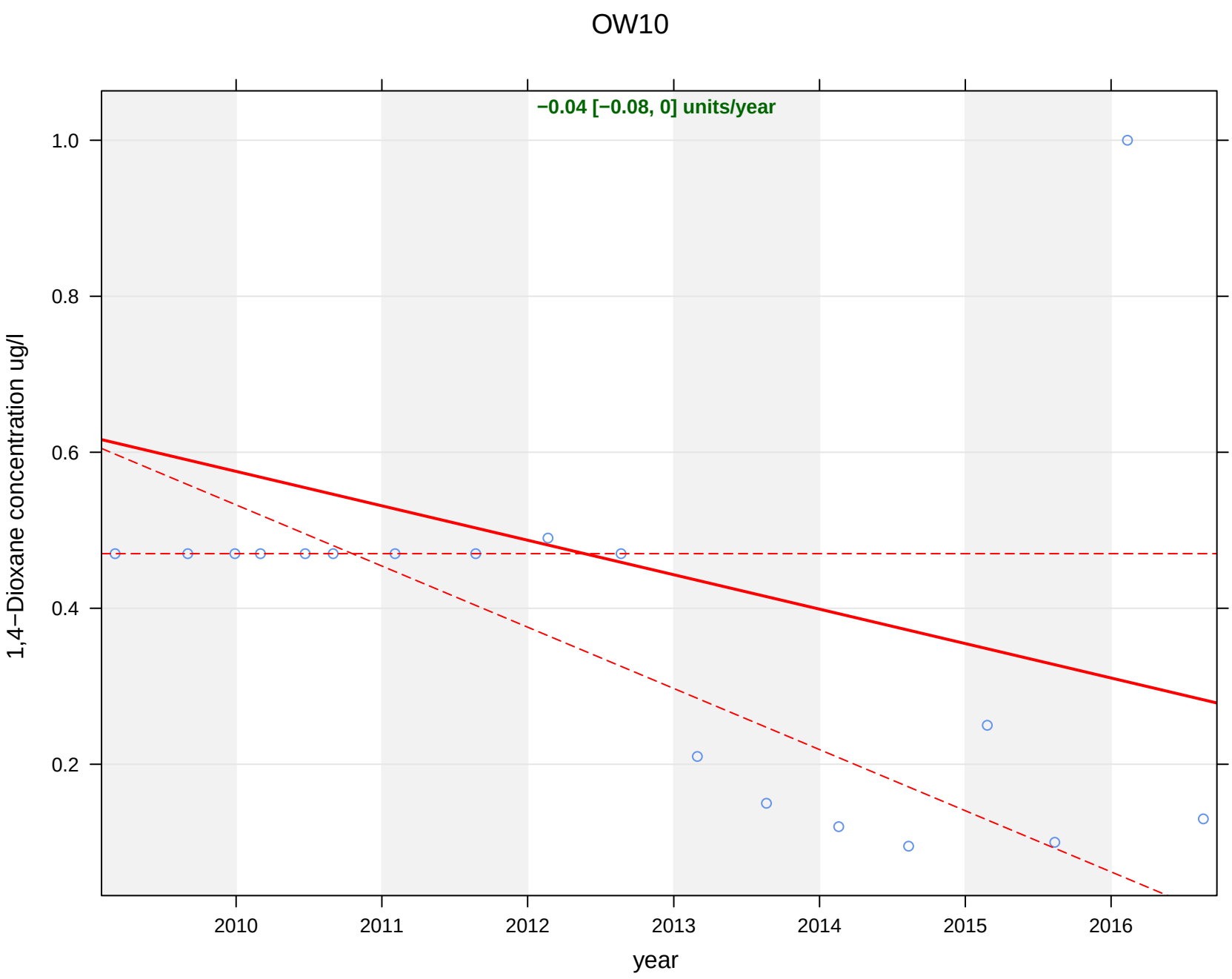
ATTACHMENT A

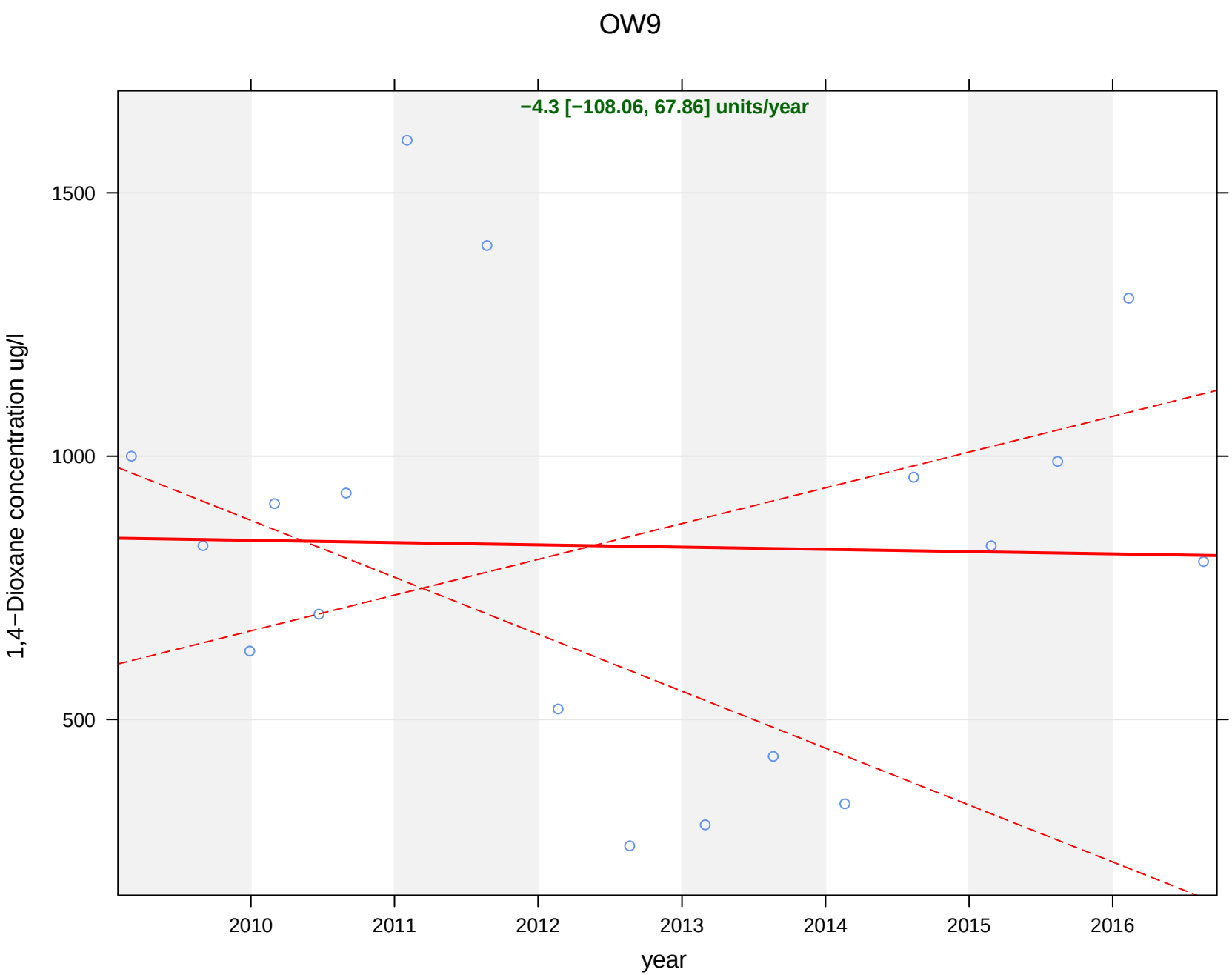
OW10
−20.46 [−31.8, −12.01] units/year ***
PCE concentration ug/l
200
150
100
50
2010
2011
2012
2013
2014
2015
2016
year


OW9
−2366.21 [−3957.26, −1010.31] units/year **
PCE concentration ug/l
25000
20000
15000
10000
5000
2010
2011
2012
2013
2014
2015
2016
year


OW10
−2.23 [−3.57, −0.94] units/year ***
TCE concentration ug/l
20
15
10
5
2010
2011
2012
2013
2014
2015
2016
year


OW9
−108.18 [−179.8, −40.95] units/year **
1500
1000
500
TCE concentration ug/l
2010
2011
2012
2013
2014
2015
2016
year


OW10
−0.04 [−0.08, 0] units/year
1.0
0.8
0.6
0.4
0.2
1,4−Dioxane concentration ug/l
2010
2011
2012
2013
2014
2015
2016
year


OW9
−4.3 [−108.06, 67.86] units/year
1,4−Dioxane concentration ug/l
1500
1000
500
2010
2011
2012
2013
2014
2015
2016
year