Draft Technical Memorandum

TO: Marv Coleman, Washington State Department of Ecology

CC: Eric Huseby, City of Tacoma

FROM: Sierra Mott and Jennifer Wynkoop

DATE: September 7, 2017

RE: **Long-Term Groundwater Monitoring Status Report No. 4 for July 2017**
Former Sauro's Cleanerama Site
Tacoma, Washington
Project No. 0094048.090.093

Introduction

On behalf of the City of Tacoma (City), Landau Associates, Inc. (LAI) is providing results for long-term groundwater monitoring activities at the former Sauro's Cleanerama site (site). Figure 1 shows the site location. The City has conducted semiannual sampling at nine monitoring wells as outlined in the Cleanup Action Plan (CAP; LAI 2014), which is part of the Agreed Order (No. DE 11080) between the City and Washington State Department of Ecology (Ecology). Under the CAP, the City is implementing a monitored natural attenuation (MNA) remedy that included 2 years of semiannual groundwater monitoring beginning in January 2016; this report summarizes the final semiannual groundwater monitoring event completed in July 2017. Semiannual groundwater monitoring will be followed by annual groundwater monitoring beginning in 2018 until groundwater at the site reaches cleanup goals (CAP estimate is 26 years of annual sampling). This technical memorandum includes a discussion of seasonal variability and a recommendation for the timing of the annual sampling program based on concentration trends. Groundwater monitoring includes collection of volatile organic compounds (VOCs) and MNA geochemical samples in accordance with the CAP.

Semiannual Groundwater Monitoring Program Summary

The existing site groundwater monitoring well network includes 17 wells. Of the 17 wells, nine were selected for long-term monitoring under the CAP. Figure 2 shows the monitoring well network and the nine wells selected for continued monitoring. Table 1 presents a sampling matrix for the long-term monitoring wells.

LAI completed the first year of semiannual sampling events in January and July 2016 (LAI 2016). The third sampling event was completed January 2017; this status report presents results of the final semiannual monitoring event completed July 11, 2017.

During the July 2017 sampling event, samples were collected in accordance with the Sampling and Analysis Plan (LAI 2013) and the sample matrix in Table 1. VOC and MNA samples are collected using a peristaltic pump at MW2. The other eight wells are sampled using passive diffusion bags for VOCs and dedicated Waterra foot valves for MNA parameters. VOC samples at RNS-MW6 were collected at two

discrete depths because of the relatively long screen (20 feet) and prior sampling has demonstrated stratification within the well; all other wells are sampled at a single depth. All samples were submitted under proper chain of custody to TestAmerica Laboratories, Inc. (TestAmerica) located in Tacoma, Washington.

All groundwater samples were analyzed by the laboratory for VOC constituents of concern: tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-Dichloroethene (cDCE), and vinyl chloride (VC) and MNA parameters (nitrate, nitrite, total organic carbon [TOC], sulfate, sulfide, chloride, and dissolved gasses [acetylene, methane, ethane, and ethene]). Samples were analyzed by the following methods: VOCs by US Environmental Protection Agency (EPA) Method 8260; nitrate/nitrite by EPA Method 300.0; TOC by EPA Method 5310B; sulfate/sulfide/chloride by EPA Method 4500; and dissolved gasses by EPA Method RSK-175. Field parameters were also collected, including conductivity and dissolved oxygen (DO) using a field meter (YSI model 556 or equivalent) and ferrous iron using a HACH® field test kit (Model IR-18C). A duplicate sample was collected at LAI-MW4 (Dup1) for quality control purposes. Data will be electronically submitted to Ecology's Environmental Information Management system following submittal of this report. Table 2 presents the analytical methods, reporting limits, preservatives, and holding times. Table 3 presents VOC analytical data. Table 4 presents MNA analytical data. Time series plots of the VOC data are presented in Attachment 1.

Volatile Organic Compound Results

VOC analytical results from the July 2017 sampling event are consistent with historical results. At three wells (LAI-MW1, LAI-MW4, and LAI-MW5), all VOC concentrations have dropped below their respective cleanup levels. At the six remaining wells, one or more VOCs exceeded cleanup levels:

- LAI-MW2, MW13, and RNS-MW6 (42.5 and 52.5) continue to have the highest concentrations of VOCs. Results indicate concentrations above cleanup levels for all four constituents (except for cDCE at MW13) with PCE and TCE concentrations having the largest exceedances of cleanup levels. Concentrations of PCE at these wells ranged from 190 micrograms per liter (µg/L) to 670 µg/L and concentrations of TCE ranged from 53 µg/L to 180 µg/L. The cleanup level for both TCE and PCE is 5 µg/L.
- LAI-MW3 results indicate concentrations of PCE and TCE exceeded cleanup levels; however, concentrations are somewhat lower (73 µg/L and 35 µg/L, respectively) than at the three wells discussed above.
- RNS-MW2 results indicate the concentration of PCE continues to exceed the cleanup level (at 14 µg/L).
- MW2 results indicate the concentration of VC narrowly exceeded the cleanup level of 0.2 µg/L with a concentration of 0.23 µg/L.

VOC concentration time series plots (Attachment 1) were examined to identify data trends over time. LAI-MW1, LAI-MW4, and LAI-MW5 historically showed decreasing concentration trends with recent trends indicating that concentrations of all VOCs remain below cleanup levels and near or below the

laboratory reporting limits. MW2 and MW13 have also shown decreasing concentration trends for all four VOCs over time. RNS-MW6 is sampled at two depths within the screen; recent data at this well appear to show decreasing trends from historical maximum concentrations in 2012 and 2013. Data trends at LAI-MW2 and LAI-MW3 previously remained relatively flat; however, VOC concentrations appear to have declining trends over the last four sampling events. Concentration trends at RNS-MW2 vary by constituent. PCE concentrations appear to have transitioned from an increasing trend to a decreasing trend over the last four sampling events; meanwhile, TCE concentrations appear to have an increasing trend over the same period. This pattern of decreasing parent compound concentrations and increasing daughter compound concentrations is indicative of degradation through reductive dechlorination and demonstrates that decreasing concentrations are not merely a result of dilution. cDCE and VC at RNS-MW2 remain at very low or non-detect concentrations, indicating that degradation has not yet progressed to the later stages. The laboratory data package for the most recent sampling event (July 2017) is provided in Attachment 2.

Monitored Natural Attenuation Results

Natural attenuation of chlorinated ethenes occurs through several mechanisms with the primary mechanism being biologically mediated reductive dechlorination. For reductive dechlorination to occur, the aquifer must be reducing. Measures of aquifer redox conditions include DO, oxygen-reduction potential, nitrate, ferrous iron, sulfate, and methane. MNA data appear to suggest favorable conditions for reductive-dechlorination at LAI-MW5 (near the source area) and LAI-MW4 (the most downgradient well). Indicators of reductive dechlorination are summarized below:

- Ferrous iron was detected at 3.0 milligrams per liter (mg/L) at LAI-MW4 and 2.0 mg/L at LAI-MW5.
- Sulfate was detected at low concentrations at LAI-MW4 (1.7 mg/L).
- Methane was detected at a concentration of 5.2 mg/L at LAI-MW4 and 8.3 mg/L at LAI-MW5.

At the remaining seven wells, data were not conclusive regarding the potential for reductive dechlorination; however, concentrations at most wells appear to be declining and concentration trends between parent and daughter compounds at RNS-MW2 appear to indicate that reductive dechlorination is occurring. The laboratory data package for the most recent sampling event (July 2017) is provided in Attachment 2. July 2017 MNA data is presented in Table 4.

Annual Groundwater Monitoring Schedule

Under the CAP, the City was required to complete semiannual groundwater monitoring for the initial two years of long-term groundwater monitoring. July 2017 was the final semiannual sampling event. LAI analyzed data trends from the last four sampling events (January and July 2016 and 2017) for the four VOCs: PCE, TCE, cDCE, and VC. Of the 57 individual detections of the four constituents at the 10 monitoring points, 41 of the maximum detected values occurred in January, while only 16 of the

maximum values occurred in July. Examination of the time series plots also indicates that for wells exhibiting seasonal variability, higher concentrations typically occur in January. Therefore, LAI and the City recommend that annual groundwater monitoring be conducted in January starting in 2018.

Occurrence of Problems

None occurred.

Planned Groundwater Monitoring Activities

Groundwater monitoring results will continue to be submitted to Ecology 60 days after completion of sampling activities. If Ecology accepts the recommendation to conduct annual groundwater monitoring in January, the next scheduled sampling event will occur in January 2018.

* * * * * * * * * *

Please contact us if you have any questions concerning groundwater monitoring activities or results presented in this status report.

LANDAU ASSOCIATES, INC.

Sierra Mott
Project Scientist

Jennifer Wynkoop
Principal Scientist

SMM/JWW/ljl
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Attachments

Figure 1: Vicinity Map
Figure 2: Sauro's Cleanerama Monitoring Well Network

Table 1: Sample Matrix
Table 2: Sampling Laboratory and Field Parameter Details
Table 3: Constituents of Concern Groundwater Analytical Results
Table 4: Monitored Natural Attenuation Parameters

Attachment 1: Constituents of Concern Concentration Time Series Plots
Attachment 2: July 2017 Laboratory Data Package

References

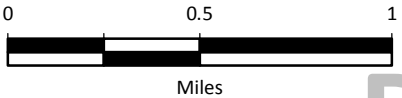
LAI. 2013. Draft Sampling and Analysis Plan, Former Sauro's Property, Tacoma, Washington. Landau Associates, Inc. January 24.

LAI. 2014. Draft Cleanup Action Plan, Former Sauro's Cleanerama Site, Tacoma, Washington. Landau Associates, Inc. September 5.

LAI. 2016. Memorandum: Long-Term Groundwater Monitoring Status Report No. 1 for January 2016, Former Sauro's Cleanerama Site, Tacoma, Washington. From Sierra Mott, Landau Associates, Inc., to Marv Coleman, Washington State Department of Ecology. March 3.









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Data Source: Esri 2012

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Sauro's Cleanerama Tacoma, Washington	**Vicinity Map**	Figure 1

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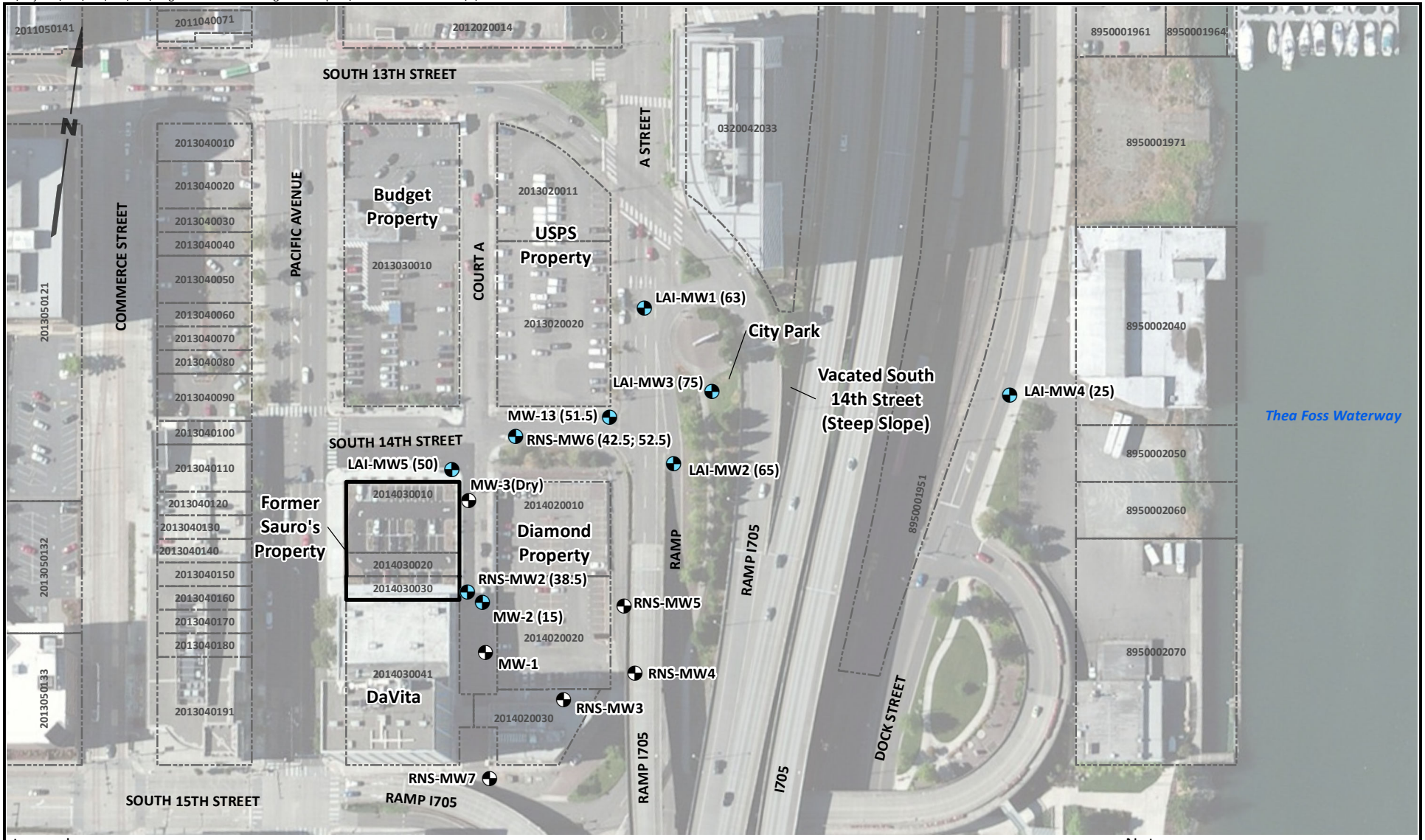

Legend

- Long-Term Groundwater Monitoring Well (and Well Depth)
- Other Existing Monitoring Well
- Subject Property
- Tax Parcels with Parcel ID

0 150 300

Scale in Feet

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Data Source: Esri World Imagery, 2013.

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

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Sauro's Cleanerama
Tacoma, Washington

Sauro's Cleanerama
Monitoring Well Network

Figure
2

Table 1
Sample Matrix
Sauro's Cleanerama
Tacoma, Washington

Location	VOC Sampling Depth (ft)	VOC Sampling Method	MNA Parameters Sampling Depth (ft)	MNA Parameters Sampling Method
LAI-MW1	63	PDB	63	WAT
LAI-MW2	65	PDB	65	WAT
LAI-MW3	75	PDB	75	WAT
LAI-MW4	25	PDB	25	WAT
LAI-MW5	50	PDB	50	WAT
MW2-PP	15	PP	15	PP
MW13	51.5	PDB	51.5	WAT
RNS-MW2	38.5	PDB	38.5	WAT
RNS-MW6 [(a)]	42.5 and 52.5	PDB	47.5	WAT

Note:
(a) For RNS-MW6, where there are two VOC sampling depths, the MNA sampling depth is the mid-point between the two VOC sampling depths.

Abbreviations/Acronyms:
ft = feet
MNA = monitored natural attenuation
PDB = passive diffusion bag
PP = peristaltic pump with dedicated tubing
VOC = volatile organic compound
WAT = (dedicated) Waterra foot valve (with dedicated 5/8-inch HDPE tubing)

Table 2
Sampling Laboratory and Field Parameter Details
Sauro's Cleanerama
Tacoma, Washington

Groundwater Analytical Parameters	EPA Analytical Method	Practical Quantitation Limit	Preservation	Maximum Holding Time (Days)
Volatile Organic Compounds				
Tetrachloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Trichloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
cis-1,2-Dichloroethene	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Vinyl Chloride	8260C	0.2 µg/L	Add HCl to pH<2; Store cool at 6°C	14
Monitored Natural Attenuation				
Chloride	SM 4500-CL-E	1.0 mg/L	Store cool at 6°C	28
Nitrate (NO_3) (Total) as N	353.2	0.2 mg/L [(a)]	Store cool at 6°C	48 hours
Nitrite (NO_2) (Total) as N	353.2	0.4 mg/L [(a)]	Store cool at 6°C	48 hours
Total Organic Carbon	SM 5310B	1.00 mg/L	Add 2mL 9N H2SO4 pH<2; Store at 6°C	28
Sulfate (SO_4) (Total)	SM 4500-SO_4 E	1.2 mg/L	Store cool at 6°C	28
Sulfide (SO_2) (Total)	SM 4500-S2 D	0.150 mg/L	Store cool at 6°C	7
AMEE	RSK 175	0.0050 mg/L	Store cool at 6°C	14

Groundwater Field Parameters	Data Collection Method	Instrument	Units
Monitored Natural Attenuation			
Conductivity	Field meter	YSI [(b)]	µS/cm
Dissolved Oxygen	Field meter	YSI	mg/L
Oxidation Reduction Potential	Field meter	YSI	units +/- mV
pH	Field meter	YSI	unitless
Temperature	Field meter	YSI	(°C)
Ferrous Iron (Fe^{2+})	Field meter	Hach® Kit	mg/L
Turbidity	Field meter	Turbidity Meter	NTU
Water Level	Field meter	Water Level Indicator	0.01 ft

Notes:

(a) Reporting limits for nitrate and nitrite were raised prior to the July 2016 sampling event due to laboratory capabilities.

(b) YSI shall be recalibrated daily.

Abbreviations/Acronyms:

AMEE = acetylene, methane, ethane, and ethene
°C = degrees Celsius
EPA = U.S. Environmental Protection Agency
ft = foot
µg/L = micrograms per liter
mg/L = milligrams per liter
mL = millimeters
mV = millivolts
µS/cm = microSiemens per centimeter
NTU = nephelometric turbidity units

Table 3
Constituents of Concern Groundwater Analytical Results
Sauro's Cleanerama
Tacoma, Washington

Analyte	Groundwater MTCA Method A CUL or Federal/State MCL (µg/L)	Sample Location, Laboratory ID, Sample Date, and Sample Type										
		LAI-MW1 580-69828-5 7/11/2017 N	LAI-MW2 580-69828-4 7/11/2017 N	LAI-MW3 580-69828-6 7/11/2017 N	LAI-MW4 580-69828-2 7/11/2017 N	Dup1 580-69828-3 7/11/2017 FD	LAI-MW5 580-69828-12 7/11/2017 N	MW2 580-69828-8 7/11/2017 N	MW13 580-69828-7 7/11/2017 N	RNS-MW2 580-69828-9 7/11/2017 N	RNS-MW6-42.5 580-69828-10 7/11/2017 N	RNS-MW6-52.5 580-69828-11 7/11/2017 N
Volatile Organic Compounds (µg/L; SW-846 8260C)												
cis-1,2-Dichloroethene	70 (a)	0.20 U	**94**	**35**	**0.25**	**0.27**	**0.22**	**1.3**	**47**	**0.24**	**130**	**99**
Tetrachloroethene	5	**0.30**	**270**	**73**	0.20 U	0.20 U	**0.63**	**0.40**	**190**	**14**	**670**	**400**
Trichloroethene	5	0.90 U-LB, FB	**95**	**35 J-HL**	0.20 U	0.92 U-LB, FB	0.88 U-LB, FB	0.91 U-LB, FB	**53**	**1.3 J-HL**	**180**	**110**
Vinyl Chloride	0.2	0.20 U	**0.54**	0.20 U	0.20 U	0.20 U	0.20 U	**0.23**	**0.27**	0.20 U	**0.33**	**0.38**

Notes:

(a) Cis-1,2-DCE does not have a MTCA Method A CUL for groundwater; therefore, the Federal/State primary MCL value of 70 µg/L is used as the CUL.
Bold text indicates detected analyte.
Green highlighting = compound detected above cleanup criteria.
J-HL= The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was greater than control limits.
U = The compound was not detected at the reported concentration.
U-,LB, FB = Result was U qualified as nondetect due to target analyte detections in the associated method and/or trip blanks.

Abbreviations:

µg/L = micrograms per liter
CUL = cleanup level
FD = field duplicate
ID = identification
MCL = maximum contaminant levels
MTCA = Model Toxics Control Act
N = primary sample

Table 4
Monitored Natural Attenuation Parameters
Sauro's Cleanerama
Tacoma, Washington

Sample Location:	LAI-MW1	LAI-MW2	LAI-MW3	LAI-MW4	LAI-MW4	LAI-MW5	MW2	MW13	RNS-MW2	RNS-MW6-52.5
Laboratory ID:	580-69828-5	580-69828-4	580-69828-6	580-69828-2	580-69828-3	580-69828-12	580-69828-8	580-69828-7	580-69828-9	580-69828-11
Sample Date:	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017	7/11/2017
Sample Type:	N	N	N	N	FD	N	N	N	N	N
Natural Attenuation Parameters (mg/L; EPA 300.0/SM 4500-S2-D/SM 5310B)										
Chloride	**53**	**13**	**19**	**22**	**22**	**25**	**55**	**13**	**41**	**26**
Nitrogen, Nitrate	**1.2**	0.20 U	**0.53**	0.20 U	0.20 U	0.20 U	**2.0**	**0.67**	**2.6**	**0.64**
Nitrogen, Nitrite	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U
Sulfate	**20**	**19**	**20**	**1.8**	**1.7**	**1.4**	**14**	**30**	**26**	**28**
Sulfide, Total	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Total Organic Carbon	**1.8**	**1.8**	**2.0**	**3.7**	**4.3**	**9.6**	**3.3**	**2.0**	**1.8**	**2.7**
Dissolved Gasses (mg/L; RSK-175)										
Acetylene	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Ethane	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	**0.0083**
Ethene	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U
Methane	0.0050 U	**0.012**	0.0050 U	**5.2**	**4.9**	**8.3**	**0.47**	**0.0061**	0.0050 U	**0.043**
Field Parameters										
Dissolved Oxygen (mg/L)	2.39	2.24	2.38	3.98	3.81	0.94	1.50	2.65	6.69	3.17
Oxidation Reduction Potential (mV)	59.8	57.1	55.9	6.8	5.9	-16.5	58.4	57.0	60.1	54.7
Iron (mg/L)	0.0	0.4	1.0	3.0	3.0	2.0	--	0.0	0.0	0.0

Notes:

Bold = detected compound

U = The compound was not detected at the reported concentration.

Abbreviations:

mg/L = milligrams per liter

mV = millivolt

EPA = US Environmental Protection Agency

FD = field duplicate

ID = identification

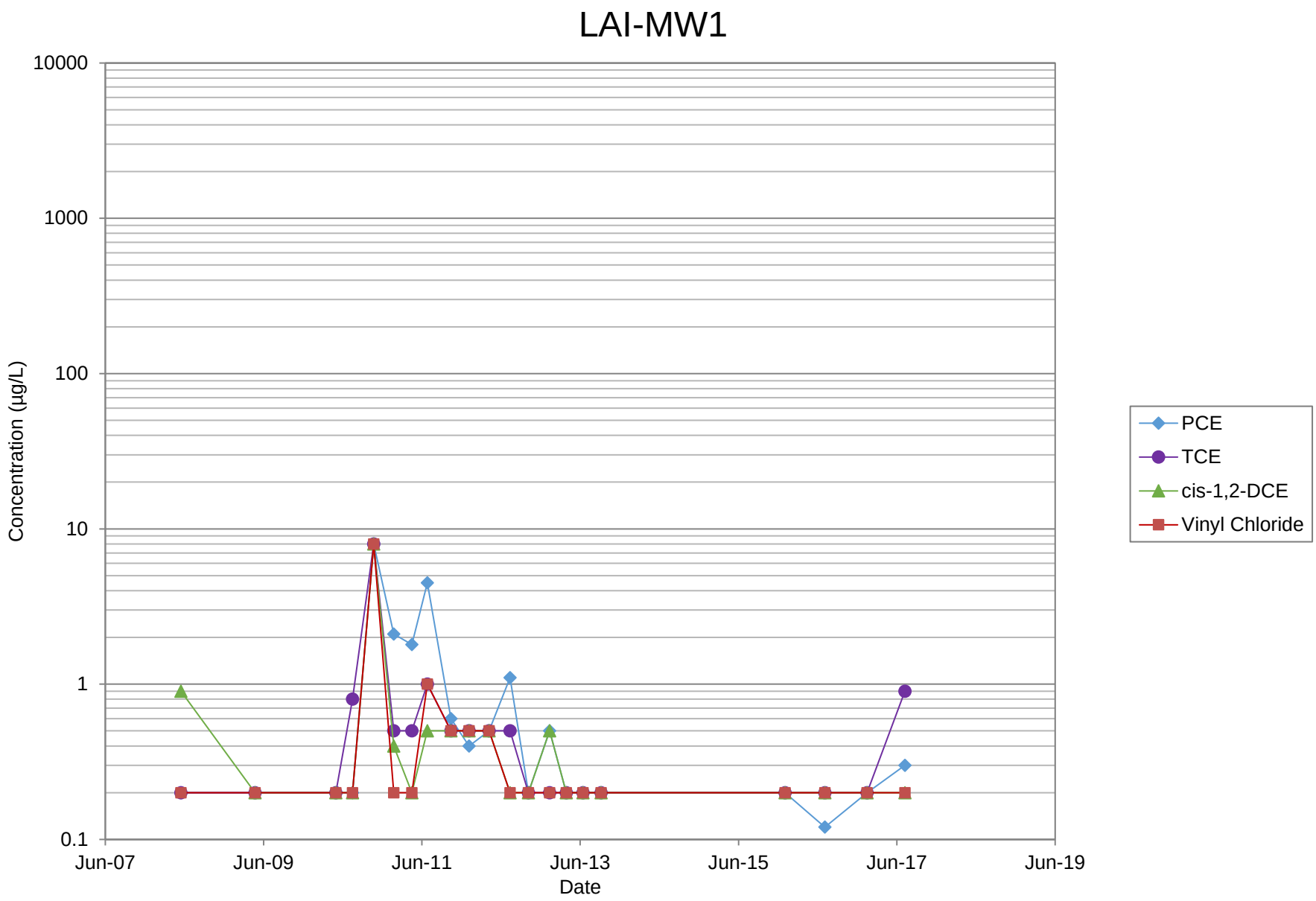
N = primary sample

ATTACHMENT 1

Constituents of Concern Concentration Time Series Plots

Note

1. The analytical laboratory erroneously reported down to the method detection limit in January and July 2016.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Concentration (µg/L)
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Jun-09
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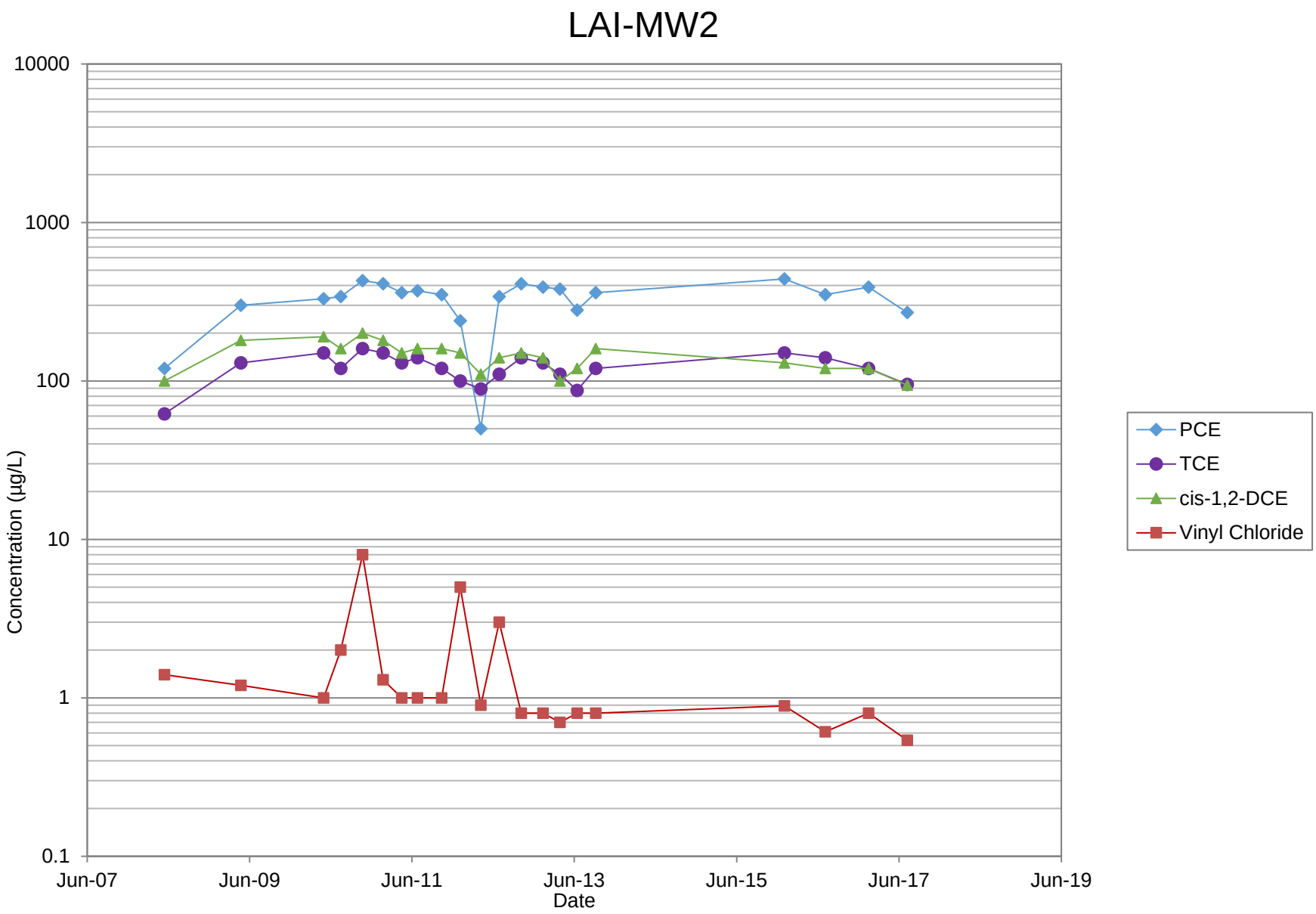
Jun-15
Jun-17
Jun-19
Date
PCE
TCE
cis-1,2-DCE
Vinyl Chloride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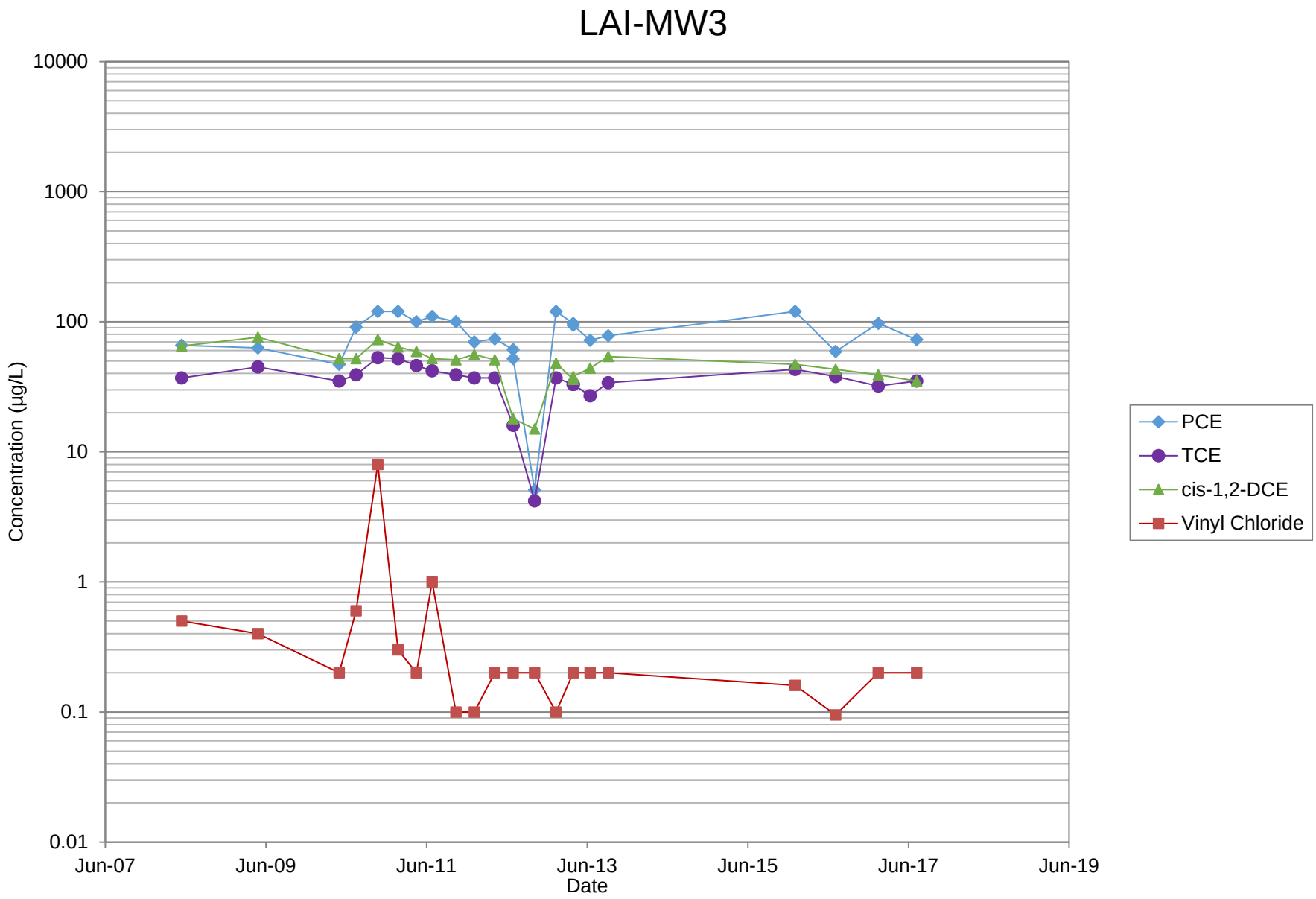
Vinyl Chloride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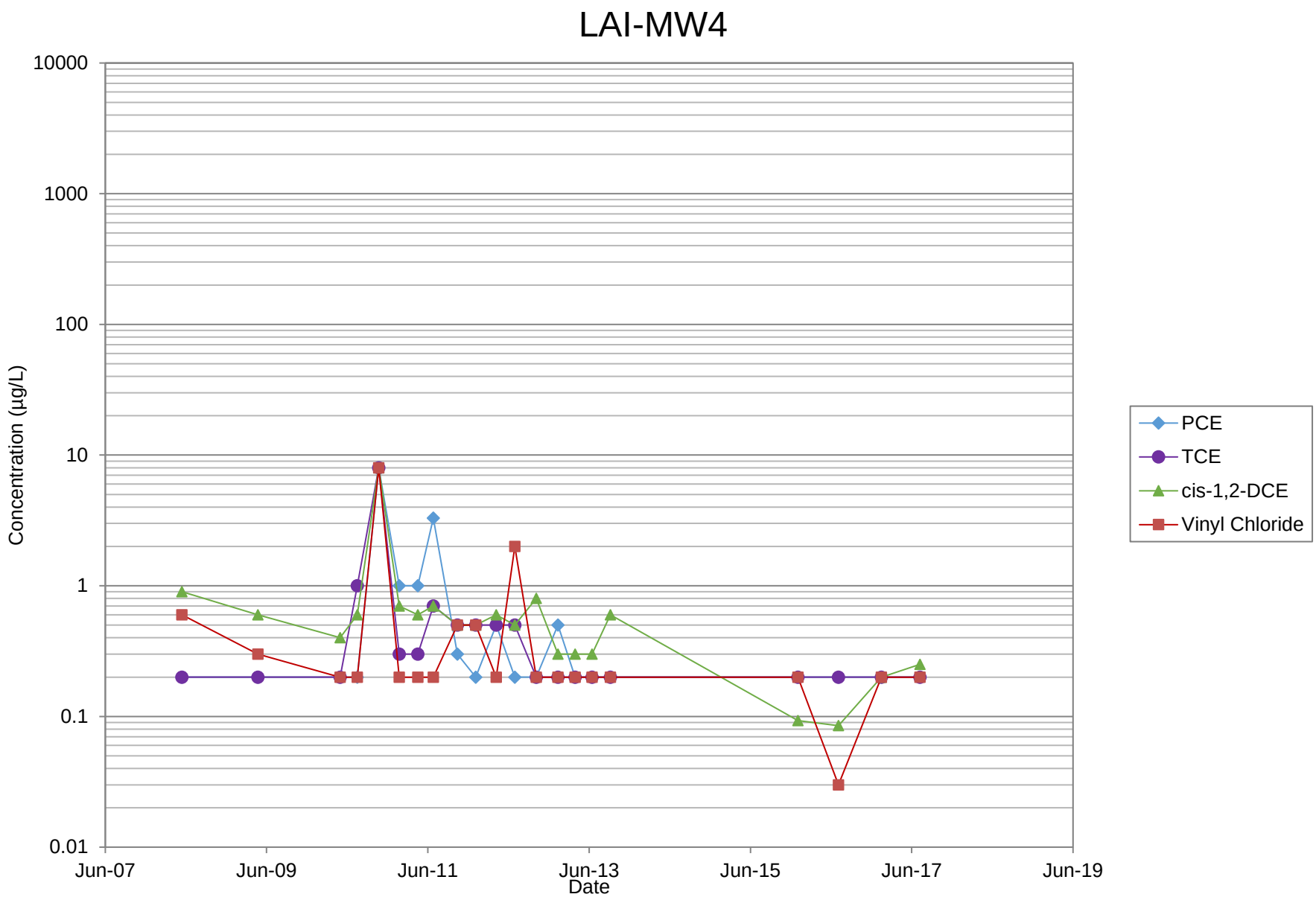
Vinyl Chloride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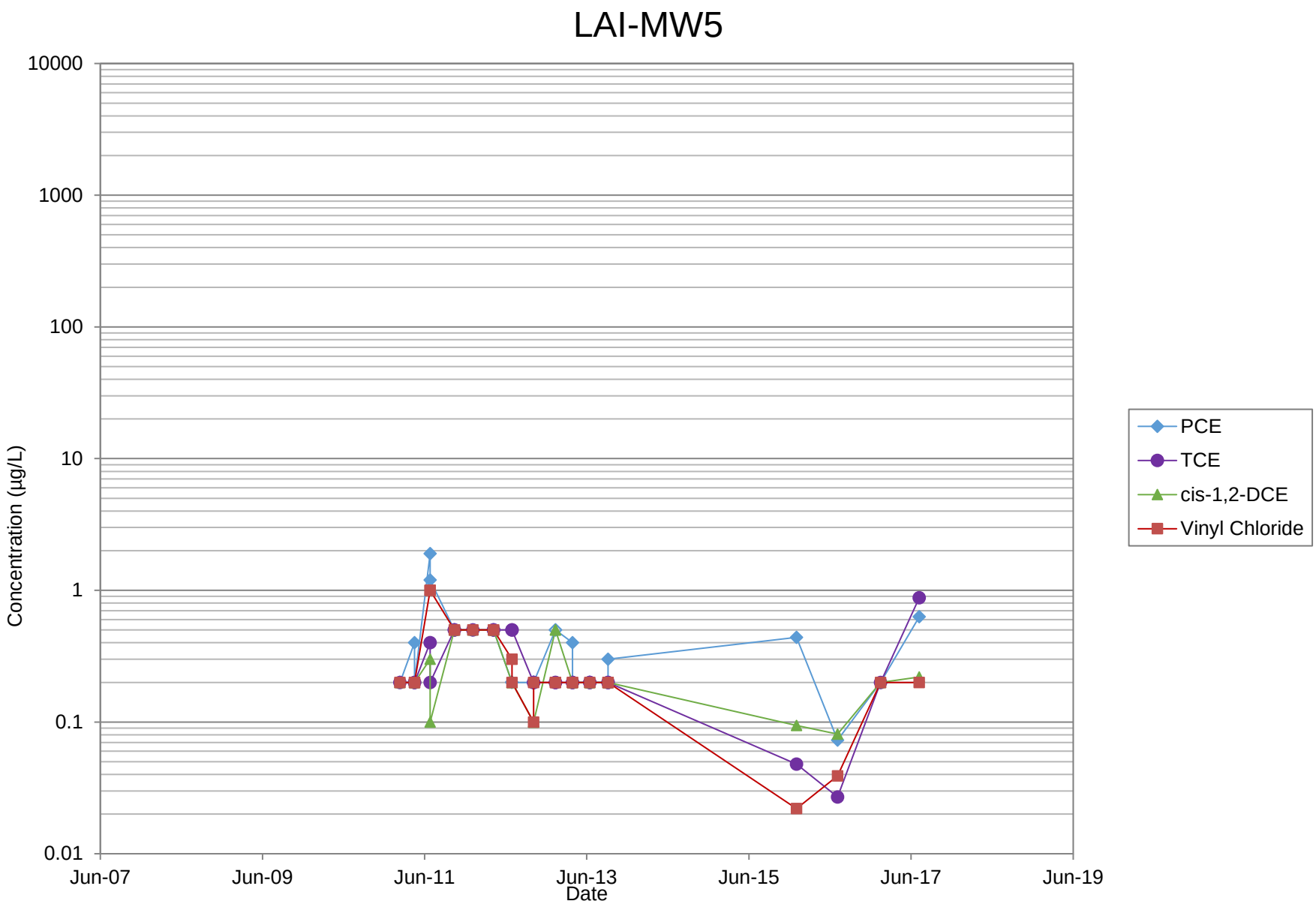
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Date
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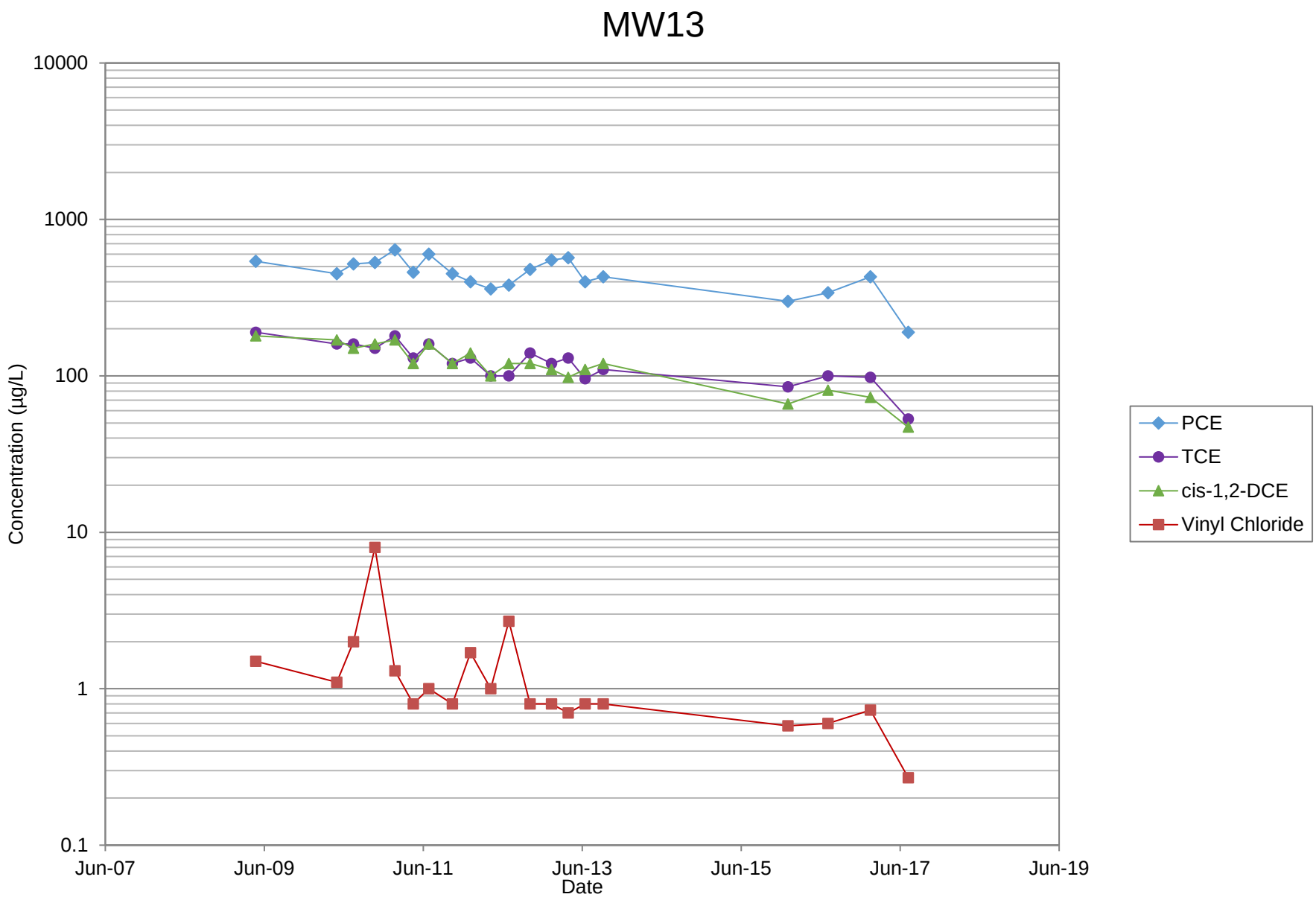
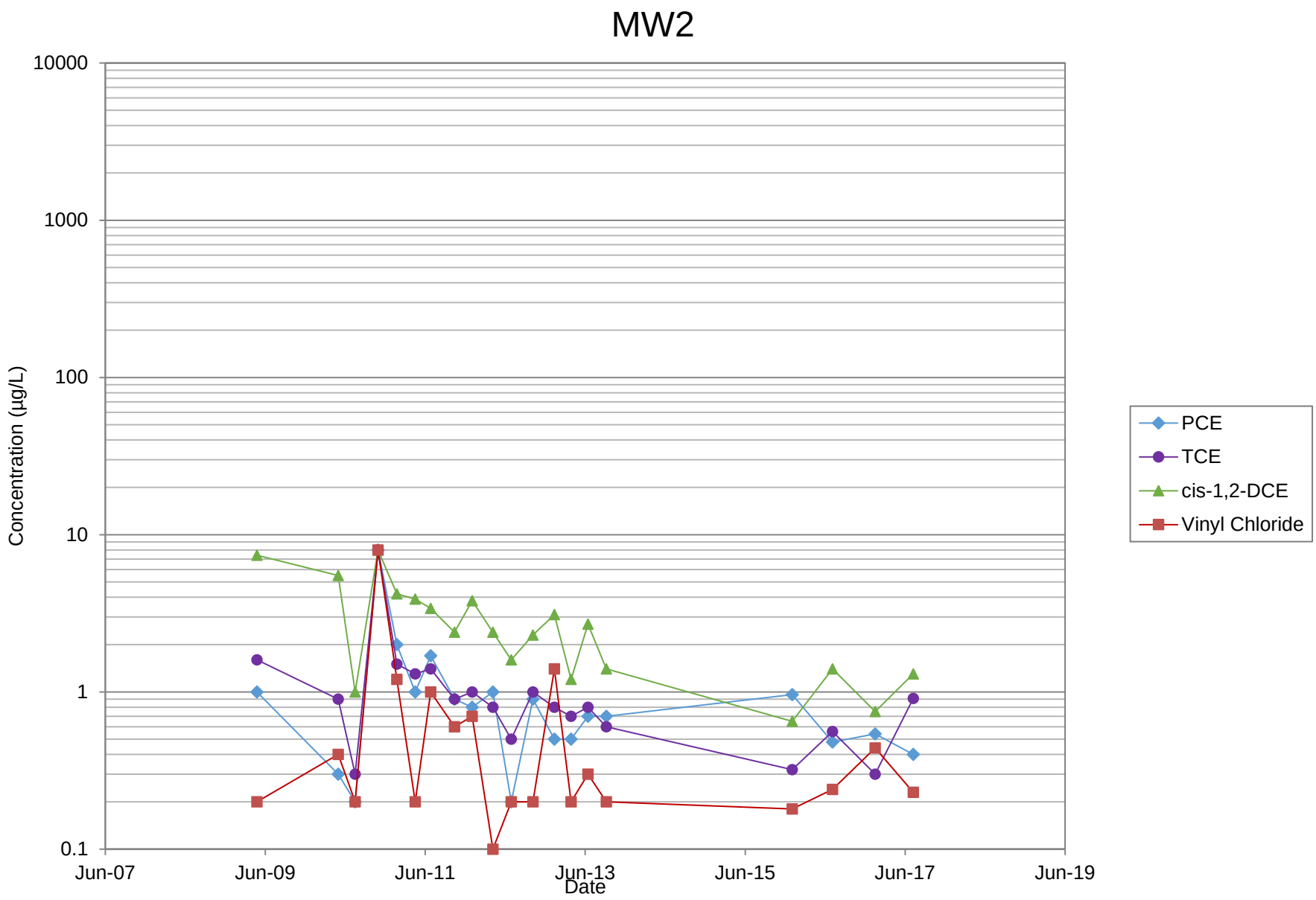
TCE
cis-1,2-DCE
Vinyl Chloride



Note:

1. Data prior to 2008 not shown.



Note:

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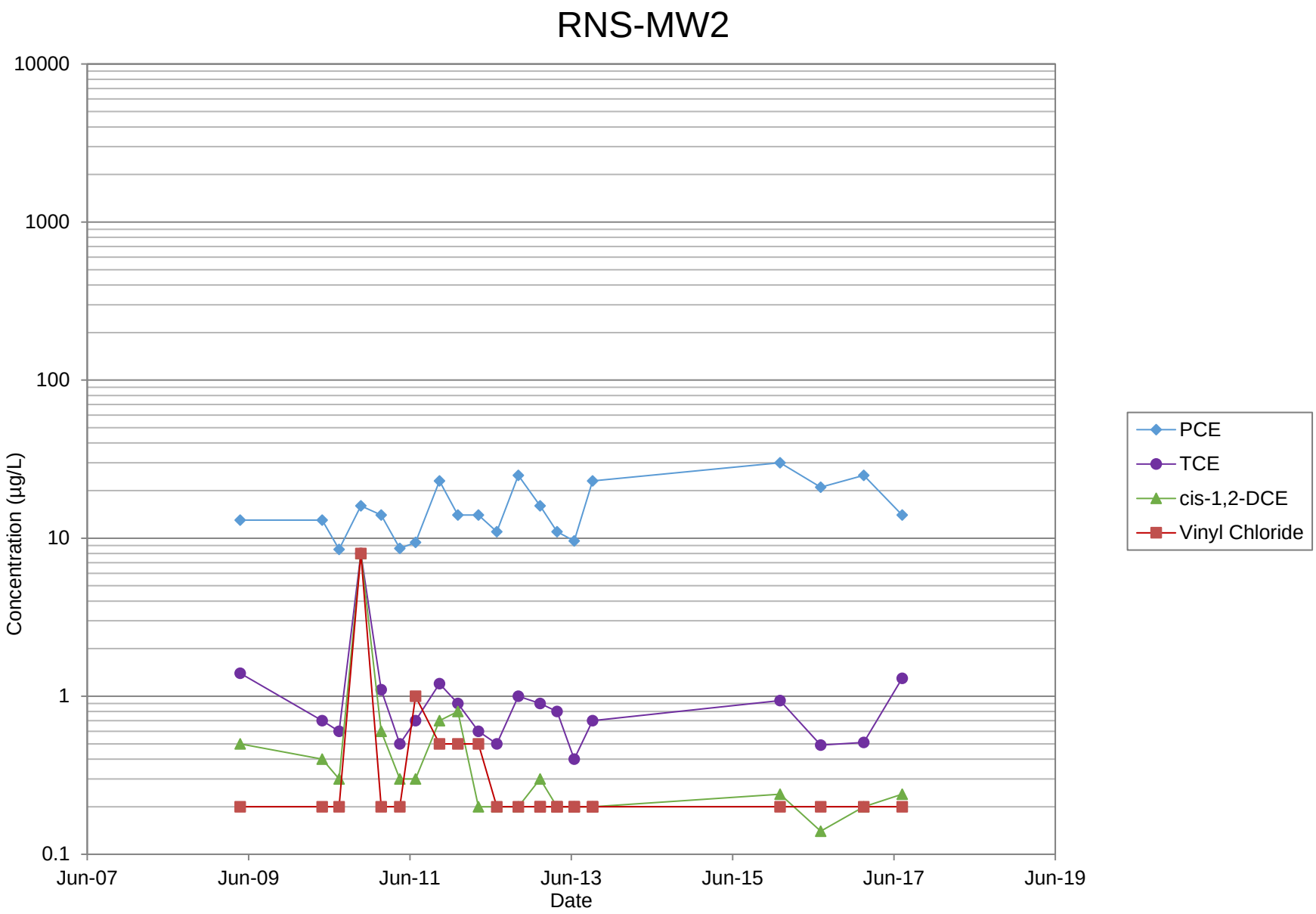

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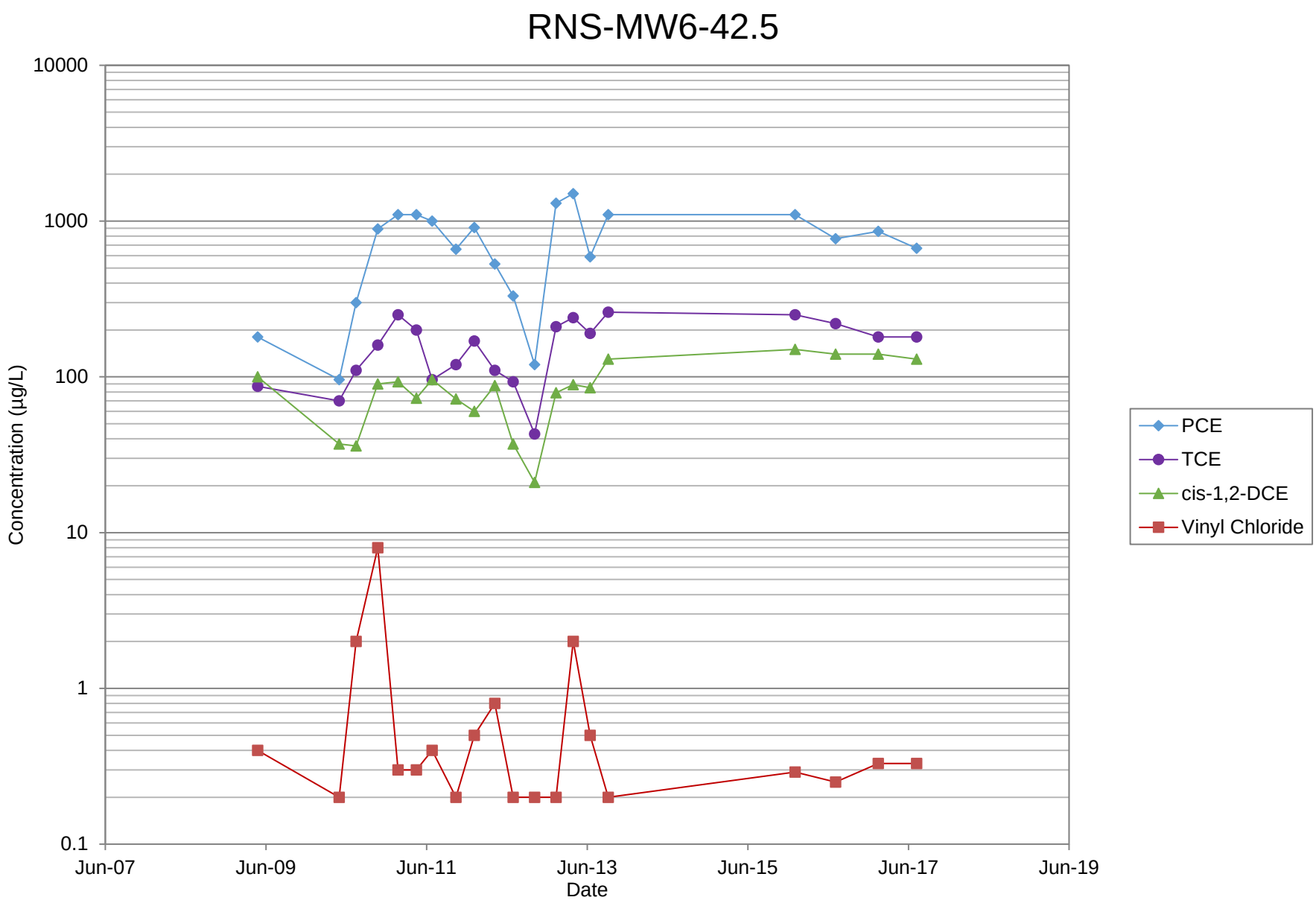

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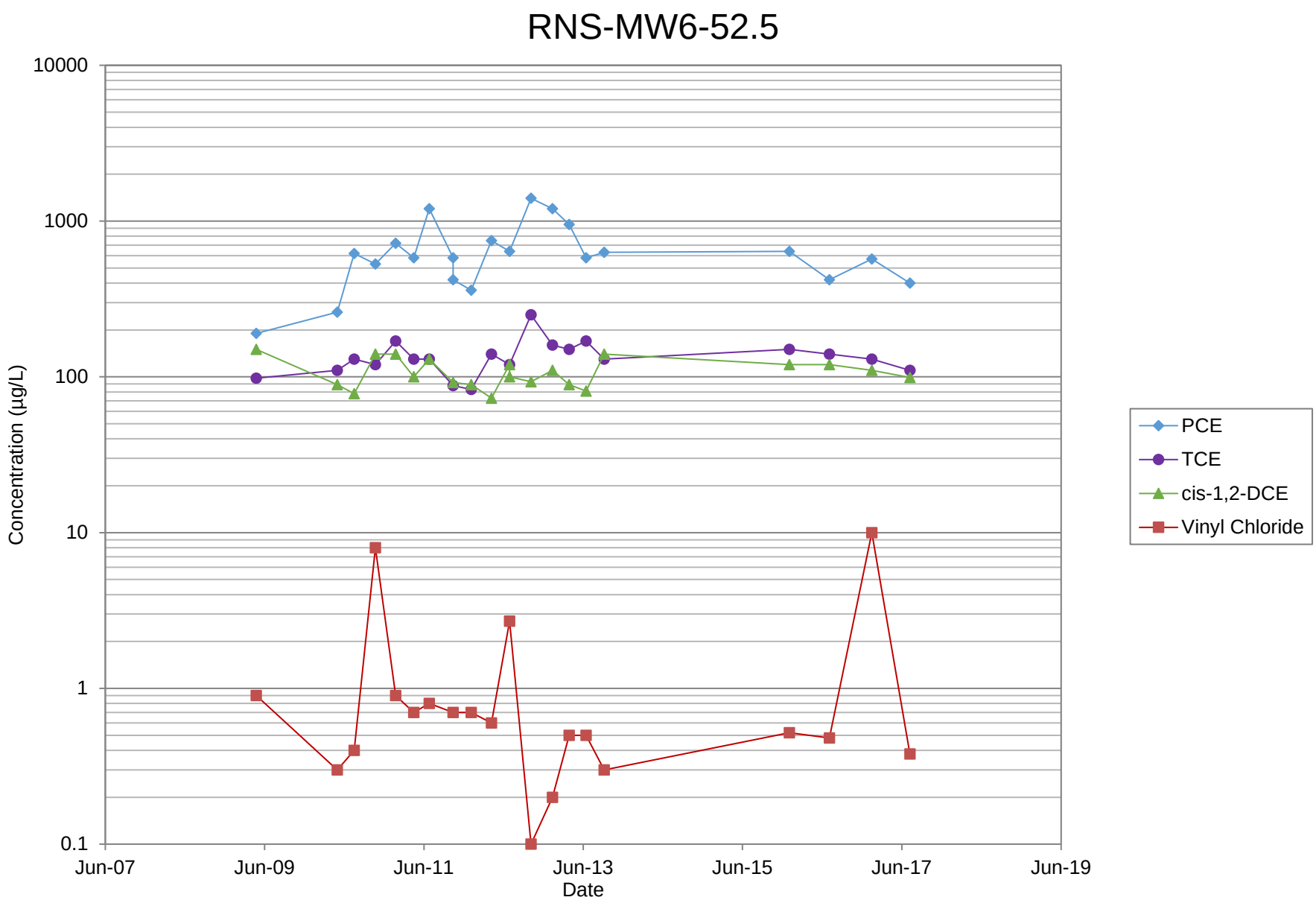

Note:

1. Data prior to 2008 not shown.

ATTACHMENT 2

July 2017 Laboratory Data Package

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-69828-1
Client Project/Site: Sauro's Cleanerama
Revision: 2

For:
Landau & Associates, Inc.
2107 South C Street
Tacoma, Washington 98402

Attn: Jennifer Wynkoop

Authorized for release by:
8/8/2017 5:01:58 PM

Sheri Cruz, Project Manager I
(253)922-2310
sheri.cruz@testamericainc.com

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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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Job ID: 580-69828-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-69828-1

Comments
8/8/17 revised for Method Blank not reporting Trichloroethene.

8/7/17 revise report for reporting 8260C_LL for the following: 580-69828-1 Trichloroethene, 580-69828-3 Trichloroethene, 580-69828-5 trichloroethene and tetrachloroethene, 580-69828-6 Trichloroethene, 580-69828-8 Trichloroethene and tetrachloroethene, 580-69828-9 trichloroethene, and 580-69828-12 for cis-1,2-dichloroethene, trichloroethene, and tetrachloroethene. They want these analytes from these samples to report for both low level and medium level. Keep the medium level waters as reported but add these analytes in to report from low level so they have both sets of data for these samples and only these analytes.

Receipt
The samples were received on 7/11/2017 5:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 5.3º C and 9.0º C. Samples are considered acceptable since they were received same day as collection and chilling per method.

GC/MS VOA
Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: LAI-MW2-20170711 (580-69828-4), LAI-MW3-20170711 (580-69828-6), MW13-20170711 (580-69828-7), MW13-20170711 (580-69828-7[MS]), MW13-20170711 (580-69828-7[MSD]), RNS-MW6-42.5-20170711 (580-69828-10) and RNS-MW6-52.5-20170711 (580-69828-11). Elevated reporting limits (RLs) are provided. Dilutions were reported down to MDL to capture J flag hits since the initial low level analyses had QC issues for some analytes that could not be reported from that run.

Method(s) 8260C: MB 580-252121 had a hit for Tetrachloroethene above the MDL but less than half the RL; therefore the data has been reported and qualified.

Method(s) 8260C: Trichloroethene was detected in the method blank above the reporting limit. Samples had detections for this compound. The samples were analyzed by medium level 8260 to confirm the results. Both sets of data have been reported per client request. (MB 580-251427/6)

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 580-251427 recovered outside control limits for the following analytes: trichloroethene. These analytes were biased high in the LCS and were detected in the associated samples; therefore, the samples were analyzed by medium level 8260 and both sets of data have been reported per client request.

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

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

General Chemistry
Method(s) SM 4500 S2 D: Sulfide analytical batch 280-381064:

The matrix spike / matrix spike duplicate (MS/MSD) recoveries were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (280-99095-G-1), (280-99095-G-1 MS) and (280-99095-G-1 MSD)

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

Definitions/Glossary

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-69828-1	Trip Blank-20170711	Water	07/11/17 00:01	07/11/17 17:43
580-69828-2	LAI-MW4-20170711	Water	07/11/17 09:07	07/11/17 17:43
580-69828-3	DUP1-20170711	Water	07/11/17 09:10	07/11/17 17:43
580-69828-4	LAI-MW2-20170711	Water	07/11/17 10:55	07/11/17 17:43
580-69828-5	LAI-MW1-20170711	Water	07/11/17 11:55	07/11/17 17:43
580-69828-6	LAI-MW3-20170711	Water	07/11/17 12:40	07/11/17 17:43
580-69828-7	MW13-20170711	Water	07/11/17 13:45	07/11/17 17:43
580-69828-8	MW2-20170711	Water	07/11/17 14:45	07/11/17 17:43
580-69828-9	RNS-MW2-20170711	Water	07/11/17 15:25	07/11/17 17:43
580-69828-10	RNS-MW6-42.5-20170711	Water	07/11/17 15:55	07/11/17 17:43
580-69828-11	RNS-MW6-52.5-20170711	Water	07/11/17 16:20	07/11/17 17:43
580-69828-12	LAI-MW-5-20170711	Water	07/11/17 17:20	07/11/17 17:43

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Loc: 580
69828

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☒ Short Hold

Chain of Custody Record

Client: Landau Associates	Client Contact: Sierra Mott	Date: 7/11/2017	Chain of Custody Number: 31338
Address: 2107 South C Street	Telephone Number (Area Code)/Fax Number:	Lab Number:	Page 1 of
City: Tacoma; State: WA; Zip Code: 98406	Sampler: KMG/RLB	Lab Contact:	
Project Name and Location (State): Sauro's Cleanerama	Billing Contact:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs (8260C)	Sulfate (300.0)	Nitrate (300.0)	TOC (SM5310)	Sulfide (SM4500)	AMEE (RK-175V6)	Chloride (300)	MS/MSD
Trip Blank - 20170711	—	—		X						X			X							
LA1-MW4-20170711	7/11/17	907		X			X	X		X		X	X	X	X	X	X	X	X	
Dup1-20170711	7/11/17	910		X			X	X		X		X	X	X	X	X	X	X	X	
LA1-MW2-20170711	7/11/17	1055		X			X	X		X		X	X	X	X	X	X	X	X	
LA1-MW1-20170711	7/11/17	1155		X			X	X		X		X	X	X	X	X	X	X	X	
LA1-MW3-20170711	7/11/17	1240		X			X	X		X		X	X	X	X	X	X	X	X	
MW13-20170711	7/11/17	1345		X			X	X		X		X	X	X	X	X	X	X	X	X
MW2-20170711	7/11/17	1445		X			X	X		X		X	X	X	X	X	X	X	X	
RNS-MW2-20170711	7/11/17	1525		X			X	X		X		X	X	X	X	X	X	X	X	
RNS-MW6-42.5-20170711	7/11/17	1555		X						X			X							
RNS-MW6-52.5-20170711	7/11/17	1620		X			X	X		X		X	X	X	X	X	X	X	X	
LA1-MW-5-20170711	7/11/17	1720		X			X	X		X		X	X	X	X	X	X	X	X	

Special Instructions/Conditions of Receipt

TB A2 Cooler ___ Cor 5.3 w/o Unc 6.1
Cooler Dsc Lg Blue @Lab ___
Wet/Packs Packing bub
Clidro

TB A2 Cooler ___ Cor 9.0 w/o Unc 9.8
Cooler Dsc Lg Blue @Lab ___
Wet/Packs Packing bub

Cooler: ☒ Yes ☐ No Cooler Temp: ___

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

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

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other Standard

QC Requirements (Specify):

	Sign/Print	Date	Time
1. Relinquished By	Katie McGaughlin / Katie Gauglitz	7/11/17	1743
2. Relinquished By			
3. Relinquished By			

	Sign/Print	Date	Time
1. Received By	Tom Blankinship	7/11/17	1743
2. Received By			
3. Received By			

Comments

580-69828 Chain of Custody

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

8/8/2017 (Rev. 2)

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cruz, Sheri L	Carrier Tracking No(s):	COC No: 580-48079.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheri.cruz@testamericainc.com	State of Origin: Washington	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		Job #: 580-69828-1
Address: 4955 Yarrow Street,	Due Date Requested: 7/24/2017			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: Sauro's Cleanerama	Project #: 58009425			
Site:	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 - 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)	RSK_175/ (MOD) Local Method	SM4500_S2_D/ Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
LAI-MW4-20170711 (580-69828-2)	7/11/17	09:07 Pacific		Water			X	X	4	
DUP1-20170711 (580-69828-3)	7/11/17	09:10 Pacific		Water			X	X	4	
LAI-MW2-20170711 (580-69828-4)	7/11/17	10:55 Pacific		Water			X	X	4	
LAI-MW1-20170711 (580-69828-5)	7/11/17	11:55 Pacific		Water			X	X	4	
LAI-MW3-20170711 (580-69828-6)	7/11/17	12:40 Pacific		Water			X	X	4	
MW13-20170711 (580-69828-7)	7/11/17	13:45 Pacific		Water			X	X	4	
MW13-20170711 (580-69828-7MS)	7/11/17	13:45 Pacific	MS	Water			X	X	4	
MW13-20170711 (580-69828-7MSD)	7/11/17	13:45 Pacific	MSD	Water			X	X	4	
MW2-20170711 (580-69828-8)	7/11/17	14:45 Pacific		Water			X	X	4	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	B Hall	7/12/17 1456	SEA TA	Reed H	7-13-17 0845	TAL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.6 IR#70.0 Transfer RP 7-13-17

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Cruz, Sheri L	Carrier Tracking No(s):	COC No: 580-48079.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheri.cruz@testamericainc.com	State of Origin: Washington	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State Program - Washington		Job #: 580-69828-1
Address: 4955 Yarrow Street,	Due Date Requested: 7/24/2017			
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: Sauro's Cleanerama	Project #: 58009425			
Site:	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 - 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)	RSK_175/ (MOD) Local Method	SM4500_S2_D/ Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
RNS-MW2-20170711 (580-69828-9)	7/11/17	15:25 Pacific		Water			X	X	4	
RNS-MW6-52.5-20170711 (580-69828-11)	7/11/17	16:20 Pacific		Water			X	X	4	
LAI-MW-5-20170711 (580-69828-12)	7/11/17	17:20 Pacific		Water			X	X	4	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: B. Gall	Date/Time: 7/12/17 1456	Company: SEA TA	Received by: Reed [signature]	Date/Time: 7-13-17 0845	Company: TAD
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:		

Login Sample Receipt Checklist

Client: Landau & Associates, Inc.

Job Number: 580-69828-1

Login Number: 69828
List Number: 1
Creator: Gall, Brandon A

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
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.	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").	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: Landau & Associates, Inc.

Job Number: 580-69828-1

Login Number: 69828
List Number: 2
Creator: True, Joshua A

List Source: TestAmerica Denver
List Creation: 07/14/17 08:10 AM

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.	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	

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

Client Sample ID: Trip Blank-20170711
Date Collected: 07/11/17 00:01
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 13:35	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			07/18/17 13:35	1
Trichloroethene	**1.0**	**B ***	0.20		ug/L			07/18/17 13:35	1
Tetrachloroethene	ND		0.20		ug/L			07/18/17 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*100*		*74 - 118*		*07/18/17 13:35*	*1*
Toluene-d8 (Surr)	*101*		*75 - 125*		*07/18/17 13:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*46 - 150*		*07/18/17 13:35*	*1*
4-Bromofluorobenzene (Surr)	*102*		*81 - 120*		*07/18/17 13:35*	*1*
Dibromofluoromethane (Surr)	*103*		*42 - 132*		*07/18/17 13:35*	*1*

Client Sample ID: LAI-MW4-20170711
Date Collected: 07/11/17 09:07
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 14:33	1
cis-1,2-Dichloroethene	**0.25**		0.20		ug/L			07/18/17 14:33	1
Trichloroethene	ND		0.20		ug/L			07/25/17 16:37	1
Tetrachloroethene	ND		0.20		ug/L			07/18/17 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*97*		*74 - 118*		*07/18/17 14:33*	*1*
Trifluorotoluene (Surr)	*100*		*74 - 118*		*07/25/17 16:37*	*1*
Toluene-d8 (Surr)	*100*		*75 - 125*		*07/18/17 14:33*	*1*
Toluene-d8 (Surr)	*102*		*75 - 125*		*07/25/17 16:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*46 - 150*		*07/18/17 14:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*46 - 150*		*07/25/17 16:37*	*1*
4-Bromofluorobenzene (Surr)	*104*		*81 - 120*		*07/18/17 14:33*	*1*
4-Bromofluorobenzene (Surr)	*102*		*81 - 120*		*07/25/17 16:37*	*1*
Dibromofluoromethane (Surr)	*102*		*42 - 132*		*07/18/17 14:33*	*1*
Dibromofluoromethane (Surr)	*101*		*42 - 132*		*07/25/17 16:37*	*1*

Client Sample ID: DUP1-20170711
Date Collected: 07/11/17 09:10
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 15:02	1
cis-1,2-Dichloroethene	**0.27**		0.20		ug/L			07/18/17 15:02	1
Trichloroethene	**0.92**	**B ***	0.20		ug/L			07/18/17 15:02	1
Tetrachloroethene	ND		0.20		ug/L			07/18/17 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*98*		*74 - 118*		*07/18/17 15:02*	*1*
Toluene-d8 (Surr)	*98*		*75 - 125*		*07/18/17 15:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*46 - 150*		*07/18/17 15:02*	*1*
4-Bromofluorobenzene (Surr)	*102*		*81 - 120*		*07/18/17 15:02*	*1*
Dibromofluoromethane (Surr)	*102*		*42 - 132*		*07/18/17 15:02*	*1*

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

Client Sample ID: LAI-MW2-20170711
Date Collected: 07/11/17 10:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.54**		0.20		ug/L			07/18/17 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*103*		*74 - 118*		*07/18/17 15:31*	*1*
Toluene-d8 (Surr)	*102*		*75 - 125*		*07/18/17 15:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*46 - 150*		*07/18/17 15:31*	*1*
4-Bromofluorobenzene (Surr)	*101*		*81 - 120*		*07/18/17 15:31*	*1*
Dibromofluoromethane (Surr)	*101*		*42 - 132*		*07/18/17 15:31*	*1*

Client Sample ID: LAI-MW1-20170711
Date Collected: 07/11/17 11:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 16:00	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			07/18/17 16:00	1
Trichloroethene	**0.90**	**B ***	0.20		ug/L			07/18/17 16:00	1
Tetrachloroethene	**0.30**		0.20		ug/L			07/18/17 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*96*		*74 - 118*		*07/18/17 16:00*	*1*
Toluene-d8 (Surr)	*99*		*75 - 125*		*07/18/17 16:00*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*46 - 150*		*07/18/17 16:00*	*1*
4-Bromofluorobenzene (Surr)	*104*		*81 - 120*		*07/18/17 16:00*	*1*
Dibromofluoromethane (Surr)	*100*		*42 - 132*		*07/18/17 16:00*	*1*

Client Sample ID: LAI-MW3-20170711
Date Collected: 07/11/17 12:40
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 16:29	1
cis-1,2-Dichloroethene	**35**		0.20		ug/L			07/18/17 16:29	1
Trichloroethene	**35**	**B ***	0.20		ug/L			07/18/17 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*102*		*74 - 118*		*07/18/17 16:29*	*1*
Toluene-d8 (Surr)	*101*		*75 - 125*		*07/18/17 16:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*46 - 150*		*07/18/17 16:29*	*1*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*		*07/18/17 16:29*	*1*
Dibromofluoromethane (Surr)	*100*		*42 - 132*		*07/18/17 16:29*	*1*

Client Sample ID: MW13-20170711
Date Collected: 07/11/17 13:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.27**		0.20		ug/L			07/18/17 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*102*		*74 - 118*		*07/18/17 19:23*	*1*
Toluene-d8 (Surr)	*101*		*75 - 125*		*07/18/17 19:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*46 - 150*		*07/18/17 19:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*81 - 120*		*07/18/17 19:23*	*1*

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

Client Sample ID: MW13-20170711
Date Collected: 07/11/17 13:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-7
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*42 - 132*		*07/18/17 19:23*	*1*

Client Sample ID: MW2-20170711
Date Collected: 07/11/17 14:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.23**		0.20		ug/L			07/18/17 16:58	1
Trichloroethene	**0.91**	**B ***	0.20		ug/L			07/18/17 16:58	1
Tetrachloroethene	**0.40**		0.20		ug/L			07/18/17 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*99*		*74 - 118*		*07/18/17 16:58*	*1*
Toluene-d8 (Surr)	*100*		*75 - 125*		*07/18/17 16:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*46 - 150*		*07/18/17 16:58*	*1*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*		*07/18/17 16:58*	*1*
Dibromofluoromethane (Surr)	*100*		*42 - 132*		*07/18/17 16:58*	*1*

Client Sample ID: RNS-MW2-20170711
Date Collected: 07/11/17 15:25
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 17:27	1
cis-1,2-Dichloroethene	**0.24**		0.20		ug/L			07/18/17 17:27	1
Trichloroethene	**1.3**	**B ***	0.20		ug/L			07/18/17 17:27	1
Tetrachloroethene	**14**		0.20		ug/L			07/18/17 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*99*		*74 - 118*		*07/18/17 17:27*	*1*
Toluene-d8 (Surr)	*100*		*75 - 125*		*07/18/17 17:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*46 - 150*		*07/18/17 17:27*	*1*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*		*07/18/17 17:27*	*1*
Dibromofluoromethane (Surr)	*104*		*42 - 132*		*07/18/17 17:27*	*1*

Client Sample ID: RNS-MW6-42.5-20170711
Date Collected: 07/11/17 15:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.33**		0.20		ug/L			07/18/17 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*99*		*74 - 118*		*07/18/17 17:56*	*1*
Toluene-d8 (Surr)	*101*		*75 - 125*		*07/18/17 17:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*46 - 150*		*07/18/17 17:56*	*1*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*		*07/18/17 17:56*	*1*
Dibromofluoromethane (Surr)	*102*		*42 - 132*		*07/18/17 17:56*	*1*

Client Sample ID: RNS-MW6-52.5-20170711
Date Collected: 07/11/17 16:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	**0.38**		0.20		ug/L			07/18/17 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	*99*		*74 - 118*		*07/18/17 18:25*	*1*
Toluene-d8 (Surr)	*103*		*75 - 125*		*07/18/17 18:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*46 - 150*		*07/18/17 18:25*	*1*
4-Bromofluorobenzene (Surr)	*104*		*81 - 120*		*07/18/17 18:25*	*1*
Dibromofluoromethane (Surr)	*102*		*42 - 132*		*07/18/17 18:25*	*1*

Client Sample ID: LAI-MW-5-20170711
Date Collected: 07/11/17 17:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 18:54	1
cis-1,2-Dichloroethene	**0.22**		0.20		ug/L			07/18/17 18:54	1
Trichloroethene	**0.88**	**B ***	0.20		ug/L			07/18/17 18:54	1
Tetrachloroethene	**0.63**		0.20		ug/L			07/18/17 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	*94*		*74 - 118*		*07/18/17 18:54*	*1*
Toluene-d8 (Surr)	*99*		*75 - 125*		*07/18/17 18:54*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*46 - 150*		*07/18/17 18:54*	*1*
4-Bromofluorobenzene (Surr)	*104*		*81 - 120*		*07/18/17 18:54*	*1*
Dibromofluoromethane (Surr)	*104*		*42 - 132*		*07/18/17 18:54*	*1*

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

Client Sample ID: Trip Blank-20170711 — **Lab Sample ID: 580-69828-1**
Date Collected: 07/11/17 00:01 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 15:47*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*07/25/17 15:47*	*1*
Dibromofluoromethane (Surr)	*98*		*77 - 120*		*07/25/17 15:47*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 15:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 126*		*07/25/17 15:47*	*1*

Client Sample ID: DUP1-20170711 — **Lab Sample ID: 580-69828-3**
Date Collected: 07/11/17 09:10 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 17:05*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*07/25/17 17:05*	*1*
Dibromofluoromethane (Surr)	*99*		*77 - 120*		*07/25/17 17:05*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 17:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 126*		*07/25/17 17:05*	*1*

Client Sample ID: LAI-MW2-20170711 — **Lab Sample ID: 580-69828-4**
Date Collected: 07/11/17 10:55 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**94**		10	2.1	ug/L			07/25/17 20:01	10
Trichloroethene	**95**		30	1.8	ug/L			07/25/17 20:01	10
Tetrachloroethene	**270**	**B**	30	3.3	ug/L			07/25/17 20:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 20:01*	*10*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*		*07/25/17 20:01*	*10*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*07/25/17 20:01*	*10*
Trifluorotoluene (Surr)	*99*		*80 - 120*		*07/25/17 20:01*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 20:01*	*10*

Client Sample ID: LAI-MW1-20170711 — **Lab Sample ID: 580-69828-5**
Date Collected: 07/11/17 11:55 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 17:31	1
Tetrachloroethene	**0.44**	**J B**	3.0	0.33	ug/L			07/25/17 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 17:31*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*07/25/17 17:31*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*07/25/17 17:31*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 120*		*07/25/17 17:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 126*		*07/25/17 17:31*	*1*

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

Client Sample ID: LAI-MW3-20170711 — **Lab Sample ID: 580-69828-6**
Date Collected: 07/11/17 12:40 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	26	J	30	1.8	ug/L			07/25/17 20:26	10
Tetrachloroethene	73	B	30	3.3	ug/L			07/25/17 20:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 122*		*07/25/17 20:26*	*10*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*07/25/17 20:26*	*10*
Dibromofluoromethane (Surr)	*99*		*77 - 120*		*07/25/17 20:26*	*10*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 20:26*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 20:26*	*10*

Client Sample ID: MW13-20170711 — **Lab Sample ID: 580-69828-7**
Date Collected: 07/11/17 13:45 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	47		10	2.1	ug/L			07/25/17 20:51	10
Trichloroethene	53		30	1.8	ug/L			07/25/17 20:51	10
Tetrachloroethene	190	B	30	3.3	ug/L			07/25/17 20:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 20:51*	*10*
4-Bromofluorobenzene (Surr)	*98*		*75 - 125*		*07/25/17 20:51*	*10*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*07/25/17 20:51*	*10*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 20:51*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 20:51*	*10*

Client Sample ID: MW2-20170711 — **Lab Sample ID: 580-69828-8**
Date Collected: 07/11/17 14:45 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	1.3		1.0	0.21	ug/L			07/25/17 17:56	1
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 17:56	1
Tetrachloroethene	0.49	J B	3.0	0.33	ug/L			07/25/17 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 17:56*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*07/25/17 17:56*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*07/25/17 17:56*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 120*		*07/25/17 17:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 17:56*	*1*

Client Sample ID: RNS-MW2-20170711 — **Lab Sample ID: 580-69828-9**
Date Collected: 07/11/17 15:25 — **Matrix: Water**
Date Received: 07/11/17 17:43

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 122*		*07/25/17 18:21*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*07/25/17 18:21*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*07/25/17 18:21*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 120*		*07/25/17 18:21*	*1*

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

Client Sample ID: RNS-MW2-20170711
Date Collected: 07/11/17 15:25
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-9
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 126*		*07/25/17 18:21*	*1*

Client Sample ID: RNS-MW6-42.5-20170711
Date Collected: 07/11/17 15:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**130**		10	2.1	ug/L			07/25/17 22:06	10
Trichloroethene	**180**		30	1.8	ug/L			07/25/17 22:06	10
Tetrachloroethene	**670**	**B**	30	3.3	ug/L			07/25/17 22:06	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 122*		*07/25/17 22:06*	*10*
4-Bromofluorobenzene (Surr)	*98*		*75 - 125*		*07/25/17 22:06*	*10*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*07/25/17 22:06*	*10*
Trifluorotoluene (Surr)	*99*		*80 - 120*		*07/25/17 22:06*	*10*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 22:06*	*10*

Client Sample ID: RNS-MW6-52.5-20170711
Date Collected: 07/11/17 16:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**99**		10	2.1	ug/L			07/25/17 22:31	10
Trichloroethene	**110**		30	1.8	ug/L			07/25/17 22:31	10
Tetrachloroethene	**400**	**B**	30	3.3	ug/L			07/25/17 22:31	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 122*		*07/25/17 22:31*	*10*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*		*07/25/17 22:31*	*10*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*07/25/17 22:31*	*10*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 22:31*	*10*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 126*		*07/25/17 22:31*	*10*

Client Sample ID: LAI-MW-5-20170711
Date Collected: 07/11/17 17:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			07/25/17 18:45	1
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 18:45	1
Tetrachloroethene	**0.42**	**J B**	3.0	0.33	ug/L			07/25/17 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 122*		*07/25/17 18:45*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*07/25/17 18:45*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*07/25/17 18:45*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 18:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 126*		*07/25/17 18:45*	*1*

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: LAI-MW4-20170711
Date Collected: 07/11/17 09:07
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**5.2**		0.0050		mg/L			07/18/17 00:42	1
Ethylene	ND		0.0050		mg/L			07/18/17 00:42	1
Ethane	ND		0.0050		mg/L			07/18/17 00:42	1
Acetylene	ND		0.0050		mg/L			07/18/17 00:42	1

Client Sample ID: DUP1-20170711
Date Collected: 07/11/17 09:10
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**4.9**		0.0050		mg/L			07/18/17 00:55	1
Ethylene	ND		0.0050		mg/L			07/18/17 00:55	1
Ethane	ND		0.0050		mg/L			07/18/17 00:55	1
Acetylene	ND		0.0050		mg/L			07/18/17 00:55	1

Client Sample ID: LAI-MW2-20170711
Date Collected: 07/11/17 10:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.012**		0.0050		mg/L			07/18/17 01:09	1
Ethylene	ND		0.0050		mg/L			07/18/17 01:09	1
Ethane	ND		0.0050		mg/L			07/18/17 01:09	1
Acetylene	ND		0.0050		mg/L			07/18/17 01:09	1

Client Sample ID: LAI-MW1-20170711
Date Collected: 07/11/17 11:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			07/18/17 01:37	1
Ethylene	ND		0.0050		mg/L			07/18/17 01:37	1
Ethane	ND		0.0050		mg/L			07/18/17 01:37	1
Acetylene	ND		0.0050		mg/L			07/18/17 01:37	1

Client Sample ID: LAI-MW3-20170711
Date Collected: 07/11/17 12:40
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			07/18/17 01:50	1
Ethylene	ND		0.0050		mg/L			07/18/17 01:50	1
Ethane	ND		0.0050		mg/L			07/18/17 01:50	1
Acetylene	ND		0.0050		mg/L			07/18/17 01:50	1

Client Sample ID: MW13-20170711
Date Collected: 07/11/17 13:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.0061**		0.0050		mg/L			07/17/17 23:47	1
Ethylene	ND		0.0050		mg/L			07/17/17 23:47	1
Ethane	ND		0.0050		mg/L			07/17/17 23:47	1
Acetylene	ND		0.0050		mg/L			07/17/17 23:47	1

Method: RSK-175 - Dissolved Gases (GC)

Client Sample ID: MW2-20170711
Date Collected: 07/11/17 14:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.47**		0.0050		mg/L			07/18/17 02:04	1
Ethylene	ND		0.0050		mg/L			07/18/17 02:04	1
Ethane	ND		0.0050		mg/L			07/18/17 02:04	1
Acetylene	ND		0.0050		mg/L			07/18/17 02:04	1

Client Sample ID: RNS-MW2-20170711
Date Collected: 07/11/17 15:25
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			07/18/17 02:18	1
Ethylene	ND		0.0050		mg/L			07/18/17 02:18	1
Ethane	ND		0.0050		mg/L			07/18/17 02:18	1
Acetylene	ND		0.0050		mg/L			07/18/17 02:18	1

Client Sample ID: RNS-MW6-52.5-20170711
Date Collected: 07/11/17 16:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**0.043**		0.0050		mg/L			07/18/17 02:31	1
Ethylene	ND		0.0050		mg/L			07/18/17 02:31	1
Ethane	**0.0083**		0.0050		mg/L			07/18/17 02:31	1
Acetylene	ND		0.0050		mg/L			07/18/17 02:31	1

Client Sample ID: LAI-MW-5-20170711
Date Collected: 07/11/17 17:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	**8.3**		0.0050		mg/L			07/18/17 02:45	1
Ethylene	ND		0.0050		mg/L			07/18/17 02:45	1
Ethane	ND		0.0050		mg/L			07/18/17 02:45	1
Acetylene	ND		0.0050		mg/L			07/18/17 02:45	1

General Chemistry

Client Sample ID: LAI-MW4-20170711
Date Collected: 07/11/17 09:07
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22**		0.90		mg/L			07/12/17 11:54	1
Nitrite as N	ND		0.40		mg/L			07/12/17 11:54	1
Nitrate as N	ND		0.20		mg/L			07/12/17 11:54	1
Sulfate	**1.8**		1.2		mg/L			07/12/17 11:54	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**3.7**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: DUP1-20170711
Date Collected: 07/11/17 09:10
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22**		0.90		mg/L			07/12/17 12:25	1
Nitrite as N	ND		0.40		mg/L			07/12/17 12:25	1
Nitrate as N	ND		0.20		mg/L			07/12/17 12:25	1
Sulfate	**1.7**		1.2		mg/L			07/12/17 12:25	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**4.3**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: LAI-MW2-20170711
Date Collected: 07/11/17 10:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		0.90		mg/L			07/12/17 12:41	1
Nitrite as N	ND		0.40		mg/L			07/12/17 12:41	1
Nitrate as N	ND		0.20		mg/L			07/12/17 12:41	1
Sulfate	**19**		1.2		mg/L			07/12/17 12:41	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**1.8**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: LAI-MW1-20170711
Date Collected: 07/11/17 11:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53**		0.90		mg/L			07/12/17 12:57	1
Nitrite as N	ND		0.40		mg/L			07/12/17 12:57	1
Nitrate as N	**1.2**		0.20		mg/L			07/12/17 12:57	1
Sulfate	**20**		1.2		mg/L			07/12/17 12:57	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**1.8**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: LAI-MW3-20170711
Date Collected: 07/11/17 12:40
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		0.90		mg/L			07/12/17 13:13	1
Nitrite as N	ND		0.40		mg/L			07/12/17 13:13	1
Nitrate as N	**0.53**		0.20		mg/L			07/12/17 13:13	1
Sulfate	**20**		1.2		mg/L			07/12/17 13:13	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**2.0**		1.0		mg/L			07/17/17 15:01	1

General Chemistry

Client Sample ID: MW13-20170711
Date Collected: 07/11/17 13:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13**		0.90		mg/L			07/12/17 13:29	1
Nitrite as N	ND		0.40		mg/L			07/12/17 13:29	1
Nitrate as N	**0.67**		0.20		mg/L			07/12/17 13:29	1
Sulfate	**30**		1.2		mg/L			07/12/17 13:29	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**2.0**		2.0		mg/L			07/17/17 15:01	2

Client Sample ID: MW2-20170711
Date Collected: 07/11/17 14:45
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		0.90		mg/L			07/12/17 14:16	1
Nitrite as N	ND		0.40		mg/L			07/12/17 14:16	1
Nitrate as N	**2.0**		0.20		mg/L			07/12/17 14:16	1
Sulfate	**14**		1.2		mg/L			07/12/17 14:16	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**3.3**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: RNS-MW2-20170711
Date Collected: 07/11/17 15:25
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41**		0.90		mg/L			07/12/17 15:04	1
Nitrite as N	ND		0.40		mg/L			07/12/17 15:04	1
Nitrate as N	**2.6**		0.20		mg/L			07/12/17 15:04	1
Sulfate	**26**		1.2		mg/L			07/12/17 15:04	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**1.8**		1.0		mg/L			07/17/17 15:01	1

Client Sample ID: RNS-MW6-52.5-20170711
Date Collected: 07/11/17 16:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26**		0.90		mg/L			07/12/17 15:20	1
Nitrite as N	ND		0.40		mg/L			07/12/17 15:20	1
Nitrate as N	**0.64**		0.20		mg/L			07/12/17 15:20	1
Sulfate	**28**		1.2		mg/L			07/12/17 15:20	1
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1
Total Organic Carbon	**2.7**		2.0		mg/L			07/17/17 15:01	2

Client Sample ID: LAI-MW-5-20170711
Date Collected: 07/11/17 17:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25**		0.90		mg/L			07/12/17 15:36	1
Nitrite as N	ND		0.40		mg/L			07/12/17 15:36	1
Nitrate as N	ND		0.20		mg/L			07/12/17 15:36	1
Sulfate	**1.4**		1.2		mg/L			07/12/17 15:36	1
Sulfide	ND		0.050		mg/L			07/17/17 17:13	1
Total Organic Carbon	**9.6**		4.0		mg/L			07/17/17 15:01	4

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

Lab Sample ID: MB 580-251427/6
Matrix: Water
Analysis Batch: 251427

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.20		ug/L			07/18/17 12:37	1
cis-1,2-Dichloroethene	ND		0.20		ug/L			07/18/17 12:37	1
Trichloroethene	0.857		0.20		ug/L			07/18/17 12:37	1
Tetrachloroethene	ND		0.20		ug/L			07/18/17 12:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*98*		*74 - 118*		*07/18/17 12:37*	*1*
Toluene-d8 (Surr)	*102*		*75 - 125*		*07/18/17 12:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*46 - 150*		*07/18/17 12:37*	*1*
4-Bromofluorobenzene (Surr)	*102*		*81 - 120*		*07/18/17 12:37*	*1*
Dibromofluoromethane (Surr)	*100*		*42 - 132*		*07/18/17 12:37*	*1*

Lab Sample ID: LCS 580-251427/3
Matrix: Water
Analysis Batch: 251427

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Vinyl chloride			5.00	5.70		ug/L		114	59 - 140		
cis-1,2-Dichloroethene			5.00	5.80		ug/L		116	73 - 130		
Trichloroethene			5.00	6.76	*	ug/L		135	72 - 123		
Tetrachloroethene			5.00	5.48		ug/L		110	67 - 123		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*95*		*74 - 118*
Toluene-d8 (Surr)	*98*		*75 - 125*
1,2-Dichloroethane-d4 (Surr)	*101*		*46 - 150*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*
Dibromofluoromethane (Surr)	*103*		*42 - 132*

Lab Sample ID: LCSD 580-251427/4
Matrix: Water
Analysis Batch: 251427

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
Vinyl chloride			5.00	5.18		ug/L		104	59 - 140	10	30
cis-1,2-Dichloroethene			5.00	5.51		ug/L		110	73 - 130	5	20
Trichloroethene			5.00	6.56	*	ug/L		131	72 - 123	3	20
Tetrachloroethene			5.00	5.36		ug/L		107	67 - 123	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*98*		*74 - 118*
Toluene-d8 (Surr)	*97*		*75 - 125*
1,2-Dichloroethane-d4 (Surr)	*102*		*46 - 150*
4-Bromofluorobenzene (Surr)	*101*		*81 - 120*
Dibromofluoromethane (Surr)	*102*		*42 - 132*

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

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 251427

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.27		5.00	6.12		ug/L		117	59 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*99*		*74 - 118*
Toluene-d8 (Surr)	*98*		*75 - 125*
1,2-Dichloroethane-d4 (Surr)	*100*		*46 - 150*
4-Bromofluorobenzene (Surr)	*101*		*81 - 120*
Dibromofluoromethane (Surr)	*101*		*42 - 132*

Lab Sample ID: 580-69828-7 MSD
Matrix: Water
Analysis Batch: 251427

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	0.27		5.00	6.11		ug/L		117	59 - 140	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*99*		*74 - 118*
Toluene-d8 (Surr)	*99*		*75 - 125*
1,2-Dichloroethane-d4 (Surr)	*100*		*46 - 150*
4-Bromofluorobenzene (Surr)	*103*		*81 - 120*
Dibromofluoromethane (Surr)	*102*		*42 - 132*

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

Lab Sample ID: MB 580-252121/5
Matrix: Water
Analysis Batch: 252121

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0	0.21	ug/L			07/25/17 14:27	1
Trichloroethene	ND		3.0	0.18	ug/L			07/25/17 14:27	1
Tetrachloroethene	0.412	J	3.0	0.33	ug/L			07/25/17 14:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*80 - 122*		*07/25/17 14:27*	*1*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*07/25/17 14:27*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*07/25/17 14:27*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*		*07/25/17 14:27*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 126*		*07/25/17 14:27*	*1*

Lab Sample ID: LCS 580-252121/6
Matrix: Water
Analysis Batch: 252121

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	10.0	10.7		ug/L		107	20 - 150

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

Lab Sample ID: LCS 580-252121/6
Matrix: Water
Analysis Batch: 252121

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene			10.0	10.4		ug/L		104	76 - 120		
Trichloroethene			10.0	9.96		ug/L		100	70 - 125		
Tetrachloroethene			10.0	10.1		ug/L		101	76 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 122*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*
Dibromofluoromethane (Surr)	*101*		*77 - 120*
Trifluorotoluene (Surr)	*102*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 126*

Lab Sample ID: LCSD 580-252121/7
Matrix: Water
Analysis Batch: 252121

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
Vinyl chloride			10.0	10.6		ug/L		106	20 - 150	1	35
cis-1,2-Dichloroethene			10.0	10.2		ug/L		102	76 - 120	2	15
Trichloroethene			10.0	9.85		ug/L		99	70 - 125	1	15
Tetrachloroethene			10.0	10.0		ug/L		100	76 - 124	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*80 - 122*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*
Dibromofluoromethane (Surr)	*100*		*77 - 120*
Trifluorotoluene (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 126*

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 252121

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
cis-1,2-Dichloroethene	47		100	145		ug/L		98	70 - 111		
Trichloroethene	53		100	151		ug/L		98	70 - 125		
Tetrachloroethene	190	B	100	292		ug/L		105	70 - 124		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*80 - 122*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*
Dibromofluoromethane (Surr)	*101*		*77 - 120*
Trifluorotoluene (Surr)	*98*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 126*

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

Lab Sample ID: 580-69828-7 MSD
Matrix: Water
Analysis Batch: 252121

Client Sample ID: MW13-20170711
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	47		100	149		ug/L		102	70 - 111	3	35
Trichloroethene	53		100	152		ug/L		99	70 - 125	1	35
Tetrachloroethene	190	B	100	287		ug/L		99	70 - 124	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 122*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*
Dibromofluoromethane (Surr)	*100*		*77 - 120*
Trifluorotoluene (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 126*

Method: RSK-175 - Dissolved Gases (GC)

Lab Sample ID: MB 280-381050/5
Matrix: Water
Analysis Batch: 381050

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methane	ND		0.0050		mg/L			07/17/17 19:02	1
Ethylene	ND		0.0050		mg/L			07/17/17 19:02	1
Ethane	ND		0.0050		mg/L			07/17/17 19:02	1
Acetylene	ND		0.0050		mg/L			07/17/17 19:02	1

Lab Sample ID: LCS 280-381050/16
Matrix: Water
Analysis Batch: 381050

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.146	0.148		mg/L		101	75 - 125
Ethylene	0.255	0.255		mg/L		100	75 - 125
Ethane	0.274	0.281		mg/L		103	75 - 125
Acetylene	0.237	0.237		mg/L		100	75 - 125

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 381050

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methane	0.0061		0.146	0.175		mg/L		116	52 - 145
Ethylene	ND		0.255	0.279		mg/L		109	75 - 131
Ethane	ND		0.274	0.315		mg/L		115	75 - 125
Acetylene	ND		0.237	0.245		mg/L		104	52 - 142

Method: RSK-175 - Dissolved Gases (GC) (Continued)

Lab Sample ID: 580-69828-7 MSD
Matrix: Water
Analysis Batch: 381050

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methane	0.0061		0.146	0.169		mg/L		112	52 - 145	3	20
Ethylene	ND		0.255	0.274		mg/L		107	75 - 131	2	20
Ethane	ND		0.274	0.310		mg/L		113	75 - 125	2	20
Acetylene	ND		0.237	0.239		mg/L		101	52 - 142	3	20

Lab Sample ID: 580-69828-7 DU
Matrix: Water
Analysis Batch: 381050

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Methane	0.0061		0.00526		mg/L				15	20
Ethylene	ND		ND		mg/L				NC	20
Ethane	ND		ND		mg/L				14	20
Acetylene	ND		ND		mg/L				NC	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-251056/3
Matrix: Water
Analysis Batch: 251056

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.40		mg/L			07/12/17 10:02	1
Nitrate as N	ND		0.20		mg/L			07/12/17 10:02	1

Lab Sample ID: LCS 580-251056/4
Matrix: Water
Analysis Batch: 251056

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			5.00	4.59		mg/L		92	90 - 110		
Nitrate as N			5.00	4.90		mg/L		98	90 - 110		

Lab Sample ID: LCSD 580-251056/5
Matrix: Water
Analysis Batch: 251056

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
Nitrite as N			5.00	4.69		mg/L		94	90 - 110	2	15
Nitrate as N			5.00	4.91		mg/L		98	90 - 110	0	15

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 251056

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	ND		5.00	4.72		mg/L		94	90 - 110		
Nitrate as N	0.67		5.00	5.71		mg/L		101	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 580-69828-7 MSD — **Client Sample ID: MW13-20170711**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	ND		5.00	4.88		mg/L		98	90 - 110	3	15
Nitrate as N	0.67		5.00	5.73		mg/L		101	90 - 110	0	15

Lab Sample ID: MB 580-251057/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251057

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.90		mg/L			07/12/17 10:02	1
Sulfate	ND		1.2		mg/L			07/12/17 10:02	1

Lab Sample ID: LCS 580-251057/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.0		mg/L		100	90 - 110
Sulfate	50.0	50.7		mg/L		101	90 - 110

Lab Sample ID: LCSD 580-251057/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251057

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	50.0	50.0		mg/L		100	90 - 110	0	15
Sulfate	50.0	50.7		mg/L		101	90 - 110	0	15

Lab Sample ID: 580-69828-7 MS — **Client Sample ID: MW13-20170711**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13		50.0	64.4		mg/L		103	90 - 110
Sulfate	30		50.0	82.3		mg/L		104	90 - 110

Lab Sample ID: 580-69828-7 MSD — **Client Sample ID: MW13-20170711**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 251057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	13		50.0	64.6		mg/L		104	90 - 110	0	15
Sulfate	30		50.0	82.4		mg/L		104	90 - 110	0	15

Method: SM 4500 S2 D - Sulfide, Total

Lab Sample ID: MB 280-381064/31
Matrix: Water
Analysis Batch: 381064

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		0.050		mg/L			07/17/17 17:11	1

Lab Sample ID: LCS 280-381064/32
Matrix: Water
Analysis Batch: 381064

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			0.562	0.587		mg/L		104	85 - 115		

Lab Sample ID: LCSD 280-381064/33
Matrix: Water
Analysis Batch: 381064

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
Sulfide			0.562	0.571		mg/L		102	85 - 115	3	10

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 381064

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	ND		0.562	0.619		mg/L		110	80 - 119		

Lab Sample ID: 580-69828-7 MSD
Matrix: Water
Analysis Batch: 381064

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	ND		0.562	0.613		mg/L		109	80 - 119	1	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-251420/22
Matrix: Water
Analysis Batch: 251420

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			07/17/17 15:01	1

Lab Sample ID: MB 580-251420/3
Matrix: Water
Analysis Batch: 251420

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L			07/17/17 15:01	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 580-251420/23
Matrix: Water
Analysis Batch: 251420

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.13		mg/L		91	85 - 115

Lab Sample ID: LCS 580-251420/4
Matrix: Water
Analysis Batch: 251420

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.19		mg/L		92	85 - 115

Lab Sample ID: 580-69828-7 MS
Matrix: Water
Analysis Batch: 251420

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	2.0		20.0	21.1		mg/L		95	85 - 115

Lab Sample ID: 580-69828-7 MSD
Matrix: Water
Analysis Batch: 251420

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	2.0		20.0	21.0		mg/L		95	85 - 115	0	20

Lab Sample ID: 580-69828-7 DU
Matrix: Water
Analysis Batch: 251420

Client Sample ID: MW13-20170711
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	2.0		2.05		mg/L		0.3	20

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Client Sample ID: Trip Blank-20170711
Date Collected: 07/11/17 00:01
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 15:47	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 13:35	IWH	TAL SEA

Client Sample ID: LAI-MW4-20170711
Date Collected: 07/11/17 09:07
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 16:37	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 14:33	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 00:42	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 11:54	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 11:54	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: DUP1-20170711
Date Collected: 07/11/17 09:10
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 17:05	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 15:02	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 00:55	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 12:25	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 12:25	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: LAI-MW2-20170711
Date Collected: 07/11/17 10:55
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	252121	07/25/17 20:01	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 15:31	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 01:09	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 12:41	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 12:41	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Client Sample ID: LAI-MW2-20170711

Lab Sample ID: 580-69828-4

Date Collected: 07/11/17 10:55

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: LAI-MW1-20170711

Lab Sample ID: 580-69828-5

Date Collected: 07/11/17 11:55

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 17:31	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 16:00	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 01:37	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 12:57	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 12:57	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: LAI-MW3-20170711

Lab Sample ID: 580-69828-6

Date Collected: 07/11/17 12:40

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	252121	07/25/17 20:26	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 16:29	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 01:50	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 13:13	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 13:13	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: MW13-20170711

Lab Sample ID: 580-69828-7

Date Collected: 07/11/17 13:45

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	252121	07/25/17 20:51	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 19:23	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/17/17 23:47	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 13:29	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 13:29	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		2	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: MW2-20170711

Lab Sample ID: 580-69828-8

Date Collected: 07/11/17 14:45

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 17:56	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 16:58	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 02:04	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 14:16	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 14:16	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: RNS-MW2-20170711

Lab Sample ID: 580-69828-9

Date Collected: 07/11/17 15:25

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 18:21	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 17:27	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 02:18	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 15:04	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 15:04	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		1	251420	07/17/17 15:01	J1Y	TAL SEA

Client Sample ID: RNS-MW6-42.5-20170711

Lab Sample ID: 580-69828-10

Date Collected: 07/11/17 15:55

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	252121	07/25/17 22:06	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 17:56	IWH	TAL SEA

Client Sample ID: RNS-MW6-52.5-20170711

Lab Sample ID: 580-69828-11

Date Collected: 07/11/17 16:20

Matrix: Water

Date Received: 07/11/17 17:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	252121	07/25/17 22:31	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 18:25	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 02:31	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 15:20	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 15:20	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:11	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		2	251420	07/17/17 15:01	J1Y	TAL SEA

Lab Chronicle

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Client Sample ID: LAI-MW-5-20170711
Date Collected: 07/11/17 17:20
Date Received: 07/11/17 17:43

Lab Sample ID: 580-69828-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	252121	07/25/17 18:45	T1W	TAL SEA
Total/NA	Analysis	8260C		1	251427	07/18/17 18:54	IWH	TAL SEA
Total/NA	Analysis	RSK-175		1	381050	07/18/17 02:45	MPS	TAL DEN
Total/NA	Analysis	300.0		1	251056	07/12/17 15:36	MMM	TAL SEA
Total/NA	Analysis	300.0		1	251057	07/12/17 15:36	MMM	TAL SEA
Total/NA	Analysis	SM 4500 S2 D		1	381064	07/17/17 17:13	ALS	TAL DEN
Total/NA	Analysis	SM 5310B		4	251420	07/17/17 15:01	J1Y	TAL SEA

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Landau & Associates, Inc.
Project/Site: Sauro's Cleanerama

TestAmerica Job ID: 580-69828-1

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Washington	State Program	10	C553	02-17-18

Analysis Method	Prep Method	Matrix	Analyte

Laboratory: TestAmerica Denver

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

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	DoD ELAP		2907.01	10-31-17
A2LA	ISO/IEC 17025		2907.01	10-31-17
Alabama	State Program	4	40730	09-30-12 *
Alaska (UST)	State Program	10	UST-30	04-05-18
Arizona	State Program	9	AZ0713	12-20-17
Arkansas DEQ	State Program	6	88-0687	06-01-18
California	State Program	9	2513	01-08-18
Connecticut	State Program	1	PH-0686	09-30-18
Florida	NELAP	4	E87667	06-30-18
Georgia	State Program	4	N/A	01-08-18
Illinois	NELAP	5	200017	04-30-18
Iowa	State Program	7	370	12-01-18
Kansas	NELAP	7	E-10166	04-30-18
Louisiana	NELAP	6	02096	06-30-18
Maine	State Program	1	CO0002	03-03-19
Minnesota	NELAP	5	8-999-405	12-31-17
Nevada	State Program	9	CO0026	07-31-17 *
New Hampshire	NELAP	1	205310	04-28-18
New Jersey	NELAP	2	CO004	06-30-18
New York	NELAP	2	11964	04-01-18
North Carolina (WW/SW)	State Program	4	358	12-31-17
North Dakota	State Program	8	R-034	01-09-18
Oklahoma	State Program	6	8614	08-31-17
Oregon	NELAP	10	4025	01-08-18
Pennsylvania	NELAP	3	68-00664	07-31-18
South Carolina	State Program	4	72002001	01-08-18
Texas	NELAP	6	T104704183-16-12	09-30-17
USDA	Federal		P330-16-00397	12-15-19
Utah	NELAP	8	CO00026	07-31-17 *
Virginia	NELAP	3	460232	06-14-18
Washington	State Program	10	C583	08-03-18
West Virginia DEP	State Program	3	354	11-30-17
Wisconsin	State Program	5	999615430	08-31-17
Wyoming (UST)	A2LA	8	2907.01	10-31-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.