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October 28, 2014

Ms. Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

**Subject: Results of May 2014 Groundwater Monitoring, 3093 Broadway, Oakland, California
Site Cleanup Program Case No. RO0000199**

Dear Ms. Detterman,

Please find attached, for your review and comment, the *Results of May 2014 Groundwater Monitoring* at the Former Connell Oldsmobile site, located at 3093 Broadway in Oakland, California. The analysis and documentation have been prepared by Langan Treadwell Rollo.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

OWNER:

**GEORGE HILL AND KAY HILL, TRUSTEES OF THE HILL FAMILY TRUST UNDER TRUST
INSTRUMENT DATED APRIL 28, 1993**

By: 
Name: George Hill

By: 
Name: Kay Hill

HAWTHORNE-BROADWAY, LLC
A California limited liability company

By: 
Name: Gordon Linden
Title: Managing Member

30 October 2014

Ms. Karel Detterman, P.G.
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-8577

**Subject: Results of May 2014 Groundwater Monitoring- Revised Transmittal
Case # RO0000199
Former Connell Oldsmobile Site
3093 Broadway, Oakland
Langan Project: 731637001**

Dear Ms. Detterman,

On behalf of 3093 Broadway Holdings, L.L.C. (Broadway Holdings), this letter transmits the results of the May 2014 groundwater sampling event performed at the Former Connell Oldsmobile property located at 3093 Broadway, Oakland (the Site; Figure 1) by Langan Treadwell Rollo (Langan). Broadway Holdings is in the process of developing a mixed-use project at the Site, and has contracted with the property owners to conduct environmental work on their behalf.

As discussed at our 22 April 2014 meeting at your office, Broadway Holdings is conducting due diligence activities regarding a potential acquisition of the Site. At that meeting, you suggested that an additional groundwater sampling event be conducted to evaluate current site conditions and provide information on potential rebound of dissolved phase hydrocarbon concentrations after the shut-down of the remediation system in 2013. Langan conducted the groundwater sampling on 20 through 22 May 2014. These results were previously submitted to the Alameda County Department of Environmental Health (ACEH) and a follow-up meeting with you was conducted on 2 July 2014 to discuss the findings of this sampling and our initial thoughts on bringing the Site to closure. This revised transmittal of results was prepared as requested by the ACEH in its 28 October 2014 e-mail to Langan.

Sampling Program

A total of 20 wells, including 16 groundwater monitoring wells (MW-series), three groundwater recovery wells (RW-series) and one air sparge well (AS-series) were sampled on 20 through 22 May 2014 (Figure 1). As you requested, Langan sampled wells in areas where the remediation system was operated and wells near the downgradient perimeter of the Site along Broadway that had not been sampled in recent years.

Prior to sampling, depths to water were measured. No free product was encountered in any of the wells sampled. Consistent with the well sampling procedures used during the 2013 groundwater monitoring event, conventional well evacuation and sampling protocols were

followed. The sampling procedures are described in Attachment 1 of this letter. Depths to groundwater are presented in Table 1 and chemical analyses are summarized in Table 2, which also includes the results of the most recent groundwater sampling at each well. Prior sampling was performed in 2013, 2012, 2010, 2007, and 1998, depending on the individual well.

Groundwater samples were analyzed using method SW8260B and the analytical laboratory report is included in Attachment 2. Laboratory Quality Control sample results and trip blank results are also included in Attachment 2.

Discussion

Using the benzene concentrations from the preceding monitoring event as an indicator, groundwater concentrations increased in 6 wells, decreased in 8 wells, and remained non-detect at 6 wells. Increases were observed in the wells located near the former UST source area, under the service bay building. Based on our discussion, we understand that this area has been referred to as the Upper Plume. Concentrations south of the showroom building (referred to as the Lower Plume) generally decreased, although benzene remained elevated in two wells. Hydraulically downgradient along Broadway, no benzene was detected. Benzene concentrations detected in the wells in May 2014 are presented on Figure 2.

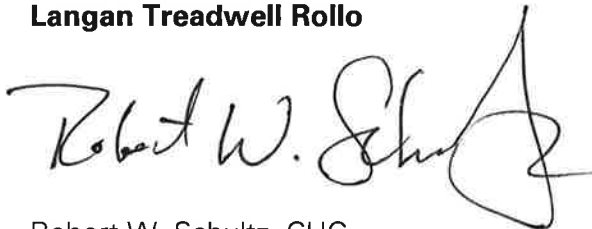
Our initial assessment of the data suggested (1) the lateral distribution of the contaminant plume is stable, and (2) contaminant concentrations are generally decreasing downgradient of the former USTs although they are still elevated in the former source area. Contaminant concentrations in groundwater collected from wells near the source area and under the building rebounded after shutdown of the treatment system, but not in every well. Benzene at MW-1 increased from 2,300 ug/L in June 2013 to 4,300 ug/L in May 2014, and at MW-16B from 1,600 ug/L to 11,000 ug/L. In well MW-16A, benzene dropped from 100 ug/L to 5.3 ug/L.

This report was prepared by the staff of Langan under the supervision of the Geologist whose seal and signature appear hereon. The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, after being prepared in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

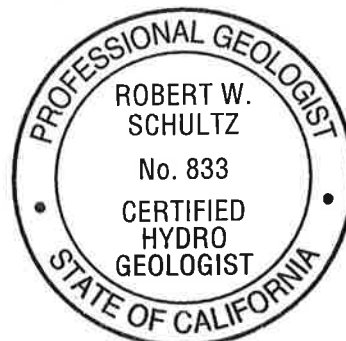
If you have any questions, please do not hesitate to call us at 415-955-5200.

Sincerely yours,

Langan Treadwell Rollo



Robert W. Schultz, CHG
Senior Project Manager

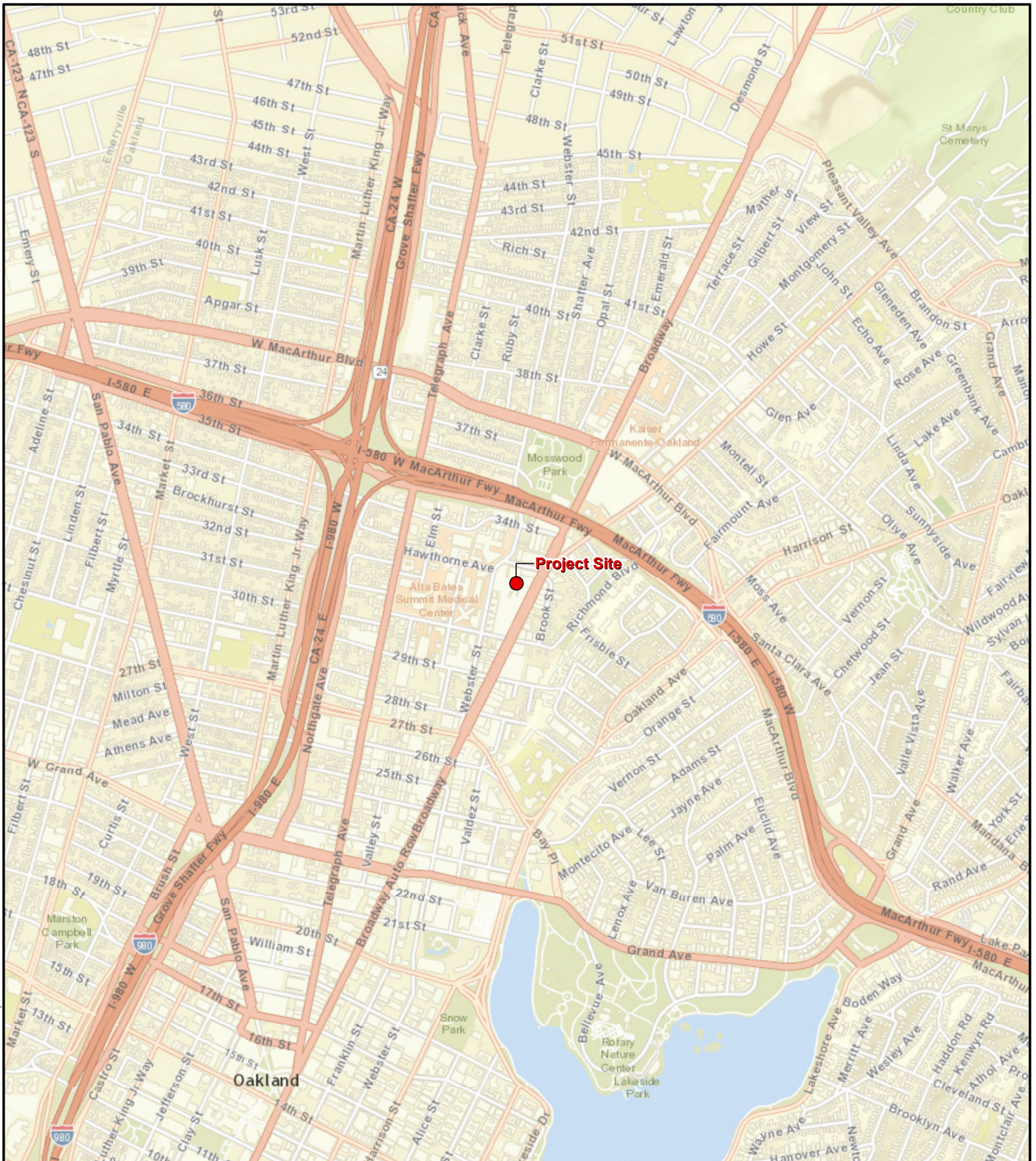


Attachments: Figures 1, 2
Tables 1, 2
Attachment 1: Monitoring Well Sampling Protocol
Attachment 2: Laboratory Analytical Report
Attachment 3: Well Data Sheets

cc: Mr. Joseph Ernst

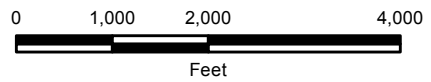
731637001

FIGURES



Notes:

1. World street basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN.
2. Map displayed in California State Plane Coordinate System, Zone III, North American Datum of 1983 (NAD83), US Survey Feet.



3093 BROADWAY
Oakland, California

SITE LOCATION MAP

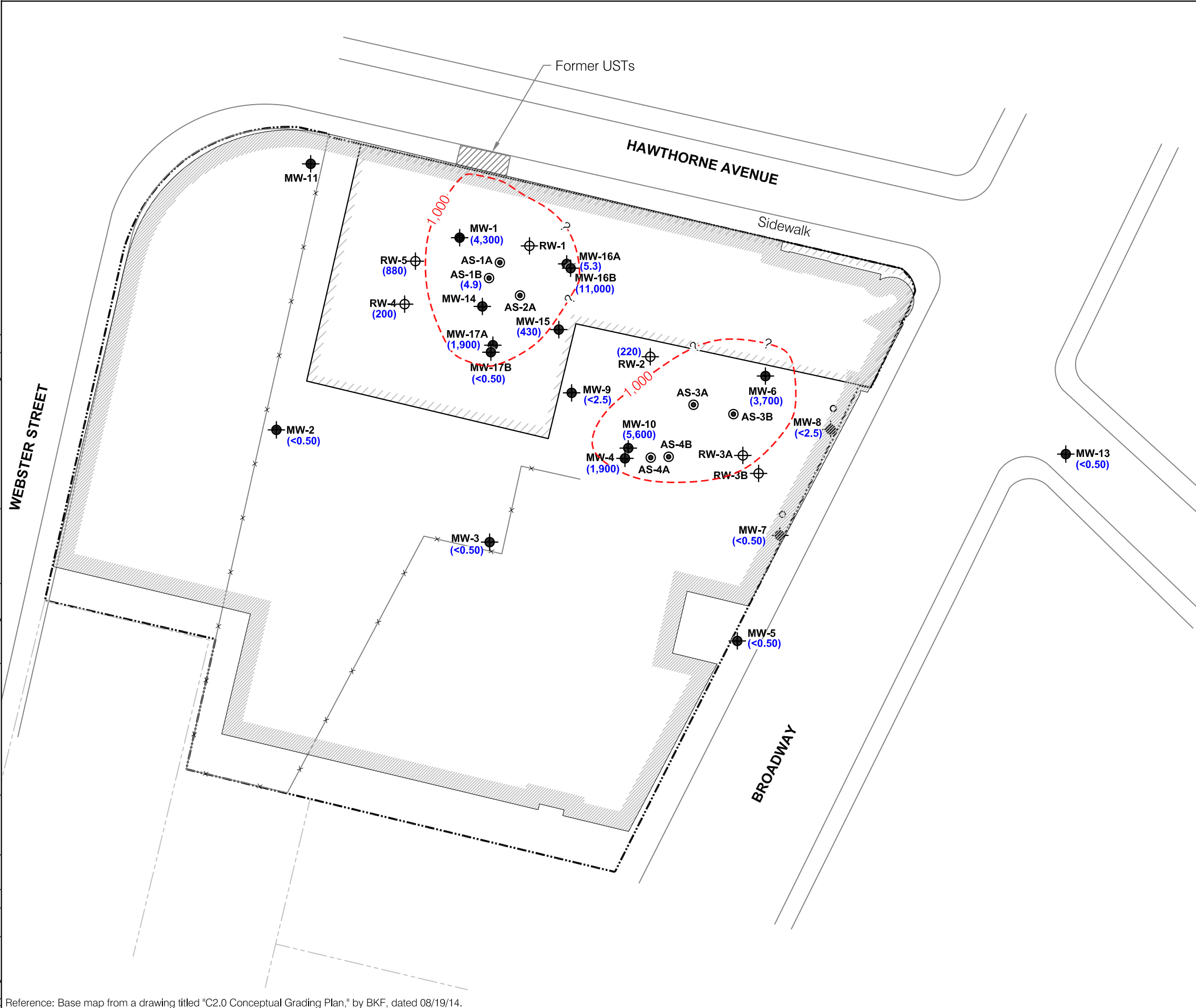
LANGAN TREADWELL ROLLO

Date 10/30/2014

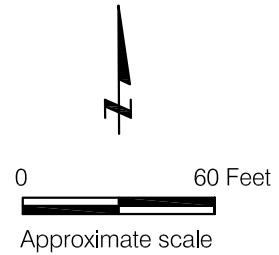
Project 731637001

Figure 1

\\langan.com\data\SF\data\731637001\Cadd Data - 731637001\2D-DesignFiles\Environmental\731637001-N-SP0113.dwg 10/31/14



- EXPLANATION**
- MW-1 ● Monitoring well location
 - RW-1 ⊕ Remediation monitoring well location
 - AS-1A ⊙ Air sparge well location
 - · - · - Site boundary
 - × × × Fence
 - ▨ Building footprint
 - (1,000) Benzene concentration in groundwater (µg/L); <0.50 = benzene was not detected at or above the specified laboratory reporting limit
 - - - 1,000 Benzene Isoconcentration in water, queried where uncertain



3093 BROADWAY Oakland, California		
BENZENE IN GROUNDWATER MAY 2014		
Date 10/30/14	Project No. 731637001	Figure 2
LANGAN TREADWELL ROLLO		

Reference: Base map from a drawing titled "C2.0 Conceptual Grading Plan," by BKF, dated 08/19/14.

TABLES

Table 1
Groundwater Levels
3093 Broadway Street
Oakland, California

Sample ID	Depth to Water	Depth to Well Bottom
	(feet)	
MW-1	22.13	31.88
MW-2	26.92	39.40
MW-3	19.51	33.33
MW-4	18.15	24.24
MW-5	25.73	33.54
MW-6	22.93	34.01
MW-7	16.99	31.00
MW-8	26.14	39.29
MW-9	19.37	30.55
MW-10	17.45	33.91
MW-13	23.14	38.72
MW-15	22.16	39.06
MW-16A	23.64	29.86
MW-16B	26.13	39.49
MW-17A	22.16	28.51
MW-17B	22.55	39.30
RW-2	15.92	29.47
RW-4	20.32	28.13
RW-5	21.33	32.64
AS-1B	22.78	36.95

Notes:

MW - Monitoring well

RW - Remediation well

AS - Air sparging well

Measurements were taken on 20 May 2014, and are relative to the top of casing (TOC) of the well.

Table 2
Groundwater Analytical Results for VOCS
3093 Broadway Street
Oakland, California

Sample ID	Date Sample	Benzene	Ethyl-benzene	MTBE	Toluene	Xylenes	Other VOCs
		µg/L					
MW-1	06/21/13	2,300	340	< 120	3,500	8,100	--
MW-1	05/21/14	4,300	660	< 250	6,400	10,000	ND
MW-2	04/29/98	< 0.5	< 0.5	< 2.0	< 0.5	< 0.5	ND
MW-2	05/22/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-3	04/29/98	< 0.5	< 0.5	< 2.0	< 0.5	< 0.5	ND
MW-3	05/22/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-4	06/21/13	4,400	1,700	< 1,200	15,000	13,000	--
MW-4	05/20/14	1,900	1,400	< 250	7,300	9,400	ND
MW-5	04/29/98	< 0.5	< 0.5	< 2.0	0.5	< 0.5	ND
MW-5	05/22/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-6	06/21/13	2,400	370	< 250	300	680	--
MW-6	05/20/14	3,700	830	< 50	530	840	ND
MW-7	08/24/10	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	--
MW-7	05/20/14	< 0.50	< 0.50	< 0.50	< 0.50	0.64	ND
MW-8	08/24/10	11	< 0.5	< 5.0	0.95	< 0.5	--
MW-8	05/21/14	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	ND
MW-9	08/24/10	21	< 0.5	< 5.0	1.5	< 0.5	--
MW-9	05/20/14	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	ND
MW-10	05/01/98	7,100	1,100	< 250	14,000	5,300	ND
MW-10	05/20/14	5,600	1,700	< 500	18,000	9,900	ND
MW-13	08/24/10	< 0.5	< 0.5	< 5.0	< 0.5	< 0.5	--
MW-13	05/22/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
MW-15	06/21/13	390	120	< 50	710	2,200	--
MW-15	05/21/14	430	220	< 17	19	250	ND
MW-16A	02/18/12	100	370	< 500	270	5,900	ND
MW-16A	05/21/14	5.3	7.4	< 2.5	3.7	31	ND
MW-16B	06/21/13	1,600	56	< 50	350	170	--
MW-16B	05/21/14	11,000	1,000	< 250	710	2,000	ND
MW-17A	06/21/13	1,300	73	< 250	1,500	3,400	--
MW-17A	05/21/14	1,900	970	< 50	3,500	10,000	ND
MW-17B	08/24/10	< 0.5	< 0.5	< 5.0	1.5	< 0.5	--
MW-17B	05/21/14	< 0.50	< 0.50	< 0.50	< 0.50	1.1	ND
RW-2	06/21/13	180	65	< 50	350	530	--
RW-2	05/20/14	220	140	< 10	330	780	ND
RW-4	08/28/12	370	280	< 450	1,700	1,400	--
RW-4	05/21/14	200	310	< 17	670	1,700	ND
RW-5	08/28/12	940	140	< 300	2,100	1,900	--
RW-5	05/21/14	880	520	< 50	440	2,200	ND
AS-1B	04/11/07	28,000	3,500	< 2,400	27,000	15,000	--
AS-1B	05/22/14	4.9	< 2.5	< 2.5	4.0	6.5	ND
TB-1	05/20/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
TB-2	05/21/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND
TB-3	05/22/14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	ND

Notes:

µg/L - Micrograms per liter

MTBE - Methyl-t-butyl ether

VOCs - Volatile Organics, EPA Method SW8260B

< 50 - Analyte was not detected above the specified laboratory

ND - Not detected at or above the laboratory reporting limit

-- - Not analyzed

MW - Monitoring well

RW - Remediation well

AS - Air sparging well

TB - Trip blank

Prior monitoring event data are from Pangea, 2013, Groundwater Monitoring and Remediation Report - First Half 2013, 6 August.

ATTACHMENT 1

MONITORING WELL SAMPLING PROTOCOL

STANDARD OPERATING PROCEDURE FOR GROUNDWATER MONITORING WELL SAMPLING

PURPOSE

The purpose of this standard operating procedure is to delineate protocols for the collection of groundwater samples from monitoring wells using normal and slow purging technique.

FIELD SUPPLIES

- Specific Conductivity meter - or YSI 3800
- Thermometer (optional) - or YSI 3800
- pH meter or YSI 3800
- Turbidity meter
- Flow-through-cell, if dissolved oxygen (DO) and oxidation reduction potential (ORP) measurements are needed.
- Water-level indicator
- Peristaltic, bladder, or submersible positive-displacement pump with adjustable discharge rate
- Sample bottles, labels, sample cooler, ice, chain-of-custody forms
- Logbook or Field Investigation Daily Forms and Groundwater Sampling Forms
- Teflon or teflon-lined polyethylene tubing and T fittings, hose clamps
- Photoionization Detector (PID) Organic Vapor Analyzer
- oil/water interface probe
- PPE
- Graduated cylinders
- Generator
- Laboratory contact name and number
- List of wells and sampling order.
- Decontamination equipment (buckets, non-phosphate detergent, and distilled water)
- Calibration fluids

PROCEDURE

- Upon arrival at the well site, visually inspect integrity of wells including condition of well casing, well vaults, grout pad and grout seal, and record the findings in the well inspection forms. Set up and organize the purging and sampling equipment.
- Don appropriate PPE. Open well. Measure the depth to Light Non-Aqueous Phase Liquid (LNAPL), if any, and to water (to 0.01 ft) using an interface probe. Record any obstructions encountered on the Groundwater Sampling Form.

Groundwater/Product Level Measurement Data

Well gauging data is reduced in order to convert the water level in each well to an elevation that is relative to a common datum (either assumed or actual). This makes it possible to prepare a map of groundwater gradient across the site. A second function of well gauging data reduction is to remove the effect of floating separate-phase product on the depth to water in a well (separate-phase product will depress the water table beneath it).

- The following information is required in order to reduce the gauging data collected in the field:
 - TOC elevation - note the survey point from which the gauging is measured,
 - depth to water (DTW),
 - depth to product (DTP), if product was detected, and
 - specific gravity (G) of the product (either determined in the field or by laboratory; if not, use an accepted average for the type of product encountered).
- To determine the product thickness (PT), subtract DTP from DTW.

For example:

$$\text{DTW} = 2.63 \text{ ft.}$$

$$\text{DTP} = 2.44 \text{ ft.}$$

$$\text{PT} = \text{DTW} - \text{DTP} = 2.63 - 2.44 = 0.19 \text{ ft.}$$

- To determine the hydraulic equivalent (HE) of the product, multiply the product thickness by the product's specific gravity (G).

For example:

$$PT = 0.19 \text{ ft.}$$

$$G = 0.75$$

$$HE = PT \times G = 0.19 \times 0.75 = 0.14 \text{ ft.}$$

- To determine the correct depth to water (CDTW), subtract the hydraulic equivalent from the measured depth to water.

For example (see MW-4, Fig. 15-2):

$$DTW = 2.63 \text{ ft.}$$

$$HE = 0.14 \text{ ft.}$$

$$CDTW = DTW - HE = 2.63 - 0.14 = 2.49 \text{ ft.}$$

- To determine the correct water elevation (CWE), subtract the corrected depth to water from the top of casing (TOC) elevation.

For example:

$$TOC = 174.89 \text{ ft.}$$

$$CDTW = 2.49 \text{ ft.}$$

$$CWE = TOC - CDTW = 174.89 - 2.49 = 172.40 \text{ ft.}$$

Note: in wells that do not contain product, there is no corrected depth to water. Therefore, the measured depth to water is subtracted from the top of casing elevation to determine the corrected water elevation.

- For wells with measured product:

DTW	=	Depth to Water	=	(measured)
DTP	=	Depth to Product	=	(measured)
TOC	=	Top of Casing Elevation	=	(surveyed)
G	=	Product Specific Gravity	=	(measured or from literature)
PT	=	Product Thickness	=	DTW - DTP
HE	=	Hydraulic Equivalent of Product	=	PT x G
CDTW	=	Corrected Depth to Water	=	DTW - HE
CWE	=	Corrected Water Elevation	=	TOC - CDTW

- For wells containing no product:

$$\text{CWE} = \text{Corrected Water Elevation} = \text{TOC} - \text{DTW}$$

Equipment Calibration

Prior to monitoring well purging, the monitoring equipment used to measure pH, DO, turbidity, ORP, and specific conductance should be calibrated or checked according to manufacturer's directions. The pH meter calibration should bracket the pH range of the wells to be sampled (acidic to neutral pH range {4.00 to 7.00} or neutral to basic pH range {7.00 to 10.00}). The DO meter should be calibrated to one point air saturated water. ORP should be calibrated against a known standard, such as a Zobell solution. The instrument should display a millivolt (mv) value that falls within the range set by the manufacturer. The SC meter is calibrated with a known standard, typical standards are 1.0, 10.0, and 50.0 millimhos per centimeter at 25° Celsius.

Conventional / Modified Well Purging

It is necessary to purge a sufficient volume of the stagnant water from the well casing to ensure that a representative sample of formation water is obtained. The volume of water to be purged is typically 3 casing volumes. Monitoring of water quality parameters of the purge water is used to determine when a representative sample can be collected. During purging, the parameters, temperature, pH, and specific conductance, are measured every 3-5 minutes. The groundwater sample is collected when these ground-water quality parameters have stabilized. Parameter stabilization is defined as three successive readings with units of:

Temperature: +/- 0.5° Celsius
 pH: +/- 0.2
 Specific Conductance: +/- 10%

If groundwater hasn't stabilized, to the above criteria, after 3 well volumes, 2 additional well volumes shall be purged from the well, prior to sample collection. Monitoring well purging will be considered complete after 5 well volumes have been removed from the well. All purge volumes and final water quality parameter readings should be recorded on Groundwater Sampling Logs.

Monitoring wells with a designated "Modified" well sampling technique are generally screened within fine-grained units and are low yielding wells. These select wells should be purged accordingly:

- A purge rate should be selected as to stabilize drawdown. If the well is able to sustain a 0.5 gallon per minute (gpm) purge rate, then once temperature, pH, and specific conductance parameters have stabilized, as listed above, well purging is considered complete. All purge rates and volumes removed will be recorded on Groundwater Sampling Logs.

- If the well is unable to sustain a 0.5 gpm purge rate and the well is pumped dry, then groundwater samples will be collected once the well has recovered a sufficient amount of water to bail. A disposable or properly decontaminated Teflon™ bailer should be used to sample. If the well is purged dry a note will be recorded on the Groundwater Sampling Log.

Techniques for conventional / modified well purging include:

- Acceptable purge/sampling devices for this project shall be submersible positive-displacement type pumps, bailers, and bladder pumps for purging and sampling. It is recommended to purge and sample at similar rates.
- Purging should be accomplished with as minimal disturbance to the surrounding formation as possible.
- Purge water is containerized on-site and stored as directed by the Project Manager.

The following formula may be used to determine the volume of any well:

$$V = 5.875 \times C^2 \times H$$

where: V = volume in gallons
 C = casing diameter, in feet
 H = height of water column, in feet

Using this formula, the volume per linear foot of well casing of common casing sizes is listed below:

Casing Diameter (inches)	Volume per Linear Foot (gallons)
1.5"	0.092
2.0"	0.163
4.0"	0.563
6.0"	1.469

Conventional/Modified Well Sampling

After purging has been completed groundwater samples should be collected either directly from the new or properly decontaminated pump tubing or from a disposable or properly decontaminated Teflon™ bailer equipped with a bottom-emptying device. Appropriate containers with specific preservative should be labeled, according to section 3.2 of the Field Sampling Plan, prior to sampling. Samples should be collected in order of decreasing volatility (*i.e.*, the samples to be analyzed for the volatile constituents should be collected first). The filled sample containers should be immediately placed in a chilled cooler awaiting delivery to the analytical laboratory. All samples should be handled according to Chain of Custody SOPs.

Filtering of samples for dissolved metals analysis will be conducted in the field using a disposable 0.45 micron (μm) in-line filters. Field filtering will be conducted by either:

Sampling by pump:

- Screwing the disposable 0.45 μm filter into the discharge sampling line and sampling directly for the filter after two filter volumes have been run through it.

Sampling by bailer:

- Using a Teflon™ connector to attach the in-line filter to the bottom-emptying device of the bailer, allow gravity to feed the water through the filter. Sampling will begin after two filter volumes have passed through the filter.

Purging and Sampling with Low-Flow Pump

- To obtain representative samples, subsurface disturbances should be kept to a minimum, thereby preventing sample alteration due to sampling actions. The use of low-flow pumps to purge and sample minimizes physical disturbance (turbulence) and chemical changes (aeration). The low-flow pump is the preferred method for both purging and sampling in most cases. For the purposes of this SOP, "low-flow pumps" are defined as variable speed submersible pumps. Practical operational flow rates for these sampling devices range from 0.1 L/min to 30 L/min.
- Lower the pump, safety cable, tubing, and electrical lines into the well, slowly so as not to agitate the water, until the pump is at the mid-point of the screened interval.
- Lower the water level probe into the well behind the pump until it just touches water. This will allow the sampler to monitor the water level while purging and sampling, and prevent drying of the well.
- Measure initial water level.
- Begin purging at the pump's lowest setting, then gradually increase rate until discharge occurs. The well will be pumped at a rate which will cause little or no drawdown in the well (less than 0.3 feet). The water level and pumping rate will be recorded every 3 to 5 minutes (or as appropriate during pumping). Use 1L graduated cylinders to measure flow rate.
- Monitor water chemistry parameters beginning immediately, using an in-line monitoring system, if possible. A flow-through-cell and combination sonde unit can be used. Stabilization parameters include temperature, specific conductivity, pH, and turbidity measured at 3 to 5 minute intervals. If required and if a flow-through cell is used, dissolved oxygen, turbidity and a Eh will also be monitored. When these stabilization parameters are in agreement within approximately 10% (0.2 pH units) for three

consecutive intervals, purging is complete. A T fitting can be installed before the water enters the flow-through-cell. This T fitting can be used to obtain the turbidity sample.

- Record all measurements on the Groundwater Sampling Form.
- Following purging, the flow through cell shall be disconnected, and groundwater samples collected directly from the discharge line. Samples for laboratory analysis will always be collected in order of decreasing volatility (*i.e.*, the samples to be analyzed for the volatile constituents should be collected first.) Deliver the VOC sample to the vial by allowing the water to trickle down the inside wall of the vial at a rate no greater than approximately 100 mL/min. Other samples may be delivered at a faster rate. Sampling rates will at no time exceed 1 L/min. Sample preservation procedures are contained in the QAPP and SOP 015. When collecting samples for volatile analysis care should be taken to prevent analyte loss by volatilization. The following procedures should be adhered to when collecting these samples.
 - Avoid excessive aeration and agitation of sample.
 - Fill pre-preserved vial by slightly tilting the vial so the water runs down the inside wall of the bottle. As vial fills, gradually turn upright such that a reverse meniscus is formed.
 - Place septum cap on vial. If air bubbles are present, properly dispose of that sample and recollect the sample in the same vial and represerve.
 - Make sure vial is labeled and immediately transfer the vial to the cooler with ice.
- All samples will be delivered to the laboratory as soon as possible. If possible, samples will be shipped on the same day as they are collected. If samples must be retained due to weekend sampling (Friday through Sunday), the lab shall be notified as to the time sensitive nature of the samples.
- Continue sample collection beginning with the volatile aliquot.
- Filtering of samples for dissolved metals analysis will be conducted in the field using a disposable 0.45 micron (μm) in-line filters. Screw the disposable 0.45 μm filter into the discharge sampling line and sample directly for the filter after two filter volumes have been run through it.
- After collection, all sample aliquots will be handled per the procedures as described in the FSP, QAPP, and SOPs concerning preservation and sample custody and packing.
- Remove and decon water level probe, the pump and tubing.

PRECAUTIONS

- Refer to the HSP for appropriate PPE.
- Generator must be located downwind.
- Sampling wells in order of increasing chemical concentrations (known or anticipated) is preferred.

REFERENCES

- Gass, Tylor E.; Barker, James F.; Dickhout, R.; Fyfe, J. S.; 1991, Test Results of the Grundfos Ground-water Sampling Pump, From: "Proceedings of the Fifth National Symposium on Aquifer Restoration and Ground Water Monitoring"
- M^cAlary, T. A. and Barker, J. F.; 1987, Volatilization Losses of Organics During Ground Water Sampling From Low Permeability Materials In "Ground Water Monitoring Review" Fall 1987.
- Nielsen, David M., 1991. Practical Handbook of Groundwater Monitoring, Lewis Publishers. Chelsea, MI.
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- US EPA. 1996. Low Flow Groundwater Sampling Procedures. Office of Research and Development and Office of Solid Waste And Emergency Response, EPA/5401/S-95/504. April.

ATTACHMENT 2

LABORATORY ANALYTICAL REPORT



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1405953

Report Created for: Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Project Contact: Adam Brown

Project P.O.:

Project Name: #731630001

Project Received: 05/23/2014

Analytical Report reviewed & approved for release on 06/03/2014 by:

*Question about
your data?*

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

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Glossary of Terms & Qualifier Definitions

Client: Treadwell & Rollo

Project: #731630001

WorkOrder: 1405953

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence



Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-1	1405953-001A	Water	05/20/2014 07:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/29/2014 15:19
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/29/2014 15:19
Benzene	ND		0.50	1	05/29/2014 15:19
Bromobenzene	ND		0.50	1	05/29/2014 15:19
Bromochloromethane	ND		0.50	1	05/29/2014 15:19
Bromodichloromethane	ND		0.50	1	05/29/2014 15:19
Bromoform	ND		0.50	1	05/29/2014 15:19
Bromomethane	ND		0.50	1	05/29/2014 15:19
2-Butanone (MEK)	ND		2.0	1	05/29/2014 15:19
t-Butyl alcohol (TBA)	ND		2.0	1	05/29/2014 15:19
n-Butyl benzene	ND		0.50	1	05/29/2014 15:19
sec-Butyl benzene	ND		0.50	1	05/29/2014 15:19
tert-Butyl benzene	ND		0.50	1	05/29/2014 15:19
Carbon Disulfide	ND		0.50	1	05/29/2014 15:19
Carbon Tetrachloride	ND		0.50	1	05/29/2014 15:19
Chlorobenzene	ND		0.50	1	05/29/2014 15:19
Chloroethane	ND		0.50	1	05/29/2014 15:19
Chloroform	ND		0.50	1	05/29/2014 15:19
Chloromethane	ND		0.50	1	05/29/2014 15:19
2-Chlorotoluene	ND		0.50	1	05/29/2014 15:19
4-Chlorotoluene	ND		0.50	1	05/29/2014 15:19
Dibromochloromethane	ND		0.50	1	05/29/2014 15:19
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/29/2014 15:19
1,2-Dibromoethane (EDB)	ND		0.50	1	05/29/2014 15:19
Dibromomethane	ND		0.50	1	05/29/2014 15:19
1,2-Dichlorobenzene	ND		0.50	1	05/29/2014 15:19
1,3-Dichlorobenzene	ND		0.50	1	05/29/2014 15:19
1,4-Dichlorobenzene	ND		0.50	1	05/29/2014 15:19
Dichlorodifluoromethane	ND		0.50	1	05/29/2014 15:19
1,1-Dichloroethane	ND		0.50	1	05/29/2014 15:19
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/29/2014 15:19
1,1-Dichloroethene	ND		0.50	1	05/29/2014 15:19
cis-1,2-Dichloroethene	ND		0.50	1	05/29/2014 15:19
trans-1,2-Dichloroethene	ND		0.50	1	05/29/2014 15:19
1,2-Dichloropropane	ND		0.50	1	05/29/2014 15:19
1,3-Dichloropropane	ND		0.50	1	05/29/2014 15:19
2,2-Dichloropropane	ND		0.50	1	05/29/2014 15:19
1,1-Dichloropropene	ND		0.50	1	05/29/2014 15:19

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-1	1405953-001A	Water	05/20/2014 07:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/29/2014 15:19
trans-1,3-Dichloropropene	ND		0.50	1	05/29/2014 15:19
Diisopropyl ether (DIPE)	ND		0.50	1	05/29/2014 15:19
Ethylbenzene	ND		0.50	1	05/29/2014 15:19
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/29/2014 15:19
Freon 113	ND		0.50	1	05/29/2014 15:19
Hexachlorobutadiene	ND		0.50	1	05/29/2014 15:19
Hexachloroethane	ND		0.50	1	05/29/2014 15:19
2-Hexanone	ND		0.50	1	05/29/2014 15:19
Isopropylbenzene	ND		0.50	1	05/29/2014 15:19
4-Isopropyl toluene	ND		0.50	1	05/29/2014 15:19
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/29/2014 15:19
Methylene chloride	ND		0.50	1	05/29/2014 15:19
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/29/2014 15:19
Naphthalene	ND		0.50	1	05/29/2014 15:19
n-Propyl benzene	ND		0.50	1	05/29/2014 15:19
Styrene	ND		0.50	1	05/29/2014 15:19
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/29/2014 15:19
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/29/2014 15:19
Tetrachloroethene	ND		0.50	1	05/29/2014 15:19
Toluene	ND		0.50	1	05/29/2014 15:19
1,2,3-Trichlorobenzene	ND		0.50	1	05/29/2014 15:19
1,2,4-Trichlorobenzene	ND		0.50	1	05/29/2014 15:19
1,1,1-Trichloroethane	ND		0.50	1	05/29/2014 15:19
1,1,2-Trichloroethane	ND		0.50	1	05/29/2014 15:19
Trichloroethene	ND		0.50	1	05/29/2014 15:19
Trichlorofluoromethane	ND		0.50	1	05/29/2014 15:19
1,2,3-Trichloropropane	ND		0.50	1	05/29/2014 15:19
1,2,4-Trimethylbenzene	ND		0.50	1	05/29/2014 15:19
1,3,5-Trimethylbenzene	ND		0.50	1	05/29/2014 15:19
Vinyl Chloride	ND		0.50	1	05/29/2014 15:19
Xylenes, Total	ND		0.50	1	05/29/2014 15:19
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	104		70-130		05/29/2014 15:19
Toluene-d8	99		70-130		05/29/2014 15:19
4-BFB	99		70-130		05/29/2014 15:19

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Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1405953-002A	Water	05/20/2014 11:10	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		5000	500	05/29/2014 17:30
tert-Amyl methyl ether (TAME)	ND		250	500	05/29/2014 17:30
Benzene	1900		250	500	05/29/2014 17:30
Bromobenzene	ND		250	500	05/29/2014 17:30
Bromochloromethane	ND		250	500	05/29/2014 17:30
Bromodichloromethane	ND		250	500	05/29/2014 17:30
Bromoform	ND		250	500	05/29/2014 17:30
Bromomethane	ND		250	500	05/29/2014 17:30
2-Butanone (MEK)	ND		1000	500	05/29/2014 17:30
t-Butyl alcohol (TBA)	ND		1000	500	05/29/2014 17:30
n-Butyl benzene	ND		250	500	05/29/2014 17:30
sec-Butyl benzene	ND		250	500	05/29/2014 17:30
tert-Butyl benzene	ND		250	500	05/29/2014 17:30
Carbon Disulfide	ND		250	500	05/29/2014 17:30
Carbon Tetrachloride	ND		250	500	05/29/2014 17:30
Chlorobenzene	ND		250	500	05/29/2014 17:30
Chloroethane	ND		250	500	05/29/2014 17:30
Chloroform	ND		250	500	05/29/2014 17:30
Chloromethane	ND		250	500	05/29/2014 17:30
2-Chlorotoluene	ND		250	500	05/29/2014 17:30
4-Chlorotoluene	ND		250	500	05/29/2014 17:30
Dibromochloromethane	ND		250	500	05/29/2014 17:30
1,2-Dibromo-3-chloropropane	ND		100	500	05/29/2014 17:30
1,2-Dibromoethane (EDB)	ND		250	500	05/29/2014 17:30
Dibromomethane	ND		250	500	05/29/2014 17:30
1,2-Dichlorobenzene	ND		250	500	05/29/2014 17:30
1,3-Dichlorobenzene	ND		250	500	05/29/2014 17:30
1,4-Dichlorobenzene	ND		250	500	05/29/2014 17:30
Dichlorodifluoromethane	ND		250	500	05/29/2014 17:30
1,1-Dichloroethane	ND		250	500	05/29/2014 17:30
1,2-Dichloroethane (1,2-DCA)	ND		250	500	05/29/2014 17:30
1,1-Dichloroethene	ND		250	500	05/29/2014 17:30
cis-1,2-Dichloroethene	ND		250	500	05/29/2014 17:30
trans-1,2-Dichloroethene	ND		250	500	05/29/2014 17:30
1,2-Dichloropropane	ND		250	500	05/29/2014 17:30
1,3-Dichloropropane	ND		250	500	05/29/2014 17:30
2,2-Dichloropropane	ND		250	500	05/29/2014 17:30
1,1-Dichloropropene	ND		250	500	05/29/2014 17:30

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WorkOrder: 1405953
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Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-4	1405953-002A	Water	05/20/2014 11:10	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		250	500	05/29/2014 17:30
trans-1,3-Dichloropropene	ND		250	500	05/29/2014 17:30
Diisopropyl ether (DIPE)	ND		250	500	05/29/2014 17:30
Ethylbenzene	1400		250	500	05/29/2014 17:30
Ethyl tert-butyl ether (ETBE)	ND		250	500	05/29/2014 17:30
Freon 113	ND		250	500	05/29/2014 17:30
Hexachlorobutadiene	ND		250	500	05/29/2014 17:30
Hexachloroethane	ND		250	500	05/29/2014 17:30
2-Hexanone	ND		250	500	05/29/2014 17:30
Isopropylbenzene	ND		250	500	05/29/2014 17:30
4-Isopropyl toluene	ND		250	500	05/29/2014 17:30
Methyl-t-butyl ether (MTBE)	ND		250	500	05/29/2014 17:30
Methylene chloride	ND		250	500	05/29/2014 17:30
4-Methyl-2-pentanone (MIBK)	ND		250	500	05/29/2014 17:30
Naphthalene	1100		250	500	05/29/2014 17:30
n-Propyl benzene	270		250	500	05/29/2014 17:30
Styrene	ND		250	500	05/29/2014 17:30
1,1,1,2-Tetrachloroethane	ND		250	500	05/29/2014 17:30
1,1,2,2-Tetrachloroethane	ND		250	500	05/29/2014 17:30
Tetrachloroethene	ND		250	500	05/29/2014 17:30
Toluene	7300		250	500	05/29/2014 17:30
1,2,3-Trichlorobenzene	ND		250	500	05/29/2014 17:30
1,2,4-Trichlorobenzene	ND		250	500	05/29/2014 17:30
1,1,1-Trichloroethane	ND		250	500	05/29/2014 17:30
1,1,2-Trichloroethane	ND		250	500	05/29/2014 17:30
Trichloroethene	ND		250	500	05/29/2014 17:30
Trichlorofluoromethane	ND		250	500	05/29/2014 17:30
1,2,3-Trichloropropane	ND		250	500	05/29/2014 17:30
1,2,4-Trimethylbenzene	4200		250	500	05/29/2014 17:30
1,3,5-Trimethylbenzene	1100		250	500	05/29/2014 17:30
Vinyl Chloride	ND		250	500	05/29/2014 17:30
Xylenes, Total	9400		250	500	05/29/2014 17:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		05/29/2014 17:30
Toluene-d8	97		70-130		05/29/2014 17:30
4-BFB	98		70-130		05/29/2014 17:30

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-10	1405953-003A	Water	05/20/2014 11:50	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10,000	1000	05/30/2014 12:00
tert-Amyl methyl ether (TAME)	ND		500	1000	05/30/2014 12:00
Benzene	5600		500	1000	05/30/2014 12:00
Bromobenzene	ND		500	1000	05/30/2014 12:00
Bromochloromethane	ND		500	1000	05/30/2014 12:00
Bromodichloromethane	ND		500	1000	05/30/2014 12:00
Bromoform	ND		500	1000	05/30/2014 12:00
Bromomethane	ND		500	1000	05/30/2014 12:00
2-Butanone (MEK)	ND		2000	1000	05/30/2014 12:00
t-Butyl alcohol (TBA)	ND		2000	1000	05/30/2014 12:00
n-Butyl benzene	ND		500	1000	05/30/2014 12:00
sec-Butyl benzene	ND		500	1000	05/30/2014 12:00
tert-Butyl benzene	ND		500	1000	05/30/2014 12:00
Carbon Disulfide	ND		500	1000	05/30/2014 12:00
Carbon Tetrachloride	ND		500	1000	05/30/2014 12:00
Chlorobenzene	ND		500	1000	05/30/2014 12:00
Chloroethane	ND		500	1000	05/30/2014 12:00
Chloroform	ND		500	1000	05/30/2014 12:00
Chloromethane	ND		500	1000	05/30/2014 12:00
2-Chlorotoluene	ND		500	1000	05/30/2014 12:00
4-Chlorotoluene	ND		500	1000	05/30/2014 12:00
Dibromochloromethane	ND		500	1000	05/30/2014 12:00
1,2-Dibromo-3-chloropropane	ND		200	1000	05/30/2014 12:00
1,2-Dibromoethane (EDB)	ND		500	1000	05/30/2014 12:00
Dibromomethane	ND		500	1000	05/30/2014 12:00
1,2-Dichlorobenzene	ND		500	1000	05/30/2014 12:00
1,3-Dichlorobenzene	ND		500	1000	05/30/2014 12:00
1,4-Dichlorobenzene	ND		500	1000	05/30/2014 12:00
Dichlorodifluoromethane	ND		500	1000	05/30/2014 12:00
1,1-Dichloroethane	ND		500	1000	05/30/2014 12:00
1,2-Dichloroethane (1,2-DCA)	ND		500	1000	05/30/2014 12:00
1,1-Dichloroethene	ND		500	1000	05/30/2014 12:00
cis-1,2-Dichloroethene	ND		500	1000	05/30/2014 12:00
trans-1,2-Dichloroethene	ND		500	1000	05/30/2014 12:00
1,2-Dichloropropane	ND		500	1000	05/30/2014 12:00
1,3-Dichloropropane	ND		500	1000	05/30/2014 12:00
2,2-Dichloropropane	ND		500	1000	05/30/2014 12:00
1,1-Dichloropropene	ND		500	1000	05/30/2014 12:00

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
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Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-10	1405953-003A	Water	05/20/2014 11:50	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		500	1000	05/30/2014 12:00
trans-1,3-Dichloropropene	ND		500	1000	05/30/2014 12:00
Diisopropyl ether (DIPE)	ND		500	1000	05/30/2014 12:00
Ethylbenzene	1700		500	1000	05/30/2014 12:00
Ethyl tert-butyl ether (ETBE)	ND		500	1000	05/30/2014 12:00
Freon 113	ND		500	1000	05/30/2014 12:00
Hexachlorobutadiene	ND		500	1000	05/30/2014 12:00
Hexachloroethane	ND		500	1000	05/30/2014 12:00
2-Hexanone	ND		500	1000	05/30/2014 12:00
Isopropylbenzene	ND		500	1000	05/30/2014 12:00
4-Isopropyl toluene	ND		500	1000	05/30/2014 12:00
Methyl-t-butyl ether (MTBE)	ND		500	1000	05/30/2014 12:00
Methylene chloride	ND		500	1000	05/30/2014 12:00
4-Methyl-2-pentanone (MIBK)	ND		500	1000	05/30/2014 12:00
Naphthalene	770		500	1000	05/30/2014 12:00
n-Propyl benzene	ND		500	1000	05/30/2014 12:00
Styrene	ND		500	1000	05/30/2014 12:00
1,1,1,2-Tetrachloroethane	ND		500	1000	05/30/2014 12:00
1,1,2,2-Tetrachloroethane	ND		500	1000	05/30/2014 12:00
Tetrachloroethene	ND		500	1000	05/30/2014 12:00
Toluene	18,000		500	1000	05/30/2014 12:00
1,2,3-Trichlorobenzene	ND		500	1000	05/30/2014 12:00
1,2,4-Trichlorobenzene	ND		500	1000	05/30/2014 12:00
1,1,1-Trichloroethane	ND		500	1000	05/30/2014 12:00
1,1,2-Trichloroethane	ND		500	1000	05/30/2014 12:00
Trichloroethene	ND		500	1000	05/30/2014 12:00
Trichlorofluoromethane	ND		500	1000	05/30/2014 12:00
1,2,3-Trichloropropane	ND		500	1000	05/30/2014 12:00
1,2,4-Trimethylbenzene	3500		500	1000	05/30/2014 12:00
1,3,5-Trimethylbenzene	890		500	1000	05/30/2014 12:00
Vinyl Chloride	ND		500	1000	05/30/2014 12:00
Xylenes, Total	9900		500	1000	05/30/2014 12:00
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	98		70-130		05/30/2014 12:00
Toluene-d8	104		70-130		05/30/2014 12:00
4-BFB	100		70-130		05/30/2014 12:00

(Cont.)



Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-2	1405953-004A	Water	05/20/2014 12:25	GC28	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		200	20	05/30/2014 12:39
tert-Amyl methyl ether (TAME)	ND		10	20	05/30/2014 12:39
Benzene	220		10	20	05/30/2014 12:39
Bromobenzene	ND		10	20	05/30/2014 12:39
Bromochloromethane	ND		10	20	05/30/2014 12:39
Bromodichloromethane	ND		10	20	05/30/2014 12:39
Bromoform	ND		10	20	05/30/2014 12:39
Bromomethane	ND		10	20	05/30/2014 12:39
2-Butanone (MEK)	ND		40	20	05/30/2014 12:39
t-Butyl alcohol (TBA)	49		40	20	05/30/2014 12:39
n-Butyl benzene	ND		10	20	05/30/2014 12:39
sec-Butyl benzene	ND		10	20	05/30/2014 12:39
tert-Butyl benzene	ND		10	20	05/30/2014 12:39
Carbon Disulfide	ND		10	20	05/30/2014 12:39
Carbon Tetrachloride	ND		10	20	05/30/2014 12:39
Chlorobenzene	ND		10	20	05/30/2014 12:39
Chloroethane	ND		10	20	05/30/2014 12:39
Chloroform	ND		10	20	05/30/2014 12:39
Chloromethane	ND		10	20	05/30/2014 12:39
2-Chlorotoluene	ND		10	20	05/30/2014 12:39
4-Chlorotoluene	ND		10	20	05/30/2014 12:39
Dibromochloromethane	ND		10	20	05/30/2014 12:39
1,2-Dibromo-3-chloropropane	ND		4.0	20	05/30/2014 12:39
1,2-Dibromoethane (EDB)	ND		10	20	05/30/2014 12:39
Dibromomethane	ND		10	20	05/30/2014 12:39
1,2-Dichlorobenzene	ND		10	20	05/30/2014 12:39
1,3-Dichlorobenzene	ND		10	20	05/30/2014 12:39
1,4-Dichlorobenzene	ND		10	20	05/30/2014 12:39
Dichlorodifluoromethane	ND		10	20	05/30/2014 12:39
1,1-Dichloroethane	ND		10	20	05/30/2014 12:39
1,2-Dichloroethane (1,2-DCA)	ND		10	20	05/30/2014 12:39
1,1-Dichloroethene	ND		10	20	05/30/2014 12:39
cis-1,2-Dichloroethene	ND		10	20	05/30/2014 12:39
trans-1,2-Dichloroethene	ND		10	20	05/30/2014 12:39
1,2-Dichloropropane	ND		10	20	05/30/2014 12:39
1,3-Dichloropropane	ND		10	20	05/30/2014 12:39
2,2-Dichloropropane	ND		10	20	05/30/2014 12:39
1,1-Dichloropropene	ND		10	20	05/30/2014 12:39

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-2	1405953-004A	Water	05/20/2014 12:25	GC28	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		10	20	05/30/2014 12:39
trans-1,3-Dichloropropene	ND		10	20	05/30/2014 12:39
Diisopropyl ether (DIPE)	ND		10	20	05/30/2014 12:39
Ethylbenzene	140		10	20	05/30/2014 12:39
Ethyl tert-butyl ether (ETBE)	ND		10	20	05/30/2014 12:39
Freon 113	ND		10	20	05/30/2014 12:39
Hexachlorobutadiene	ND		10	20	05/30/2014 12:39
Hexachloroethane	ND		10	20	05/30/2014 12:39
2-Hexanone	ND		10	20	05/30/2014 12:39
Isopropylbenzene	ND		10	20	05/30/2014 12:39
4-Isopropyl toluene	ND		10	20	05/30/2014 12:39
Methyl-t-butyl ether (MTBE)	ND		10	20	05/30/2014 12:39
Methylene chloride	ND		10	20	05/30/2014 12:39
4-Methyl-2-pentanone (MIBK)	ND		10	20	05/30/2014 12:39
Naphthalene	38		10	20	05/30/2014 12:39
n-Propyl benzene	10		10	20	05/30/2014 12:39
Styrene	ND		10	20	05/30/2014 12:39
1,1,1,2-Tetrachloroethane	ND		10	20	05/30/2014 12:39
1,1,2,2-Tetrachloroethane	ND		10	20	05/30/2014 12:39
Tetrachloroethene	ND		10	20	05/30/2014 12:39
Toluene	330		10	20	05/30/2014 12:39
1,2,3-Trichlorobenzene	ND		10	20	05/30/2014 12:39
1,2,4-Trichlorobenzene	ND		10	20	05/30/2014 12:39
1,1,1-Trichloroethane	ND		10	20	05/30/2014 12:39
1,1,2-Trichloroethane	ND		10	20	05/30/2014 12:39
Trichloroethene	ND		10	20	05/30/2014 12:39
Trichlorofluoromethane	ND		10	20	05/30/2014 12:39
1,2,3-Trichloropropane	ND		10	20	05/30/2014 12:39
1,2,4-Trimethylbenzene	130		10	20	05/30/2014 12:39
1,3,5-Trimethylbenzene	41		10	20	05/30/2014 12:39
Vinyl Chloride	ND		10	20	05/30/2014 12:39
Xylenes, Total	780		10	20	05/30/2014 12:39
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	99		70-130		05/30/2014 12:39
Toluene-d8	104		70-130		05/30/2014 12:39
4-BFB	99		70-130		05/30/2014 12:39

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1405953-005A	Water	05/20/2014 12:45	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	5	05/29/2014 23:30
tert-Amyl methyl ether (TAME)	ND		2.5	5	05/29/2014 23:30
Benzene	ND		2.5	5	05/29/2014 23:30
Bromobenzene	ND		2.5	5	05/29/2014 23:30
Bromochloromethane	ND		2.5	5	05/29/2014 23:30
Bromodichloromethane	ND		2.5	5	05/29/2014 23:30
Bromoform	ND		2.5	5	05/29/2014 23:30
Bromomethane	ND		2.5	5	05/29/2014 23:30
2-Butanone (MEK)	ND		10	5	05/29/2014 23:30
t-Butyl alcohol (TBA)	640		10	5	05/29/2014 23:30
n-Butyl benzene	ND		2.5	5	05/29/2014 23:30
sec-Butyl benzene	ND		2.5	5	05/29/2014 23:30
tert-Butyl benzene	ND		2.5	5	05/29/2014 23:30
Carbon Disulfide	ND		2.5	5	05/29/2014 23:30
Carbon Tetrachloride	ND		2.5	5	05/29/2014 23:30
Chlorobenzene	ND		2.5	5	05/29/2014 23:30
Chloroethane	ND		2.5	5	05/29/2014 23:30
Chloroform	ND		2.5	5	05/29/2014 23:30
Chloromethane	ND		2.5	5	05/29/2014 23:30
2-Chlorotoluene	ND		2.5	5	05/29/2014 23:30
4-Chlorotoluene	ND		2.5	5	05/29/2014 23:30
Dibromochloromethane	ND		2.5	5	05/29/2014 23:30
1,2-Dibromo-3-chloropropane	ND		1.0	5	05/29/2014 23:30
1,2-Dibromoethane (EDB)	ND		2.5	5	05/29/2014 23:30
Dibromomethane	ND		2.5	5	05/29/2014 23:30
1,2-Dichlorobenzene	ND		2.5	5	05/29/2014 23:30
1,3-Dichlorobenzene	ND		2.5	5	05/29/2014 23:30
1,4-Dichlorobenzene	ND		2.5	5	05/29/2014 23:30
Dichlorodifluoromethane	ND		2.5	5	05/29/2014 23:30
1,1-Dichloroethane	ND		2.5	5	05/29/2014 23:30
1,2-Dichloroethane (1,2-DCA)	100		2.5	5	05/29/2014 23:30
1,1-Dichloroethene	ND		2.5	5	05/29/2014 23:30
cis-1,2-Dichloroethene	ND		2.5	5	05/29/2014 23:30
trans-1,2-Dichloroethene	ND		2.5	5	05/29/2014 23:30
1,2-Dichloropropane	ND		2.5	5	05/29/2014 23:30
1,3-Dichloropropane	ND		2.5	5	05/29/2014 23:30
2,2-Dichloropropane	ND		2.5	5	05/29/2014 23:30
1,1-Dichloropropene	ND		2.5	5	05/29/2014 23:30

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-9	1405953-005A	Water	05/20/2014 12:45	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.5	5	05/29/2014 23:30
trans-1,3-Dichloropropene	ND		2.5	5	05/29/2014 23:30
Diisopropyl ether (DIPE)	ND		2.5	5	05/29/2014 23:30
Ethylbenzene	ND		2.5	5	05/29/2014 23:30
Ethyl tert-butyl ether (ETBE)	ND		2.5	5	05/29/2014 23:30
Freon 113	ND		2.5	5	05/29/2014 23:30
Hexachlorobutadiene	ND		2.5	5	05/29/2014 23:30
Hexachloroethane	ND		2.5	5	05/29/2014 23:30
2-Hexanone	ND		2.5	5	05/29/2014 23:30
Isopropylbenzene	ND		2.5	5	05/29/2014 23:30
4-Isopropyl toluene	ND		2.5	5	05/29/2014 23:30
Methyl-t-butyl ether (MTBE)	ND		2.5	5	05/29/2014 23:30
Methylene chloride	ND		2.5	5	05/29/2014 23:30
4-Methyl-2-pentanone (MIBK)	ND		2.5	5	05/29/2014 23:30
Naphthalene	ND		2.5	5	05/29/2014 23:30
n-Propyl benzene	ND		2.5	5	05/29/2014 23:30
Styrene	ND		2.5	5	05/29/2014 23:30
1,1,1,2-Tetrachloroethane	ND		2.5	5	05/29/2014 23:30
1,1,2,2-Tetrachloroethane	ND		2.5	5	05/29/2014 23:30
Tetrachloroethene	ND		2.5	5	05/29/2014 23:30
Toluene	ND		2.5	5	05/29/2014 23:30
1,2,3-Trichlorobenzene	ND		2.5	5	05/29/2014 23:30
1,2,4-Trichlorobenzene	ND		2.5	5	05/29/2014 23:30
1,1,1-Trichloroethane	ND		2.5	5	05/29/2014 23:30
1,1,2-Trichloroethane	ND		2.5	5	05/29/2014 23:30
Trichloroethene	ND		2.5	5	05/29/2014 23:30
Trichlorofluoromethane	ND		2.5	5	05/29/2014 23:30
1,2,3-Trichloropropane	ND		2.5	5	05/29/2014 23:30
1,2,4-Trimethylbenzene	ND		2.5	5	05/29/2014 23:30
1,3,5-Trimethylbenzene	ND		2.5	5	05/29/2014 23:30
Vinyl Chloride	ND		2.5	5	05/29/2014 23:30
Xylenes, Total	ND		2.5	5	05/29/2014 23:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	116		70-130		05/29/2014 23:30
Toluene-d8	97		70-130		05/29/2014 23:30
4-BFB	97		70-130		05/29/2014 23:30

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-6	1405953-006A	Water	05/20/2014 13:55	GC28	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		1000	100	05/31/2014 01:29
tert-Amyl methyl ether (TAME)	ND		50	100	05/31/2014 01:29
Benzene	3700		50	100	05/31/2014 01:29
Bromobenzene	ND		50	100	05/31/2014 01:29
Bromochloromethane	ND		50	100	05/31/2014 01:29
Bromodichloromethane	ND		50	100	05/31/2014 01:29
Bromoform	ND		50	100	05/31/2014 01:29
Bromomethane	ND		50	100	05/31/2014 01:29
2-Butanone (MEK)	ND		200	100	05/31/2014 01:29
t-Butyl alcohol (TBA)	490		200	100	05/31/2014 01:29
n-Butyl benzene	ND		50	100	05/31/2014 01:29
sec-Butyl benzene	ND		50	100	05/31/2014 01:29
tert-Butyl benzene	ND		50	100	05/31/2014 01:29
Carbon Disulfide	ND		50	100	05/31/2014 01:29
Carbon Tetrachloride	ND		50	100	05/31/2014 01:29
Chlorobenzene	ND		50	100	05/31/2014 01:29
Chloroethane	ND		50	100	05/31/2014 01:29
Chloroform	ND		50	100	05/31/2014 01:29
Chloromethane	ND		50	100	05/31/2014 01:29
2-Chlorotoluene	ND		50	100	05/31/2014 01:29
4-Chlorotoluene	ND		50	100	05/31/2014 01:29
Dibromochloromethane	ND		50	100	05/31/2014 01:29
1,2-Dibromo-3-chloropropane	ND		20	100	05/31/2014 01:29
1,2-Dibromoethane (EDB)	ND		50	100	05/31/2014 01:29
Dibromomethane	ND		50	100	05/31/2014 01:29
1,2-Dichlorobenzene	ND		50	100	05/31/2014 01:29
1,3-Dichlorobenzene	ND		50	100	05/31/2014 01:29
1,4-Dichlorobenzene	ND		50	100	05/31/2014 01:29
Dichlorodifluoromethane	ND		50	100	05/31/2014 01:29
1,1-Dichloroethane	ND		50	100	05/31/2014 01:29
1,2-Dichloroethane (1,2-DCA)	ND		50	100	05/31/2014 01:29
1,1-Dichloroethene	ND		50	100	05/31/2014 01:29
cis-1,2-Dichloroethene	ND		50	100	05/31/2014 01:29
trans-1,2-Dichloroethene	ND		50	100	05/31/2014 01:29
1,2-Dichloropropane	ND		50	100	05/31/2014 01:29
1,3-Dichloropropane	ND		50	100	05/31/2014 01:29
2,2-Dichloropropane	ND		50	100	05/31/2014 01:29
1,1-Dichloropropene	ND		50	100	05/31/2014 01:29

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-6	1405953-006A	Water	05/20/2014 13:55	GC28	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		50	100	05/31/2014 01:29
trans-1,3-Dichloropropene	ND		50	100	05/31/2014 01:29
Diisopropyl ether (DIPE)	ND		50	100	05/31/2014 01:29
Ethylbenzene	830		50	100	05/31/2014 01:29
Ethyl tert-butyl ether (ETBE)	ND		50	100	05/31/2014 01:29
Freon 113	ND		50	100	05/31/2014 01:29
Hexachlorobutadiene	ND		50	100	05/31/2014 01:29
Hexachloroethane	ND		50	100	05/31/2014 01:29
2-Hexanone	ND		50	100	05/31/2014 01:29
Isopropylbenzene	50		50	100	05/31/2014 01:29
4-Isopropyl toluene	ND		50	100	05/31/2014 01:29
Methyl-t-butyl ether (MTBE)	ND		50	100	05/31/2014 01:29
Methylene chloride	ND		50	100	05/31/2014 01:29
4-Methyl-2-pentanone (MIBK)	ND		50	100	05/31/2014 01:29
Naphthalene	200		50	100	05/31/2014 01:29
n-Propyl benzene	110		50	100	05/31/2014 01:29
Styrene	ND		50	100	05/31/2014 01:29
1,1,1,2-Tetrachloroethane	ND		50	100	05/31/2014 01:29
1,1,2,2-Tetrachloroethane	ND		50	100	05/31/2014 01:29
Tetrachloroethene	ND		50	100	05/31/2014 01:29
Toluene	530		50	100	05/31/2014 01:29
1,2,3-Trichlorobenzene	ND		50	100	05/31/2014 01:29
1,2,4-Trichlorobenzene	ND		50	100	05/31/2014 01:29
1,1,1-Trichloroethane	ND		50	100	05/31/2014 01:29
1,1,2-Trichloroethane	ND		50	100	05/31/2014 01:29
Trichloroethene	ND		50	100	05/31/2014 01:29
Trichlorofluoromethane	ND		50	100	05/31/2014 01:29
1,2,3-Trichloropropane	ND		50	100	05/31/2014 01:29
1,2,4-Trimethylbenzene	1000		50	100	05/31/2014 01:29
1,3,5-Trimethylbenzene	96		50	100	05/31/2014 01:29
Vinyl Chloride	ND		50	100	05/31/2014 01:29
Xylenes, Total	840		50	100	05/31/2014 01:29
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	100		70-130		05/31/2014 01:29
Toluene-d8	103		70-130		05/31/2014 01:29
4-BFB	95		70-130		05/31/2014 01:29

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-7	1405953-007A	Water	05/20/2014 15:05	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 00:50
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 00:50
Benzene	ND		0.50	1	05/30/2014 00:50
Bromobenzene	ND		0.50	1	05/30/2014 00:50
Bromochloromethane	ND		0.50	1	05/30/2014 00:50
Bromodichloromethane	ND		0.50	1	05/30/2014 00:50
Bromoform	ND		0.50	1	05/30/2014 00:50
Bromomethane	ND		0.50	1	05/30/2014 00:50
2-Butanone (MEK)	ND		2.0	1	05/30/2014 00:50
t-Butyl alcohol (TBA)	ND		2.0	1	05/30/2014 00:50
n-Butyl benzene	ND		0.50	1	05/30/2014 00:50
sec-Butyl benzene	ND		0.50	1	05/30/2014 00:50
tert-Butyl benzene	ND		0.50	1	05/30/2014 00:50
Carbon Disulfide	ND		0.50	1	05/30/2014 00:50
Carbon Tetrachloride	ND		0.50	1	05/30/2014 00:50
Chlorobenzene	ND		0.50	1	05/30/2014 00:50
Chloroethane	ND		0.50	1	05/30/2014 00:50
Chloroform	ND		0.50	1	05/30/2014 00:50
Chloromethane	ND		0.50	1	05/30/2014 00:50
2-Chlorotoluene	ND		0.50	1	05/30/2014 00:50
4-Chlorotoluene	ND		0.50	1	05/30/2014 00:50
Dibromochloromethane	ND		0.50	1	05/30/2014 00:50
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 00:50
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 00:50
Dibromomethane	ND		0.50	1	05/30/2014 00:50
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 00:50
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 00:50
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 00:50
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 00:50
1,1-Dichloroethane	ND		0.50	1	05/30/2014 00:50
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 00:50
1,1-Dichloroethene	ND		0.50	1	05/30/2014 00:50
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:50
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:50
1,2-Dichloropropane	ND		0.50	1	05/30/2014 00:50
1,3-Dichloropropane	ND		0.50	1	05/30/2014 00:50
2,2-Dichloropropane	ND		0.50	1	05/30/2014 00:50
1,1-Dichloropropene	ND		0.50	1	05/30/2014 00:50

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-7	1405953-007A	Water	05/20/2014 15:05	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:50
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:50
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 00:50
Ethylbenzene	ND		0.50	1	05/30/2014 00:50
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 00:50
Freon 113	ND		0.50	1	05/30/2014 00:50
Hexachlorobutadiene	ND		0.50	1	05/30/2014 00:50
Hexachloroethane	ND		0.50	1	05/30/2014 00:50
2-Hexanone	ND		0.50	1	05/30/2014 00:50
Isopropylbenzene	ND		0.50	1	05/30/2014 00:50
4-Isopropyl toluene	ND		0.50	1	05/30/2014 00:50
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 00:50
Methylene chloride	ND		0.50	1	05/30/2014 00:50
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 00:50
Naphthalene	ND		0.50	1	05/30/2014 00:50
n-Propyl benzene	ND		0.50	1	05/30/2014 00:50
Styrene	ND		0.50	1	05/30/2014 00:50
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:50
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:50
Tetrachloroethene	ND		0.50	1	05/30/2014 00:50
Toluene	ND		0.50	1	05/30/2014 00:50
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 00:50
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 00:50
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 00:50
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 00:50
Trichloroethene	ND		0.50	1	05/30/2014 00:50
Trichlorofluoromethane	ND		0.50	1	05/30/2014 00:50
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 00:50
1,2,4-Trimethylbenzene	0.51		0.50	1	05/30/2014 00:50
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 00:50
Vinyl Chloride	ND		0.50	1	05/30/2014 00:50
Xylenes, Total	0.64		0.50	1	05/30/2014 00:50
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		05/30/2014 00:50
Toluene-d8	97		70-130		05/30/2014 00:50
4-BFB	98		70-130		05/30/2014 00:50

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-2	1405953-008A	Water	05/21/2014 07:00	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 01:30
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 01:30
Benzene	ND		0.50	1	05/30/2014 01:30
Bromobenzene	ND		0.50	1	05/30/2014 01:30
Bromochloromethane	ND		0.50	1	05/30/2014 01:30
Bromodichloromethane	ND		0.50	1	05/30/2014 01:30
Bromoform	ND		0.50	1	05/30/2014 01:30
Bromomethane	ND		0.50	1	05/30/2014 01:30
2-Butanone (MEK)	ND		2.0	1	05/30/2014 01:30
t-Butyl alcohol (TBA)	ND		2.0	1	05/30/2014 01:30
n-Butyl benzene	ND		0.50	1	05/30/2014 01:30
sec-Butyl benzene	ND		0.50	1	05/30/2014 01:30
tert-Butyl benzene	ND		0.50	1	05/30/2014 01:30
Carbon Disulfide	ND		0.50	1	05/30/2014 01:30
Carbon Tetrachloride	ND		0.50	1	05/30/2014 01:30
Chlorobenzene	ND		0.50	1	05/30/2014 01:30
Chloroethane	ND		0.50	1	05/30/2014 01:30
Chloroform	ND		0.50	1	05/30/2014 01:30
Chloromethane	ND		0.50	1	05/30/2014 01:30
2-Chlorotoluene	ND		0.50	1	05/30/2014 01:30
4-Chlorotoluene	ND		0.50	1	05/30/2014 01:30
Dibromochloromethane	ND		0.50	1	05/30/2014 01:30
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 01:30
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 01:30
Dibromomethane	ND		0.50	1	05/30/2014 01:30
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 01:30
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 01:30
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 01:30
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 01:30
1,1-Dichloroethane	ND		0.50	1	05/30/2014 01:30
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 01:30
1,1-Dichloroethene	ND		0.50	1	05/30/2014 01:30
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:30
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:30
1,2-Dichloropropane	ND		0.50	1	05/30/2014 01:30
1,3-Dichloropropane	ND		0.50	1	05/30/2014 01:30
2,2-Dichloropropane	ND		0.50	1	05/30/2014 01:30
1,1-Dichloropropene	ND		0.50	1	05/30/2014 01:30

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-2	1405953-008A	Water	05/21/2014 07:00	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:30
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:30
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 01:30
Ethylbenzene	ND		0.50	1	05/30/2014 01:30
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 01:30
Freon 113	ND		0.50	1	05/30/2014 01:30
Hexachlorobutadiene	ND		0.50	1	05/30/2014 01:30
Hexachloroethane	ND		0.50	1	05/30/2014 01:30
2-Hexanone	ND		0.50	1	05/30/2014 01:30
Isopropylbenzene	ND		0.50	1	05/30/2014 01:30
4-Isopropyl toluene	ND		0.50	1	05/30/2014 01:30
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 01:30
Methylene chloride	ND		0.50	1	05/30/2014 01:30
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 01:30
Naphthalene	ND		0.50	1	05/30/2014 01:30
n-Propyl benzene	ND		0.50	1	05/30/2014 01:30
Styrene	ND		0.50	1	05/30/2014 01:30
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:30
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:30
Tetrachloroethene	ND		0.50	1	05/30/2014 01:30
Toluene	ND		0.50	1	05/30/2014 01:30
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 01:30
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 01:30
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 01:30
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 01:30
Trichloroethene	ND		0.50	1	05/30/2014 01:30
Trichlorofluoromethane	ND		0.50	1	05/30/2014 01:30
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 01:30
1,2,4-Trimethylbenzene	ND		0.50	1	05/30/2014 01:30
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 01:30
Vinyl Chloride	ND		0.50	1	05/30/2014 01:30
Xylenes, Total	ND		0.50	1	05/30/2014 01:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		05/30/2014 01:30
Toluene-d8	97		70-130		05/30/2014 01:30
4-BFB	99		70-130		05/30/2014 01:30

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1405953-009A	Water	05/21/2014 07:50	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	5	05/30/2014 18:07
tert-Amyl methyl ether (TAME)	ND		2.5	5	05/30/2014 18:07
Benzene	ND		2.5	5	05/30/2014 18:07
Bromobenzene	ND		2.5	5	05/30/2014 18:07
Bromochloromethane	ND		2.5	5	05/30/2014 18:07
Bromodichloromethane	ND		2.5	5	05/30/2014 18:07
Bromoform	ND		2.5	5	05/30/2014 18:07
Bromomethane	ND		2.5	5	05/30/2014 18:07
2-Butanone (MEK)	ND		10	5	05/30/2014 18:07
t-Butyl alcohol (TBA)	310		10	5	05/30/2014 18:07
n-Butyl benzene	ND		2.5	5	05/30/2014 18:07
sec-Butyl benzene	ND		2.5	5	05/30/2014 18:07
tert-Butyl benzene	ND		2.5	5	05/30/2014 18:07
Carbon Disulfide	ND		2.5	5	05/30/2014 18:07
Carbon Tetrachloride	ND		2.5	5	05/30/2014 18:07
Chlorobenzene	ND		2.5	5	05/30/2014 18:07
Chloroethane	ND		2.5	5	05/30/2014 18:07
Chloroform	ND		2.5	5	05/30/2014 18:07
Chloromethane	ND		2.5	5	05/30/2014 18:07
2-Chlorotoluene	ND		2.5	5	05/30/2014 18:07
4-Chlorotoluene	ND		2.5	5	05/30/2014 18:07
Dibromochloromethane	ND		2.5	5	05/30/2014 18:07
1,2-Dibromo-3-chloropropane	ND		1.0	5	05/30/2014 18:07
1,2-Dibromoethane (EDB)	ND		2.5	5	05/30/2014 18:07
Dibromomethane	ND		2.5	5	05/30/2014 18:07
1,2-Dichlorobenzene	ND		2.5	5	05/30/2014 18:07
1,3-Dichlorobenzene	ND		2.5	5	05/30/2014 18:07
1,4-Dichlorobenzene	ND		2.5	5	05/30/2014 18:07
Dichlorodifluoromethane	ND		2.5	5	05/30/2014 18:07
1,1-Dichloroethane	ND		2.5	5	05/30/2014 18:07
1,2-Dichloroethane (1,2-DCA)	9.7		2.5	5	05/30/2014 18:07
1,1-Dichloroethene	ND		2.5	5	05/30/2014 18:07
cis-1,2-Dichloroethene	ND		2.5	5	05/30/2014 18:07
trans-1,2-Dichloroethene	ND		2.5	5	05/30/2014 18:07
1,2-Dichloropropane	ND		2.5	5	05/30/2014 18:07
1,3-Dichloropropane	ND		2.5	5	05/30/2014 18:07
2,2-Dichloropropane	ND		2.5	5	05/30/2014 18:07
1,1-Dichloropropene	ND		2.5	5	05/30/2014 18:07

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-8	1405953-009A	Water	05/21/2014 07:50	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.5	5	05/30/2014 18:07
trans-1,3-Dichloropropene	ND		2.5	5	05/30/2014 18:07
Diisopropyl ether (DIPE)	ND		2.5	5	05/30/2014 18:07
Ethylbenzene	ND		2.5	5	05/30/2014 18:07
Ethyl tert-butyl ether (ETBE)	ND		2.5	5	05/30/2014 18:07
Freon 113	ND		2.5	5	05/30/2014 18:07
Hexachlorobutadiene	ND		2.5	5	05/30/2014 18:07
Hexachloroethane	ND		2.5	5	05/30/2014 18:07
2-Hexanone	ND		2.5	5	05/30/2014 18:07
Isopropylbenzene	ND		2.5	5	05/30/2014 18:07
4-Isopropyl toluene	ND		2.5	5	05/30/2014 18:07
Methyl-t-butyl ether (MTBE)	ND		2.5	5	05/30/2014 18:07
Methylene chloride	ND		2.5	5	05/30/2014 18:07
4-Methyl-2-pentanone (MIBK)	ND		2.5	5	05/30/2014 18:07
Naphthalene	ND		2.5	5	05/30/2014 18:07
n-Propyl benzene	ND		2.5	5	05/30/2014 18:07
Styrene	ND		2.5	5	05/30/2014 18:07
1,1,1,2-Tetrachloroethane	ND		2.5	5	05/30/2014 18:07
1,1,2,2-Tetrachloroethane	ND		2.5	5	05/30/2014 18:07
Tetrachloroethene	ND		2.5	5	05/30/2014 18:07
Toluene	ND		2.5	5	05/30/2014 18:07
1,2,3-Trichlorobenzene	ND		2.5	5	05/30/2014 18:07
1,2,4-Trichlorobenzene	ND		2.5	5	05/30/2014 18:07
1,1,1-Trichloroethane	ND		2.5	5	05/30/2014 18:07
1,1,2-Trichloroethane	ND		2.5	5	05/30/2014 18:07
Trichloroethene	ND		2.5	5	05/30/2014 18:07
Trichlorofluoromethane	ND		2.5	5	05/30/2014 18:07
1,2,3-Trichloropropane	ND		2.5	5	05/30/2014 18:07
1,2,4-Trimethylbenzene	ND		2.5	5	05/30/2014 18:07
1,3,5-Trimethylbenzene	ND		2.5	5	05/30/2014 18:07
Vinyl Chloride	ND		2.5	5	05/30/2014 18:07
Xylenes, Total	ND		2.5	5	05/30/2014 18:07
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		05/30/2014 18:07
Toluene-d8	96		70-130		05/30/2014 18:07
4-BFB	97		70-130		05/30/2014 18:07

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-16A	1405953-010A	Water	05/21/2014 08:50	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	5	05/31/2014 12:36
tert-Amyl methyl ether (TAME)	ND		2.5	5	05/31/2014 12:36
Benzene	5.3		2.5	5	05/31/2014 12:36
Bromobenzene	ND		2.5	5	05/31/2014 12:36
Bromochloromethane	ND		2.5	5	05/31/2014 12:36
Bromodichloromethane	ND		2.5	5	05/31/2014 12:36
Bromoform	ND		2.5	5	05/31/2014 12:36
Bromomethane	ND		2.5	5	05/31/2014 12:36
2-Butanone (MEK)	17		10	5	05/31/2014 12:36
t-Butyl alcohol (TBA)	27		10	5	05/31/2014 12:36
n-Butyl benzene	15		2.5	5	05/31/2014 12:36
sec-Butyl benzene	ND		2.5	5	05/31/2014 12:36
tert-Butyl benzene	ND		2.5	5	05/31/2014 12:36
Carbon Disulfide	ND		2.5	5	05/31/2014 12:36
Carbon Tetrachloride	ND		2.5	5	05/31/2014 12:36
Chlorobenzene	ND		2.5	5	05/31/2014 12:36
Chloroethane	ND		2.5	5	05/31/2014 12:36
Chloroform	ND		2.5	5	05/31/2014 12:36
Chloromethane	ND		2.5	5	05/31/2014 12:36
2-Chlorotoluene	ND		2.5	5	05/31/2014 12:36
4-Chlorotoluene	ND		2.5	5	05/31/2014 12:36
Dibromochloromethane	ND		2.5	5	05/31/2014 12:36
1,2-Dibromo-3-chloropropane	ND		1.0	5	05/31/2014 12:36
1,2-Dibromoethane (EDB)	ND		2.5	5	05/31/2014 12:36
Dibromomethane	ND		2.5	5	05/31/2014 12:36
1,2-Dichlorobenzene	ND		2.5	5	05/31/2014 12:36
1,3-Dichlorobenzene	ND		2.5	5	05/31/2014 12:36
1,4-Dichlorobenzene	ND		2.5	5	05/31/2014 12:36
Dichlorodifluoromethane	ND		2.5	5	05/31/2014 12:36
1,1-Dichloroethane	ND		2.5	5	05/31/2014 12:36
1,2-Dichloroethane (1,2-DCA)	ND		2.5	5	05/31/2014 12:36
1,1-Dichloroethene	ND		2.5	5	05/31/2014 12:36
cis-1,2-Dichloroethene	ND		2.5	5	05/31/2014 12:36
trans-1,2-Dichloroethene	ND		2.5	5	05/31/2014 12:36
1,2-Dichloropropane	ND		2.5	5	05/31/2014 12:36
1,3-Dichloropropane	ND		2.5	5	05/31/2014 12:36
2,2-Dichloropropane	ND		2.5	5	05/31/2014 12:36
1,1-Dichloropropene	ND		2.5	5	05/31/2014 12:36

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-16A	1405953-010A	Water	05/21/2014 08:50	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.5	5	05/31/2014 12:36
trans-1,3-Dichloropropene	ND		2.5	5	05/31/2014 12:36
Diisopropyl ether (DIPE)	ND		2.5	5	05/31/2014 12:36
Ethylbenzene	7.4		2.5	5	05/31/2014 12:36
Ethyl tert-butyl ether (ETBE)	ND		2.5	5	05/31/2014 12:36
Freon 113	ND		2.5	5	05/31/2014 12:36
Hexachlorobutadiene	ND		2.5	5	05/31/2014 12:36
Hexachloroethane	ND		2.5	5	05/31/2014 12:36
2-Hexanone	2.7		2.5	5	05/31/2014 12:36
Isopropylbenzene	ND		2.5	5	05/31/2014 12:36
4-Isopropyl toluene	ND		2.5	5	05/31/2014 12:36
Methyl-t-butyl ether (MTBE)	ND		2.5	5	05/31/2014 12:36
Methylene chloride	ND		2.5	5	05/31/2014 12:36
4-Methyl-2-pentanone (MIBK)	ND		2.5	5	05/31/2014 12:36
Naphthalene	11		2.5	5	05/31/2014 12:36
n-Propyl benzene	4.1		2.5	5	05/31/2014 12:36
Styrene	ND		2.5	5	05/31/2014 12:36
1,1,1,2-Tetrachloroethane	ND		2.5	5	05/31/2014 12:36
1,1,2,2-Tetrachloroethane	ND		2.5	5	05/31/2014 12:36
Tetrachloroethene	ND		2.5	5	05/31/2014 12:36
Toluene	3.7		2.5	5	05/31/2014 12:36
1,2,3-Trichlorobenzene	ND		2.5	5	05/31/2014 12:36
1,2,4-Trichlorobenzene	ND		2.5	5	05/31/2014 12:36
1,1,1-Trichloroethane	ND		2.5	5	05/31/2014 12:36
1,1,2-Trichloroethane	ND		2.5	5	05/31/2014 12:36
Trichloroethene	ND		2.5	5	05/31/2014 12:36
Trichlorofluoromethane	ND		2.5	5	05/31/2014 12:36
1,2,3-Trichloropropane	ND		2.5	5	05/31/2014 12:36
1,2,4-Trimethylbenzene	120		2.5	5	05/31/2014 12:36
1,3,5-Trimethylbenzene	45		2.5	5	05/31/2014 12:36
Vinyl Chloride	ND		2.5	5	05/31/2014 12:36
Xylenes, Total	31		2.5	5	05/31/2014 12:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	107		70-130		05/31/2014 12:36
Toluene-d8	99		70-130		05/31/2014 12:36
4-BFB	100		70-130		05/31/2014 12:36

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-16B	1405953-011A	Water	05/21/2014 11:15	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		5000	500	05/30/2014 14:06
tert-Amyl methyl ether (TAME)	ND		250	500	05/30/2014 14:06
Benzene	11,000		250	500	05/30/2014 14:06
Bromobenzene	ND		250	500	05/30/2014 14:06
Bromochloromethane	ND		250	500	05/30/2014 14:06
Bromodichloromethane	ND		250	500	05/30/2014 14:06
Bromoform	ND		250	500	05/30/2014 14:06
Bromomethane	ND		250	500	05/30/2014 14:06
2-Butanone (MEK)	ND		1000	500	05/30/2014 14:06
t-Butyl alcohol (TBA)	3400		1000	500	05/30/2014 14:06
n-Butyl benzene	ND		250	500	05/30/2014 14:06
sec-Butyl benzene	ND		250	500	05/30/2014 14:06
tert-Butyl benzene	ND		250	500	05/30/2014 14:06
Carbon Disulfide	ND		250	500	05/30/2014 14:06
Carbon Tetrachloride	ND		250	500	05/30/2014 14:06
Chlorobenzene	ND		250	500	05/30/2014 14:06
Chloroethane	ND		250	500	05/30/2014 14:06
Chloroform	ND		250	500	05/30/2014 14:06
Chloromethane	ND		250	500	05/30/2014 14:06
2-Chlorotoluene	ND		250	500	05/30/2014 14:06
4-Chlorotoluene	ND		250	500	05/30/2014 14:06
Dibromochloromethane	ND		250	500	05/30/2014 14:06
1,2-Dibromo-3-chloropropane	ND		100	500	05/30/2014 14:06
1,2-Dibromoethane (EDB)	ND		250	500	05/30/2014 14:06
Dibromomethane	ND		250	500	05/30/2014 14:06
1,2-Dichlorobenzene	ND		250	500	05/30/2014 14:06
1,3-Dichlorobenzene	ND		250	500	05/30/2014 14:06
1,4-Dichlorobenzene	ND		250	500	05/30/2014 14:06
Dichlorodifluoromethane	ND		250	500	05/30/2014 14:06
1,1-Dichloroethane	ND		250	500	05/30/2014 14:06
1,2-Dichloroethane (1,2-DCA)	ND		250	500	05/30/2014 14:06
1,1-Dichloroethene	ND		250	500	05/30/2014 14:06
cis-1,2-Dichloroethene	ND		250	500	05/30/2014 14:06
trans-1,2-Dichloroethene	ND		250	500	05/30/2014 14:06
1,2-Dichloropropane	ND		250	500	05/30/2014 14:06
1,3-Dichloropropane	ND		250	500	05/30/2014 14:06
2,2-Dichloropropane	ND		250	500	05/30/2014 14:06
1,1-Dichloropropene	ND		250	500	05/30/2014 14:06

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-16B	1405953-011A	Water	05/21/2014 11:15	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		250	500	05/30/2014 14:06
trans-1,3-Dichloropropene	ND		250	500	05/30/2014 14:06
Diisopropyl ether (DIPE)	ND		250	500	05/30/2014 14:06
Ethylbenzene	1000		250	500	05/30/2014 14:06
Ethyl tert-butyl ether (ETBE)	ND		250	500	05/30/2014 14:06
Freon 113	ND		250	500	05/30/2014 14:06
Hexachlorobutadiene	ND		250	500	05/30/2014 14:06
Hexachloroethane	ND		250	500	05/30/2014 14:06
2-Hexanone	ND		250	500	05/30/2014 14:06
Isopropylbenzene	ND		250	500	05/30/2014 14:06
4-Isopropyl toluene	ND		250	500	05/30/2014 14:06
Methyl-t-butyl ether (MTBE)	ND		250	500	05/30/2014 14:06
Methylene chloride	ND		250	500	05/30/2014 14:06
4-Methyl-2-pentanone (MIBK)	ND		250	500	05/30/2014 14:06
Naphthalene	ND		250	500	05/30/2014 14:06
n-Propyl benzene	ND		250	500	05/30/2014 14:06
Styrene	ND		250	500	05/30/2014 14:06
1,1,1,2-Tetrachloroethane	ND		250	500	05/30/2014 14:06
1,1,2,2-Tetrachloroethane	ND		250	500	05/30/2014 14:06
Tetrachloroethene	ND		250	500	05/30/2014 14:06
Toluene	710		250	500	05/30/2014 14:06
1,2,3-Trichlorobenzene	ND		250	500	05/30/2014 14:06
1,2,4-Trichlorobenzene	ND		250	500	05/30/2014 14:06
1,1,1-Trichloroethane	ND		250	500	05/30/2014 14:06
1,1,2-Trichloroethane	ND		250	500	05/30/2014 14:06
Trichloroethene	ND		250	500	05/30/2014 14:06
Trichlorofluoromethane	ND		250	500	05/30/2014 14:06
1,2,3-Trichloropropane	ND		250	500	05/30/2014 14:06
1,2,4-Trimethylbenzene	400		250	500	05/30/2014 14:06
1,3,5-Trimethylbenzene	ND		250	500	05/30/2014 14:06
Vinyl Chloride	ND		250	500	05/30/2014 14:06
Xylenes, Total	2000		250	500	05/30/2014 14:06
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	114		70-130		05/30/2014 14:06
Toluene-d8	97		70-130		05/30/2014 14:06
4-BFB	99		70-130		05/30/2014 14:06

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-15	1405953-012A	Water	05/21/2014 09:45	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		330	33	05/30/2014 22:38
tert-Amyl methyl ether (TAME)	ND		17	33	05/30/2014 22:38
Benzene	430		17	33	05/30/2014 22:38
Bromobenzene	ND		17	33	05/30/2014 22:38
Bromochloromethane	ND		17	33	05/30/2014 22:38
Bromodichloromethane	ND		17	33	05/30/2014 22:38
Bromoform	ND		17	33	05/30/2014 22:38
Bromomethane	ND		17	33	05/30/2014 22:38
2-Butanone (MEK)	ND		67	33	05/30/2014 22:38
t-Butyl alcohol (TBA)	ND		67	33	05/30/2014 22:38
n-Butyl benzene	ND		17	33	05/30/2014 22:38
sec-Butyl benzene	ND		17	33	05/30/2014 22:38
tert-Butyl benzene	ND		17	33	05/30/2014 22:38
Carbon Disulfide	ND		17	33	05/30/2014 22:38
Carbon Tetrachloride	ND		17	33	05/30/2014 22:38
Chlorobenzene	ND		17	33	05/30/2014 22:38
Chloroethane	ND		17	33	05/30/2014 22:38
Chloroform	ND		17	33	05/30/2014 22:38
Chloromethane	ND		17	33	05/30/2014 22:38
2-Chlorotoluene	ND		17	33	05/30/2014 22:38
4-Chlorotoluene	ND		17	33	05/30/2014 22:38
Dibromochloromethane	ND		17	33	05/30/2014 22:38
1,2-Dibromo-3-chloropropane	ND		6.7	33	05/30/2014 22:38
1,2-Dibromoethane (EDB)	ND		17	33	05/30/2014 22:38
Dibromomethane	ND		17	33	05/30/2014 22:38
1,2-Dichlorobenzene	ND		17	33	05/30/2014 22:38
1,3-Dichlorobenzene	ND		17	33	05/30/2014 22:38
1,4-Dichlorobenzene	ND		17	33	05/30/2014 22:38
Dichlorodifluoromethane	ND		17	33	05/30/2014 22:38
1,1-Dichloroethane	ND		17	33	05/30/2014 22:38
1,2-Dichloroethane (1,2-DCA)	ND		17	33	05/30/2014 22:38
1,1-Dichloroethene	ND		17	33	05/30/2014 22:38
cis-1,2-Dichloroethene	ND		17	33	05/30/2014 22:38
trans-1,2-Dichloroethene	ND		17	33	05/30/2014 22:38
1,2-Dichloropropane	ND		17	33	05/30/2014 22:38
1,3-Dichloropropane	ND		17	33	05/30/2014 22:38
2,2-Dichloropropane	ND		17	33	05/30/2014 22:38
1,1-Dichloropropene	ND		17	33	05/30/2014 22:38

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-15	1405953-012A	Water	05/21/2014 09:45	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		17	33	05/30/2014 22:38
trans-1,3-Dichloropropene	ND		17	33	05/30/2014 22:38
Diisopropyl ether (DIPE)	ND		17	33	05/30/2014 22:38
Ethylbenzene	220		17	33	05/30/2014 22:38
Ethyl tert-butyl ether (ETBE)	ND		17	33	05/30/2014 22:38
Freon 113	ND		17	33	05/30/2014 22:38
Hexachlorobutadiene	ND		17	33	05/30/2014 22:38
Hexachloroethane	ND		17	33	05/30/2014 22:38
2-Hexanone	ND		17	33	05/30/2014 22:38
Isopropylbenzene	20		17	33	05/30/2014 22:38
4-Isopropyl toluene	ND		17	33	05/30/2014 22:38
Methyl-t-butyl ether (MTBE)	ND		17	33	05/30/2014 22:38
Methylene chloride	ND		17	33	05/30/2014 22:38
4-Methyl-2-pentanone (MIBK)	ND		17	33	05/30/2014 22:38
Naphthalene	130		17	33	05/30/2014 22:38
n-Propyl benzene	28		17	33	05/30/2014 22:38
Styrene	ND		17	33	05/30/2014 22:38
1,1,1,2-Tetrachloroethane	ND		17	33	05/30/2014 22:38
1,1,2,2-Tetrachloroethane	ND		17	33	05/30/2014 22:38
Tetrachloroethene	ND		17	33	05/30/2014 22:38
Toluene	19		17	33	05/30/2014 22:38
1,2,3-Trichlorobenzene	ND		17	33	05/30/2014 22:38
1,2,4-Trichlorobenzene	ND		17	33	05/30/2014 22:38
1,1,1-Trichloroethane	ND		17	33	05/30/2014 22:38
1,1,2-Trichloroethane	ND		17	33	05/30/2014 22:38
Trichloroethene	ND		17	33	05/30/2014 22:38
Trichlorofluoromethane	ND		17	33	05/30/2014 22:38
1,2,3-Trichloropropane	ND		17	33	05/30/2014 22:38
1,2,4-Trimethylbenzene	230		17	33	05/30/2014 22:38
1,3,5-Trimethylbenzene	75		17	33	05/30/2014 22:38
Vinyl Chloride	ND		17	33	05/30/2014 22:38
Xylenes, Total	250		17	33	05/30/2014 22:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	113		70-130		05/30/2014 22:38
Toluene-d8	97		70-130		05/30/2014 22:38
4-BFB	100		70-130		05/30/2014 22:38

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-17A	1405953-013A	Water	05/21/2014 10:30	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		1000	100	05/30/2014 04:48
tert-Amyl methyl ether (TAME)	ND		50	100	05/30/2014 04:48
Benzene	1900		50	100	05/30/2014 04:48
Bromobenzene	ND		50	100	05/30/2014 04:48
Bromochloromethane	ND		50	100	05/30/2014 04:48
Bromodichloromethane	ND		50	100	05/30/2014 04:48
Bromoform	ND		50	100	05/30/2014 04:48
Bromomethane	ND		50	100	05/30/2014 04:48
2-Butanone (MEK)	ND		200	100	05/30/2014 04:48
t-Butyl alcohol (TBA)	ND		200	100	05/30/2014 04:48
n-Butyl benzene	ND		50	100	05/30/2014 04:48
sec-Butyl benzene	ND		50	100	05/30/2014 04:48
tert-Butyl benzene	ND		50	100	05/30/2014 04:48
Carbon Disulfide	ND		50	100	05/30/2014 04:48
Carbon Tetrachloride	ND		50	100	05/30/2014 04:48
Chlorobenzene	ND		50	100	05/30/2014 04:48
Chloroethane	ND		50	100	05/30/2014 04:48
Chloroform	ND		50	100	05/30/2014 04:48
Chloromethane	ND		50	100	05/30/2014 04:48
2-Chlorotoluene	ND		50	100	05/30/2014 04:48
4-Chlorotoluene	ND		50	100	05/30/2014 04:48
Dibromochloromethane	ND		50	100	05/30/2014 04:48
1,2-Dibromo-3-chloropropane	ND		20	100	05/30/2014 04:48
1,2-Dibromoethane (EDB)	ND		50	100	05/30/2014 04:48
Dibromomethane	ND		50	100	05/30/2014 04:48
1,2-Dichlorobenzene	ND		50	100	05/30/2014 04:48
1,3-Dichlorobenzene	ND		50	100	05/30/2014 04:48
1,4-Dichlorobenzene	ND		50	100	05/30/2014 04:48
Dichlorodifluoromethane	ND		50	100	05/30/2014 04:48
1,1-Dichloroethane	ND		50	100	05/30/2014 04:48
1,2-Dichloroethane (1,2-DCA)	ND		50	100	05/30/2014 04:48
1,1-Dichloroethene	ND		50	100	05/30/2014 04:48
cis-1,2-Dichloroethene	ND		50	100	05/30/2014 04:48
trans-1,2-Dichloroethene	ND		50	100	05/30/2014 04:48
1,2-Dichloropropane	ND		50	100	05/30/2014 04:48
1,3-Dichloropropane	ND		50	100	05/30/2014 04:48
2,2-Dichloropropane	ND		50	100	05/30/2014 04:48
1,1-Dichloropropene	ND		50	100	05/30/2014 04:48

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-17A	1405953-013A	Water	05/21/2014 10:30	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		50	100	05/30/2014 04:48
trans-1,3-Dichloropropene	ND		50	100	05/30/2014 04:48
Diisopropyl ether (DIPE)	ND		50	100	05/30/2014 04:48
Ethylbenzene	970		50	100	05/30/2014 04:48
Ethyl tert-butyl ether (ETBE)	ND		50	100	05/30/2014 04:48
Freon 113	ND		50	100	05/30/2014 04:48
Hexachlorobutadiene	ND		50	100	05/30/2014 04:48
Hexachloroethane	ND		50	100	05/30/2014 04:48
2-Hexanone	ND		50	100	05/30/2014 04:48
Isopropylbenzene	70		50	100	05/30/2014 04:48
4-Isopropyl toluene	ND		50	100	05/30/2014 04:48
Methyl-t-butyl ether (MTBE)	ND		50	100	05/30/2014 04:48
Methylene chloride	ND		50	100	05/30/2014 04:48
4-Methyl-2-pentanone (MIBK)	ND		50	100	05/30/2014 04:48
Naphthalene	830		50	100	05/30/2014 04:48
n-Propyl benzene	130		50	100	05/30/2014 04:48
Styrene	ND		50	100	05/30/2014 04:48
1,1,1,2-Tetrachloroethane	ND		50	100	05/30/2014 04:48
1,1,2,2-Tetrachloroethane	ND		50	100	05/30/2014 04:48
Tetrachloroethene	ND		50	100	05/30/2014 04:48
Toluene	3500		50	100	05/30/2014 04:48
1,2,3-Trichlorobenzene	ND		50	100	05/30/2014 04:48
1,2,4-Trichlorobenzene	ND		50	100	05/30/2014 04:48
1,1,1-Trichloroethane	ND		50	100	05/30/2014 04:48
1,1,2-Trichloroethane	ND		50	100	05/30/2014 04:48
Trichloroethene	ND		50	100	05/30/2014 04:48
Trichlorofluoromethane	ND		50	100	05/30/2014 04:48
1,2,3-Trichloropropane	ND		50	100	05/30/2014 04:48
1,2,4-Trimethylbenzene	2200		50	100	05/30/2014 04:48
1,3,5-Trimethylbenzene	570		50	100	05/30/2014 04:48
Vinyl Chloride	ND		50	100	05/30/2014 04:48
Xylenes, Total	10,000		50	100	05/30/2014 04:48
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	110		70-130		05/30/2014 04:48
Toluene-d8	97		70-130		05/30/2014 04:48
4-BFB	99		70-130		05/30/2014 04:48

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-17B	1405953-014A	Water	05/21/2014 10:50	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/29/2014 23:17
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/29/2014 23:17
Benzene	ND		0.50	1	05/29/2014 23:17
Bromobenzene	ND		0.50	1	05/29/2014 23:17
Bromochloromethane	ND		0.50	1	05/29/2014 23:17
Bromodichloromethane	ND		0.50	1	05/29/2014 23:17
Bromoform	ND		0.50	1	05/29/2014 23:17
Bromomethane	ND		0.50	1	05/29/2014 23:17
2-Butanone (MEK)	ND		2.0	1	05/29/2014 23:17
t-Butyl alcohol (TBA)	ND		2.0	1	05/29/2014 23:17
n-Butyl benzene	ND		0.50	1	05/29/2014 23:17
sec-Butyl benzene	ND		0.50	1	05/29/2014 23:17
tert-Butyl benzene	ND		0.50	1	05/29/2014 23:17
Carbon Disulfide	ND		0.50	1	05/29/2014 23:17
Carbon Tetrachloride	ND		0.50	1	05/29/2014 23:17
Chlorobenzene	ND		0.50	1	05/29/2014 23:17
Chloroethane	ND		0.50	1	05/29/2014 23:17
Chloroform	ND		0.50	1	05/29/2014 23:17
Chloromethane	ND		0.50	1	05/29/2014 23:17
2-Chlorotoluene	ND		0.50	1	05/29/2014 23:17
4-Chlorotoluene	ND		0.50	1	05/29/2014 23:17
Dibromochloromethane	ND		0.50	1	05/29/2014 23:17
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/29/2014 23:17
1,2-Dibromoethane (EDB)	ND		0.50	1	05/29/2014 23:17
Dibromomethane	ND		0.50	1	05/29/2014 23:17
1,2-Dichlorobenzene	ND		0.50	1	05/29/2014 23:17
1,3-Dichlorobenzene	ND		0.50	1	05/29/2014 23:17
1,4-Dichlorobenzene	ND		0.50	1	05/29/2014 23:17
Dichlorodifluoromethane	ND		0.50	1	05/29/2014 23:17
1,1-Dichloroethane	ND		0.50	1	05/29/2014 23:17
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/29/2014 23:17
1,1-Dichloroethene	ND		0.50	1	05/29/2014 23:17
cis-1,2-Dichloroethene	ND		0.50	1	05/29/2014 23:17
trans-1,2-Dichloroethene	ND		0.50	1	05/29/2014 23:17
1,2-Dichloropropane	ND		0.50	1	05/29/2014 23:17
1,3-Dichloropropane	ND		0.50	1	05/29/2014 23:17
2,2-Dichloropropane	ND		0.50	1	05/29/2014 23:17
1,1-Dichloropropene	ND		0.50	1	05/29/2014 23:17

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-17B	1405953-014A	Water	05/21/2014 10:50	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/29/2014 23:17
trans-1,3-Dichloropropene	ND		0.50	1	05/29/2014 23:17
Diisopropyl ether (DIPE)	ND		0.50	1	05/29/2014 23:17
Ethylbenzene	ND		0.50	1	05/29/2014 23:17
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/29/2014 23:17
Freon 113	ND		0.50	1	05/29/2014 23:17
Hexachlorobutadiene	ND		0.50	1	05/29/2014 23:17
Hexachloroethane	ND		0.50	1	05/29/2014 23:17
2-Hexanone	ND		0.50	1	05/29/2014 23:17
Isopropylbenzene	ND		0.50	1	05/29/2014 23:17
4-Isopropyl toluene	ND		0.50	1	05/29/2014 23:17
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/29/2014 23:17
Methylene chloride	ND		0.50	1	05/29/2014 23:17
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/29/2014 23:17
Naphthalene	ND		0.50	1	05/29/2014 23:17
n-Propyl benzene	ND		0.50	1	05/29/2014 23:17
Styrene	ND		0.50	1	05/29/2014 23:17
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/29/2014 23:17
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/29/2014 23:17
Tetrachloroethene	ND		0.50	1	05/29/2014 23:17
Toluene	ND		0.50	1	05/29/2014 23:17
1,2,3-Trichlorobenzene	ND		0.50	1	05/29/2014 23:17
1,2,4-Trichlorobenzene	ND		0.50	1	05/29/2014 23:17
1,1,1-Trichloroethane	ND		0.50	1	05/29/2014 23:17
1,1,2-Trichloroethane	ND		0.50	1	05/29/2014 23:17
Trichloroethene	ND		0.50	1	05/29/2014 23:17
Trichlorofluoromethane	ND		0.50	1	05/29/2014 23:17
1,2,3-Trichloropropane	ND		0.50	1	05/29/2014 23:17
1,2,4-Trimethylbenzene	ND		0.50	1	05/29/2014 23:17
1,3,5-Trimethylbenzene	ND		0.50	1	05/29/2014 23:17
Vinyl Chloride	ND		0.50	1	05/29/2014 23:17
Xylenes, Total	1.1		0.50	1	05/29/2014 23:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	101		70-130		05/29/2014 23:17
Toluene-d8	100		70-130		05/29/2014 23:17
4-BFB	100		70-130		05/29/2014 23:17

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-5	1405953-015A	Water	05/21/2014 14:05	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		1000	100	05/30/2014 05:06
tert-Amyl methyl ether (TAME)	ND		50	100	05/30/2014 05:06
Benzene	880		50	100	05/30/2014 05:06
Bromobenzene	ND		50	100	05/30/2014 05:06
Bromochloromethane	ND		50	100	05/30/2014 05:06
Bromodichloromethane	ND		50	100	05/30/2014 05:06
Bromoform	ND		50	100	05/30/2014 05:06
Bromomethane	ND		50	100	05/30/2014 05:06
2-Butanone (MEK)	ND		200	100	05/30/2014 05:06
t-Butyl alcohol (TBA)	ND		200	100	05/30/2014 05:06
n-Butyl benzene	ND		50	100	05/30/2014 05:06
sec-Butyl benzene	ND		50	100	05/30/2014 05:06
tert-Butyl benzene	ND		50	100	05/30/2014 05:06
Carbon Disulfide	ND		50	100	05/30/2014 05:06
Carbon Tetrachloride	ND		50	100	05/30/2014 05:06
Chlorobenzene	ND		50	100	05/30/2014 05:06
Chloroethane	ND		50	100	05/30/2014 05:06
Chloroform	ND		50	100	05/30/2014 05:06
Chloromethane	ND		50	100	05/30/2014 05:06
2-Chlorotoluene	ND		50	100	05/30/2014 05:06
4-Chlorotoluene	ND		50	100	05/30/2014 05:06
Dibromochloromethane	ND		50	100	05/30/2014 05:06
1,2-Dibromo-3-chloropropane	ND		20	100	05/30/2014 05:06
1,2-Dibromoethane (EDB)	ND		50	100	05/30/2014 05:06
Dibromomethane	ND		50	100	05/30/2014 05:06
1,2-Dichlorobenzene	ND		50	100	05/30/2014 05:06
1,3-Dichlorobenzene	ND		50	100	05/30/2014 05:06
1,4-Dichlorobenzene	ND		50	100	05/30/2014 05:06
Dichlorodifluoromethane	ND		50	100	05/30/2014 05:06
1,1-Dichloroethane	ND		50	100	05/30/2014 05:06
1,2-Dichloroethane (1,2-DCA)	ND		50	100	05/30/2014 05:06
1,1-Dichloroethene	ND		50	100	05/30/2014 05:06
cis-1,2-Dichloroethene	ND		50	100	05/30/2014 05:06
trans-1,2-Dichloroethene	ND		50	100	05/30/2014 05:06
1,2-Dichloropropane	ND		50	100	05/30/2014 05:06
1,3-Dichloropropane	ND		50	100	05/30/2014 05:06
2,2-Dichloropropane	ND		50	100	05/30/2014 05:06
1,1-Dichloropropene	ND		50	100	05/30/2014 05:06

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-5	1405953-015A	Water	05/21/2014 14:05	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		50	100	05/30/2014 05:06
trans-1,3-Dichloropropene	ND		50	100	05/30/2014 05:06
Diisopropyl ether (DIPE)	ND		50	100	05/30/2014 05:06
Ethylbenzene	520		50	100	05/30/2014 05:06
Ethyl tert-butyl ether (ETBE)	ND		50	100	05/30/2014 05:06
Freon 113	ND		50	100	05/30/2014 05:06
Hexachlorobutadiene	ND		50	100	05/30/2014 05:06
Hexachloroethane	ND		50	100	05/30/2014 05:06
2-Hexanone	ND		50	100	05/30/2014 05:06
Isopropylbenzene	57		50	100	05/30/2014 05:06
4-Isopropyl toluene	ND		50	100	05/30/2014 05:06
Methyl-t-butyl ether (MTBE)	ND		50	100	05/30/2014 05:06
Methylene chloride	ND		50	100	05/30/2014 05:06
4-Methyl-2-pentanone (MIBK)	ND		50	100	05/30/2014 05:06
Naphthalene	250		50	100	05/30/2014 05:06
n-Propyl benzene	120		50	100	05/30/2014 05:06
Styrene	ND		50	100	05/30/2014 05:06
1,1,1,2-Tetrachloroethane	ND		50	100	05/30/2014 05:06
1,1,2,2-Tetrachloroethane	ND		50	100	05/30/2014 05:06
Tetrachloroethene	ND		50	100	05/30/2014 05:06
Toluene	440		50	100	05/30/2014 05:06
1,2,3-Trichlorobenzene	ND		50	100	05/30/2014 05:06
1,2,4-Trichlorobenzene	ND		50	100	05/30/2014 05:06
1,1,1-Trichloroethane	ND		50	100	05/30/2014 05:06
1,1,2-Trichloroethane	ND		50	100	05/30/2014 05:06
Trichloroethene	ND		50	100	05/30/2014 05:06
Trichlorofluoromethane	ND		50	100	05/30/2014 05:06
1,2,3-Trichloropropane	ND		50	100	05/30/2014 05:06
1,2,4-Trimethylbenzene	690		50	100	05/30/2014 05:06
1,3,5-Trimethylbenzene	120		50	100	05/30/2014 05:06
Vinyl Chloride	ND		50	100	05/30/2014 05:06
Xylenes, Total	2200		50	100	05/30/2014 05:06
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		05/30/2014 05:06
Toluene-d8	102		70-130		05/30/2014 05:06
4-BFB	100		70-130		05/30/2014 05:06

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1405953-016A	Water	05/21/2014 14:25	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		5000	500	05/30/2014 23:16
tert-Amyl methyl ether (TAME)	ND		250	500	05/30/2014 23:16
Benzene	4300		250	500	05/30/2014 23:16
Bromobenzene	ND		250	500	05/30/2014 23:16
Bromochloromethane	ND		250	500	05/30/2014 23:16
Bromodichloromethane	ND		250	500	05/30/2014 23:16
Bromoform	ND		250	500	05/30/2014 23:16
Bromomethane	ND		250	500	05/30/2014 23:16
2-Butanone (MEK)	ND		1000	500	05/30/2014 23:16
t-Butyl alcohol (TBA)	ND		1000	500	05/30/2014 23:16
n-Butyl benzene	ND		250	500	05/30/2014 23:16
sec-Butyl benzene	ND		250	500	05/30/2014 23:16
tert-Butyl benzene	ND		250	500	05/30/2014 23:16
Carbon Disulfide	ND		250	500	05/30/2014 23:16
Carbon Tetrachloride	ND		250	500	05/30/2014 23:16
Chlorobenzene	ND		250	500	05/30/2014 23:16
Chloroethane	ND		250	500	05/30/2014 23:16
Chloroform	ND		250	500	05/30/2014 23:16
Chloromethane	ND		250	500	05/30/2014 23:16
2-Chlorotoluene	ND		250	500	05/30/2014 23:16
4-Chlorotoluene	ND		250	500	05/30/2014 23:16
Dibromochloromethane	ND		250	500	05/30/2014 23:16
1,2-Dibromo-3-chloropropane	ND		100	500	05/30/2014 23:16
1,2-Dibromoethane (EDB)	ND		250	500	05/30/2014 23:16
Dibromomethane	ND		250	500	05/30/2014 23:16
1,2-Dichlorobenzene	ND		250	500	05/30/2014 23:16
1,3-Dichlorobenzene	ND		250	500	05/30/2014 23:16
1,4-Dichlorobenzene	ND		250	500	05/30/2014 23:16
Dichlorodifluoromethane	ND		250	500	05/30/2014 23:16
1,1-Dichloroethane	ND		250	500	05/30/2014 23:16
1,2-Dichloroethane (1,2-DCA)	ND		250	500	05/30/2014 23:16
1,1-Dichloroethene	ND		250	500	05/30/2014 23:16
cis-1,2-Dichloroethene	ND		250	500	05/30/2014 23:16
trans-1,2-Dichloroethene	ND		250	500	05/30/2014 23:16
1,2-Dichloropropane	ND		250	500	05/30/2014 23:16
1,3-Dichloropropane	ND		250	500	05/30/2014 23:16
2,2-Dichloropropane	ND		250	500	05/30/2014 23:16
1,1-Dichloropropene	ND		250	500	05/30/2014 23:16

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1405953-016A	Water	05/21/2014 14:25	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		250	500	05/30/2014 23:16
trans-1,3-Dichloropropene	ND		250	500	05/30/2014 23:16
Diisopropyl ether (DIPE)	ND		250	500	05/30/2014 23:16
Ethylbenzene	600		250	500	05/30/2014 23:16
Ethyl tert-butyl ether (ETBE)	ND		250	500	05/30/2014 23:16
Freon 113	ND		250	500	05/30/2014 23:16
Hexachlorobutadiene	ND		250	500	05/30/2014 23:16
Hexachloroethane	ND		250	500	05/30/2014 23:16
2-Hexanone	ND		250	500	05/30/2014 23:16
Isopropylbenzene	ND		250	500	05/30/2014 23:16
4-Isopropyl toluene	ND		250	500	05/30/2014 23:16
Methyl-t-butyl ether (MTBE)	ND		250	500	05/30/2014 23:16
Methylene chloride	ND		250	500	05/30/2014 23:16
4-Methyl-2-pentanone (MIBK)	ND		250	500	05/30/2014 23:16
Naphthalene	780		250	500	05/30/2014 23:16
n-Propyl benzene	ND		250	500	05/30/2014 23:16
Styrene	ND		250	500	05/30/2014 23:16
1,1,1,2-Tetrachloroethane	ND		250	500	05/30/2014 23:16
1,1,2,2-Tetrachloroethane	ND		250	500	05/30/2014 23:16
Tetrachloroethene	ND		250	500	05/30/2014 23:16
Toluene	6400		250	500	05/30/2014 23:16
1,2,3-Trichlorobenzene	ND		250	500	05/30/2014 23:16
1,2,4-Trichlorobenzene	ND		250	500	05/30/2014 23:16
1,1,1-Trichloroethane	ND		250	500	05/30/2014 23:16
1,1,2-Trichloroethane	ND		250	500	05/30/2014 23:16
Trichloroethene	ND		250	500	05/30/2014 23:16
Trichlorofluoromethane	ND		250	500	05/30/2014 23:16
1,2,3-Trichloropropane	ND		250	500	05/30/2014 23:16
1,2,4-Trimethylbenzene	2400		250	500	05/30/2014 23:16
1,3,5-Trimethylbenzene	690		250	500	05/30/2014 23:16
Vinyl Chloride	ND		250	500	05/30/2014 23:16
Xylenes, Total	10,000		250	500	05/30/2014 23:16
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	113		70-130		05/30/2014 23:16
Toluene-d8	97		70-130		05/30/2014 23:16
4-BFB	98		70-130		05/30/2014 23:16

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-4	1405953-017A	Water	05/21/2014 15:01	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		330	33	05/30/2014 23:55
tert-Amyl methyl ether (TAME)	ND		17	33	05/30/2014 23:55
Benzene	200		17	33	05/30/2014 23:55
Bromobenzene	ND		17	33	05/30/2014 23:55
Bromochloromethane	ND		17	33	05/30/2014 23:55
Bromodichloromethane	ND		17	33	05/30/2014 23:55
Bromoform	ND		17	33	05/30/2014 23:55
Bromomethane	ND		17	33	05/30/2014 23:55
2-Butanone (MEK)	ND		67	33	05/30/2014 23:55
t-Butyl alcohol (TBA)	ND		67	33	05/30/2014 23:55
n-Butyl benzene	20		17	33	05/30/2014 23:55
sec-Butyl benzene	ND		17	33	05/30/2014 23:55
tert-Butyl benzene	ND		17	33	05/30/2014 23:55
Carbon Disulfide	ND		17	33	05/30/2014 23:55
Carbon Tetrachloride	ND		17	33	05/30/2014 23:55
Chlorobenzene	ND		17	33	05/30/2014 23:55
Chloroethane	ND		17	33	05/30/2014 23:55
Chloroform	ND		17	33	05/30/2014 23:55
Chloromethane	ND		17	33	05/30/2014 23:55
2-Chlorotoluene	ND		17	33	05/30/2014 23:55
4-Chlorotoluene	ND		17	33	05/30/2014 23:55
Dibromochloromethane	ND		17	33	05/30/2014 23:55
1,2-Dibromo-3-chloropropane	ND		6.7	33	05/30/2014 23:55
1,2-Dibromoethane (EDB)	ND		17	33	05/30/2014 23:55
Dibromomethane	ND		17	33	05/30/2014 23:55
1,2-Dichlorobenzene	ND		17	33	05/30/2014 23:55
1,3-Dichlorobenzene	ND		17	33	05/30/2014 23:55
1,4-Dichlorobenzene	ND		17	33	05/30/2014 23:55
Dichlorodifluoromethane	ND		17	33	05/30/2014 23:55
1,1-Dichloroethane	ND		17	33	05/30/2014 23:55
1,2-Dichloroethane (1,2-DCA)	ND		17	33	05/30/2014 23:55
1,1-Dichloroethene	ND		17	33	05/30/2014 23:55
cis-1,2-Dichloroethene	ND		17	33	05/30/2014 23:55
trans-1,2-Dichloroethene	ND		17	33	05/30/2014 23:55
1,2-Dichloropropane	ND		17	33	05/30/2014 23:55
1,3-Dichloropropane	ND		17	33	05/30/2014 23:55
2,2-Dichloropropane	ND		17	33	05/30/2014 23:55
1,1-Dichloropropene	ND		17	33	05/30/2014 23:55

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
RW-4	1405953-017A	Water	05/21/2014 15:01	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		17	33	05/30/2014 23:55
trans-1,3-Dichloropropene	ND		17	33	05/30/2014 23:55
Diisopropyl ether (DIPE)	ND		17	33	05/30/2014 23:55
Ethylbenzene	310		17	33	05/30/2014 23:55
Ethyl tert-butyl ether (ETBE)	ND		17	33	05/30/2014 23:55
Freon 113	ND		17	33	05/30/2014 23:55
Hexachlorobutadiene	ND		17	33	05/30/2014 23:55
Hexachloroethane	ND		17	33	05/30/2014 23:55
2-Hexanone	ND		17	33	05/30/2014 23:55
Isopropylbenzene	27		17	33	05/30/2014 23:55
4-Isopropyl toluene	ND		17	33	05/30/2014 23:55
Methyl-t-butyl ether (MTBE)	ND		17	33	05/30/2014 23:55
Methylene chloride	ND		17	33	05/30/2014 23:55
4-Methyl-2-pentanone (MIBK)	ND		17	33	05/30/2014 23:55
Naphthalene	170		17	33	05/30/2014 23:55
n-Propyl benzene	71		17	33	05/30/2014 23:55
Styrene	ND		17	33	05/30/2014 23:55
1,1,1,2-Tetrachloroethane	ND		17	33	05/30/2014 23:55
1,1,2,2-Tetrachloroethane	ND		17	33	05/30/2014 23:55
Tetrachloroethene	ND		17	33	05/30/2014 23:55
Toluene	670		17	33	05/30/2014 23:55
1,2,3-Trichlorobenzene	ND		17	33	05/30/2014 23:55
1,2,4-Trichlorobenzene	ND		17	33	05/30/2014 23:55
1,1,1-Trichloroethane	ND		17	33	05/30/2014 23:55
1,1,2-Trichloroethane	ND		17	33	05/30/2014 23:55
Trichloroethene	ND		17	33	05/30/2014 23:55
Trichlorofluoromethane	ND		17	33	05/30/2014 23:55
1,2,3-Trichloropropane	ND		17	33	05/30/2014 23:55
1,2,4-Trimethylbenzene	610		17	33	05/30/2014 23:55
1,3,5-Trimethylbenzene	140		17	33	05/30/2014 23:55
Vinyl Chloride	ND		17	33	05/30/2014 23:55
Xylenes, Total	1700		17	33	05/30/2014 23:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	112		70-130		05/30/2014 23:55
Toluene-d8	96		70-130		05/30/2014 23:55
4-BFB	98		70-130		05/30/2014 23:55

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-3	1405953-018A	Water	05/22/2014 06:30	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/29/2014 23:56
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/29/2014 23:56
Benzene	ND		0.50	1	05/29/2014 23:56
Bromobenzene	ND		0.50	1	05/29/2014 23:56
Bromochloromethane	ND		0.50	1	05/29/2014 23:56
Bromodichloromethane	ND		0.50	1	05/29/2014 23:56
Bromoform	ND		0.50	1	05/29/2014 23:56
Bromomethane	ND		0.50	1	05/29/2014 23:56
2-Butanone (MEK)	ND		2.0	1	05/29/2014 23:56
t-Butyl alcohol (TBA)	ND		2.0	1	05/29/2014 23:56
n-Butyl benzene	ND		0.50	1	05/29/2014 23:56
sec-Butyl benzene	ND		0.50	1	05/29/2014 23:56
tert-Butyl benzene	ND		0.50	1	05/29/2014 23:56
Carbon Disulfide	ND		0.50	1	05/29/2014 23:56
Carbon Tetrachloride	ND		0.50	1	05/29/2014 23:56
Chlorobenzene	ND		0.50	1	05/29/2014 23:56
Chloroethane	ND		0.50	1	05/29/2014 23:56
Chloroform	ND		0.50	1	05/29/2014 23:56
Chloromethane	ND		0.50	1	05/29/2014 23:56
2-Chlorotoluene	ND		0.50	1	05/29/2014 23:56
4-Chlorotoluene	ND		0.50	1	05/29/2014 23:56
Dibromochloromethane	ND		0.50	1	05/29/2014 23:56
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/29/2014 23:56
1,2-Dibromoethane (EDB)	ND		0.50	1	05/29/2014 23:56
Dibromomethane	ND		0.50	1	05/29/2014 23:56
1,2-Dichlorobenzene	ND		0.50	1	05/29/2014 23:56
1,3-Dichlorobenzene	ND		0.50	1	05/29/2014 23:56
1,4-Dichlorobenzene	ND		0.50	1	05/29/2014 23:56
Dichlorodifluoromethane	ND		0.50	1	05/29/2014 23:56
1,1-Dichloroethane	ND		0.50	1	05/29/2014 23:56
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/29/2014 23:56
1,1-Dichloroethene	ND		0.50	1	05/29/2014 23:56
cis-1,2-Dichloroethene	ND		0.50	1	05/29/2014 23:56
trans-1,2-Dichloroethene	ND		0.50	1	05/29/2014 23:56
1,2-Dichloropropane	ND		0.50	1	05/29/2014 23:56
1,3-Dichloropropane	ND		0.50	1	05/29/2014 23:56
2,2-Dichloropropane	ND		0.50	1	05/29/2014 23:56
1,1-Dichloropropene	ND		0.50	1	05/29/2014 23:56

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
TB-3	1405953-018A	Water	05/22/2014 06:30	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/29/2014 23:56
trans-1,3-Dichloropropene	ND		0.50	1	05/29/2014 23:56
Diisopropyl ether (DIPE)	ND		0.50	1	05/29/2014 23:56
Ethylbenzene	ND		0.50	1	05/29/2014 23:56
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/29/2014 23:56
Freon 113	ND		0.50	1	05/29/2014 23:56
Hexachlorobutadiene	ND		0.50	1	05/29/2014 23:56
Hexachloroethane	ND		0.50	1	05/29/2014 23:56
2-Hexanone	ND		0.50	1	05/29/2014 23:56
Isopropylbenzene	ND		0.50	1	05/29/2014 23:56
4-Isopropyl toluene	ND		0.50	1	05/29/2014 23:56
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/29/2014 23:56
Methylene chloride	ND		0.50	1	05/29/2014 23:56
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/29/2014 23:56
Naphthalene	ND		0.50	1	05/29/2014 23:56
n-Propyl benzene	ND		0.50	1	05/29/2014 23:56
Styrene	ND		0.50	1	05/29/2014 23:56
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/29/2014 23:56
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/29/2014 23:56
Tetrachloroethene	ND		0.50	1	05/29/2014 23:56
Toluene	ND		0.50	1	05/29/2014 23:56
1,2,3-Trichlorobenzene	ND		0.50	1	05/29/2014 23:56
1,2,4-Trichlorobenzene	ND		0.50	1	05/29/2014 23:56
1,1,1-Trichloroethane	ND		0.50	1	05/29/2014 23:56
1,1,2-Trichloroethane	ND		0.50	1	05/29/2014 23:56
Trichloroethene	ND		0.50	1	05/29/2014 23:56
Trichlorofluoromethane	ND		0.50	1	05/29/2014 23:56
1,2,3-Trichloropropane	ND		0.50	1	05/29/2014 23:56
1,2,4-Trimethylbenzene	ND		0.50	1	05/29/2014 23:56
1,3,5-Trimethylbenzene	ND		0.50	1	05/29/2014 23:56
Vinyl Chloride	ND		0.50	1	05/29/2014 23:56
Xylenes, Total	ND		0.50	1	05/29/2014 23:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	104		70-130		05/29/2014 23:56
Toluene-d8	102		70-130		05/29/2014 23:56
4-BFB	99		70-130		05/29/2014 23:56

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-13	1405953-019A	Water	05/22/2014 09:20	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 00:10
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 00:10
Benzene	ND		0.50	1	05/30/2014 00:10
Bromobenzene	ND		0.50	1	05/30/2014 00:10
Bromochloromethane	ND		0.50	1	05/30/2014 00:10
Bromodichloromethane	ND		0.50	1	05/30/2014 00:10
Bromoform	ND		0.50	1	05/30/2014 00:10
Bromomethane	ND		0.50	1	05/30/2014 00:10
2-Butanone (MEK)	ND		2.0	1	05/30/2014 00:10
t-Butyl alcohol (TBA)	6.2		2.0	1	05/30/2014 00:10
n-Butyl benzene	ND		0.50	1	05/30/2014 00:10
sec-Butyl benzene	ND		0.50	1	05/30/2014 00:10
tert-Butyl benzene	ND		0.50	1	05/30/2014 00:10
Carbon Disulfide	ND		0.50	1	05/30/2014 00:10
Carbon Tetrachloride	ND		0.50	1	05/30/2014 00:10
Chlorobenzene	ND		0.50	1	05/30/2014 00:10
Chloroethane	ND		0.50	1	05/30/2014 00:10
Chloroform	ND		0.50	1	05/30/2014 00:10
Chloromethane	ND		0.50	1	05/30/2014 00:10
2-Chlorotoluene	ND		0.50	1	05/30/2014 00:10
4-Chlorotoluene	ND		0.50	1	05/30/2014 00:10
Dibromochloromethane	ND		0.50	1	05/30/2014 00:10
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 00:10
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 00:10
Dibromomethane	ND		0.50	1	05/30/2014 00:10
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 00:10
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 00:10
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 00:10
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 00:10
1,1-Dichloroethane	ND		0.50	1	05/30/2014 00:10
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 00:10
1,1-Dichloroethene	ND		0.50	1	05/30/2014 00:10
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:10
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:10
1,2-Dichloropropane	ND		0.50	1	05/30/2014 00:10
1,3-Dichloropropane	ND		0.50	1	05/30/2014 00:10
2,2-Dichloropropane	ND		0.50	1	05/30/2014 00:10
1,1-Dichloropropene	ND		0.50	1	05/30/2014 00:10

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-13	1405953-019A	Water	05/22/2014 09:20	GC38	90965
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:10
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:10
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 00:10
Ethylbenzene	ND		0.50	1	05/30/2014 00:10
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 00:10
Freon 113	ND		0.50	1	05/30/2014 00:10
Hexachlorobutadiene	ND		0.50	1	05/30/2014 00:10
Hexachloroethane	ND		0.50	1	05/30/2014 00:10
2-Hexanone	ND		0.50	1	05/30/2014 00:10
Isopropylbenzene	ND		0.50	1	05/30/2014 00:10
4-Isopropyl toluene	ND		0.50	1	05/30/2014 00:10
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 00:10
Methylene chloride	ND		0.50	1	05/30/2014 00:10
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 00:10
Naphthalene	ND		0.50	1	05/30/2014 00:10
n-Propyl benzene	ND		0.50	1	05/30/2014 00:10
Styrene	ND		0.50	1	05/30/2014 00:10
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:10
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:10
Tetrachloroethene	ND		0.50	1	05/30/2014 00:10
Toluene	ND		0.50	1	05/30/2014 00:10
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 00:10
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 00:10
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 00:10
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 00:10
Trichloroethene	ND		0.50	1	05/30/2014 00:10
Trichlorofluoromethane	ND		0.50	1	05/30/2014 00:10
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 00:10
1,2,4-Trimethylbenzene	ND		0.50	1	05/30/2014 00:10
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 00:10
Vinyl Chloride	ND		0.50	1	05/30/2014 00:10
Xylenes, Total	ND		0.50	1	05/30/2014 00:10
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	111		70-130		05/30/2014 00:10
Toluene-d8	98		70-130		05/30/2014 00:10
4-BFB	98		70-130		05/30/2014 00:10

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-5	1405953-020A	Water	05/22/2014 10:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 00:35
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 00:35
Benzene	ND		0.50	1	05/30/2014 00:35
Bromobenzene	ND		0.50	1	05/30/2014 00:35
Bromochloromethane	ND		0.50	1	05/30/2014 00:35
Bromodichloromethane	ND		0.50	1	05/30/2014 00:35
Bromoform	ND		0.50	1	05/30/2014 00:35
Bromomethane	ND		0.50	1	05/30/2014 00:35
2-Butanone (MEK)	ND		2.0	1	05/30/2014 00:35
t-Butyl alcohol (TBA)	ND		2.0	1	05/30/2014 00:35
n-Butyl benzene	ND		0.50	1	05/30/2014 00:35
sec-Butyl benzene	ND		0.50	1	05/30/2014 00:35
tert-Butyl benzene	ND		0.50	1	05/30/2014 00:35
Carbon Disulfide	ND		0.50	1	05/30/2014 00:35
Carbon Tetrachloride	ND		0.50	1	05/30/2014 00:35
Chlorobenzene	ND		0.50	1	05/30/2014 00:35
Chloroethane	ND		0.50	1	05/30/2014 00:35
Chloroform	ND		0.50	1	05/30/2014 00:35
Chloromethane	ND		0.50	1	05/30/2014 00:35
2-Chlorotoluene	ND		0.50	1	05/30/2014 00:35
4-Chlorotoluene	ND		0.50	1	05/30/2014 00:35
Dibromochloromethane	ND		0.50	1	05/30/2014 00:35
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 00:35
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 00:35
Dibromomethane	ND		0.50	1	05/30/2014 00:35
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 00:35
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 00:35
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 00:35
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 00:35
1,1-Dichloroethane	ND		0.50	1	05/30/2014 00:35
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 00:35
1,1-Dichloroethene	ND		0.50	1	05/30/2014 00:35
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:35
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 00:35
1,2-Dichloropropane	ND		0.50	1	05/30/2014 00:35
1,3-Dichloropropane	ND		0.50	1	05/30/2014 00:35
2,2-Dichloropropane	ND		0.50	1	05/30/2014 00:35
1,1-Dichloropropene	ND		0.50	1	05/30/2014 00:35

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-5	1405953-020A	Water	05/22/2014 10:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:35
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 00:35
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 00:35
Ethylbenzene	ND		0.50	1	05/30/2014 00:35
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 00:35
Freon 113	ND		0.50	1	05/30/2014 00:35
Hexachlorobutadiene	ND		0.50	1	05/30/2014 00:35
Hexachloroethane	ND		0.50	1	05/30/2014 00:35
2-Hexanone	ND		0.50	1	05/30/2014 00:35
Isopropylbenzene	ND		0.50	1	05/30/2014 00:35
4-Isopropyl toluene	ND		0.50	1	05/30/2014 00:35
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 00:35
Methylene chloride	ND		0.50	1	05/30/2014 00:35
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 00:35
Naphthalene	ND		0.50	1	05/30/2014 00:35
n-Propyl benzene	ND		0.50	1	05/30/2014 00:35
Styrene	ND		0.50	1	05/30/2014 00:35
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:35
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 00:35
Tetrachloroethene	ND		0.50	1	05/30/2014 00:35
Toluene	ND		0.50	1	05/30/2014 00:35
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 00:35
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 00:35
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 00:35
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 00:35
Trichloroethene	ND		0.50	1	05/30/2014 00:35
Trichlorofluoromethane	ND		0.50	1	05/30/2014 00:35
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 00:35
1,2,4-Trimethylbenzene	ND		0.50	1	05/30/2014 00:35
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 00:35
Vinyl Chloride	ND		0.50	1	05/30/2014 00:35
Xylenes, Total	ND		0.50	1	05/30/2014 00:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		05/30/2014 00:35
Toluene-d8	102		70-130		05/30/2014 00:35
4-BFB	101		70-130		05/30/2014 00:35

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	1405953-021A	Water	05/22/2014 11:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 01:13
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 01:13
Benzene	ND		0.50	1	05/30/2014 01:13
Bromobenzene	ND		0.50	1	05/30/2014 01:13
Bromochloromethane	ND		0.50	1	05/30/2014 01:13
Bromodichloromethane	ND		0.50	1	05/30/2014 01:13
Bromoform	ND		0.50	1	05/30/2014 01:13
Bromomethane	ND		0.50	1	05/30/2014 01:13
2-Butanone (MEK)	ND		2.0	1	05/30/2014 01:13
t-Butyl alcohol (TBA)	ND		2.0	1	05/30/2014 01:13
n-Butyl benzene	ND		0.50	1	05/30/2014 01:13
sec-Butyl benzene	ND		0.50	1	05/30/2014 01:13
tert-Butyl benzene	ND		0.50	1	05/30/2014 01:13
Carbon Disulfide	ND		0.50	1	05/30/2014 01:13
Carbon Tetrachloride	ND		0.50	1	05/30/2014 01:13
Chlorobenzene	ND		0.50	1	05/30/2014 01:13
Chloroethane	ND		0.50	1	05/30/2014 01:13
Chloroform	ND		0.50	1	05/30/2014 01:13
Chloromethane	ND		0.50	1	05/30/2014 01:13
2-Chlorotoluene	ND		0.50	1	05/30/2014 01:13
4-Chlorotoluene	ND		0.50	1	05/30/2014 01:13
Dibromochloromethane	ND		0.50	1	05/30/2014 01:13
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 01:13
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 01:13
Dibromomethane	ND		0.50	1	05/30/2014 01:13
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 01:13
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 01:13
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 01:13
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 01:13
1,1-Dichloroethane	ND		0.50	1	05/30/2014 01:13
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 01:13
1,1-Dichloroethene	ND		0.50	1	05/30/2014 01:13
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:13
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:13
1,2-Dichloropropane	ND		0.50	1	05/30/2014 01:13
1,3-Dichloropropane	ND		0.50	1	05/30/2014 01:13
2,2-Dichloropropane	ND		0.50	1	05/30/2014 01:13
1,1-Dichloropropene	ND		0.50	1	05/30/2014 01:13

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-3	1405953-021A	Water	05/22/2014 11:00	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:13
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:13
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 01:13
Ethylbenzene	ND		0.50	1	05/30/2014 01:13
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 01:13
Freon 113	ND		0.50	1	05/30/2014 01:13
Hexachlorobutadiene	ND		0.50	1	05/30/2014 01:13
Hexachloroethane	ND		0.50	1	05/30/2014 01:13
2-Hexanone	ND		0.50	1	05/30/2014 01:13
Isopropylbenzene	ND		0.50	1	05/30/2014 01:13
4-Isopropyl toluene	ND		0.50	1	05/30/2014 01:13
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 01:13
Methylene chloride	ND		0.50	1	05/30/2014 01:13
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 01:13
Naphthalene	ND		0.50	1	05/30/2014 01:13
n-Propyl benzene	ND		0.50	1	05/30/2014 01:13
Styrene	ND		0.50	1	05/30/2014 01:13
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:13
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:13
Tetrachloroethene	ND		0.50	1	05/30/2014 01:13
Toluene	ND		0.50	1	05/30/2014 01:13
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 01:13
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 01:13
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 01:13
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 01:13
Trichloroethene	ND		0.50	1	05/30/2014 01:13
Trichlorofluoromethane	ND		0.50	1	05/30/2014 01:13
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 01:13
1,2,4-Trimethylbenzene	ND		0.50	1	05/30/2014 01:13
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 01:13
Vinyl Chloride	ND		0.50	1	05/30/2014 01:13
Xylenes, Total	ND		0.50	1	05/30/2014 01:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		05/30/2014 01:13
Toluene-d8	102		70-130		05/30/2014 01:13
4-BFB	99		70-130		05/30/2014 01:13

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AS-1B	1405953-022A	Water	05/22/2014 12:30	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	5	05/31/2014 00:33
tert-Amyl methyl ether (TAME)	ND		2.5	5	05/31/2014 00:33
Benzene	4.9		2.5	5	05/31/2014 00:33
Bromobenzene	ND		2.5	5	05/31/2014 00:33
Bromochloromethane	ND		2.5	5	05/31/2014 00:33
Bromodichloromethane	ND		2.5	5	05/31/2014 00:33
Bromoform	ND		2.5	5	05/31/2014 00:33
Bromomethane	ND		2.5	5	05/31/2014 00:33
2-Butanone (MEK)	ND		10	5	05/31/2014 00:33
t-Butyl alcohol (TBA)	460		10	5	05/31/2014 00:33
n-Butyl benzene	ND		2.5	5	05/31/2014 00:33
sec-Butyl benzene	ND		2.5	5	05/31/2014 00:33
tert-Butyl benzene	ND		2.5	5	05/31/2014 00:33
Carbon Disulfide	ND		2.5	5	05/31/2014 00:33
Carbon Tetrachloride	ND		2.5	5	05/31/2014 00:33
Chlorobenzene	ND		2.5	5	05/31/2014 00:33
Chloroethane	ND		2.5	5	05/31/2014 00:33
Chloroform	ND		2.5	5	05/31/2014 00:33
Chloromethane	ND		2.5	5	05/31/2014 00:33
2-Chlorotoluene	ND		2.5	5	05/31/2014 00:33
4-Chlorotoluene	ND		2.5	5	05/31/2014 00:33
Dibromochloromethane	ND		2.5	5	05/31/2014 00:33
1,2-Dibromo-3-chloropropane	ND		1.0	5	05/31/2014 00:33
1,2-Dibromoethane (EDB)	ND		2.5	5	05/31/2014 00:33
Dibromomethane	ND		2.5	5	05/31/2014 00:33
1,2-Dichlorobenzene	ND		2.5	5	05/31/2014 00:33
1,3-Dichlorobenzene	ND		2.5	5	05/31/2014 00:33
1,4-Dichlorobenzene	ND		2.5	5	05/31/2014 00:33
Dichlorodifluoromethane	ND		2.5	5	05/31/2014 00:33
1,1-Dichloroethane	ND		2.5	5	05/31/2014 00:33
1,2-Dichloroethane (1,2-DCA)	ND		2.5	5	05/31/2014 00:33
1,1-Dichloroethene	ND		2.5	5	05/31/2014 00:33
cis-1,2-Dichloroethene	ND		2.5	5	05/31/2014 00:33
trans-1,2-Dichloroethene	ND		2.5	5	05/31/2014 00:33
1,2-Dichloropropane	ND		2.5	5	05/31/2014 00:33
1,3-Dichloropropane	ND		2.5	5	05/31/2014 00:33
2,2-Dichloropropane	ND		2.5	5	05/31/2014 00:33
1,1-Dichloropropene	ND		2.5	5	05/31/2014 00:33

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
AS-1B	1405953-022A	Water	05/22/2014 12:30	GC38	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.5	5	05/31/2014 00:33
trans-1,3-Dichloropropene	ND		2.5	5	05/31/2014 00:33
Diisopropyl ether (DIPE)	ND		2.5	5	05/31/2014 00:33
Ethylbenzene	ND		2.5	5	05/31/2014 00:33
Ethyl tert-butyl ether (ETBE)	ND		2.5	5	05/31/2014 00:33
Freon 113	ND		2.5	5	05/31/2014 00:33
Hexachlorobutadiene	ND		2.5	5	05/31/2014 00:33
Hexachloroethane	ND		2.5	5	05/31/2014 00:33
2-Hexanone	ND		2.5	5	05/31/2014 00:33
Isopropylbenzene	ND		2.5	5	05/31/2014 00:33
4-Isopropyl toluene	ND		2.5	5	05/31/2014 00:33
Methyl-t-butyl ether (MTBE)	ND		2.5	5	05/31/2014 00:33
Methylene chloride	ND		2.5	5	05/31/2014 00:33
4-Methyl-2-pentanone (MIBK)	ND		2.5	5	05/31/2014 00:33
Naphthalene	ND		2.5	5	05/31/2014 00:33
n-Propyl benzene	ND		2.5	5	05/31/2014 00:33
Styrene	ND		2.5	5	05/31/2014 00:33
1,1,1,2-Tetrachloroethane	ND		2.5	5	05/31/2014 00:33
1,1,2,2-Tetrachloroethane	ND		2.5	5	05/31/2014 00:33
Tetrachloroethene	ND		2.5	5	05/31/2014 00:33
Toluene	4.0		2.5	5	05/31/2014 00:33
1,2,3-Trichlorobenzene	ND		2.5	5	05/31/2014 00:33
1,2,4-Trichlorobenzene	ND		2.5	5	05/31/2014 00:33
1,1,1-Trichloroethane	ND		2.5	5	05/31/2014 00:33
1,1,2-Trichloroethane	ND		2.5	5	05/31/2014 00:33
Trichloroethene	ND		2.5	5	05/31/2014 00:33
Trichlorofluoromethane	ND		2.5	5	05/31/2014 00:33
1,2,3-Trichloropropane	ND		2.5	5	05/31/2014 00:33
1,2,4-Trimethylbenzene	2.7		2.5	5	05/31/2014 00:33
1,3,5-Trimethylbenzene	ND		2.5	5	05/31/2014 00:33
Vinyl Chloride	ND		2.5	5	05/31/2014 00:33
Xylenes, Total	6.5		2.5	5	05/31/2014 00:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	114		70-130		05/31/2014 00:33
Toluene-d8	96		70-130		05/31/2014 00:33
4-BFB	99		70-130		05/31/2014 00:33

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1405953-023A	Water	05/22/2014 12:20	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	05/30/2014 01:52
tert-Amyl methyl ether (TAME)	ND		0.50	1	05/30/2014 01:52
Benzene	ND		0.50	1	05/30/2014 01:52
Bromobenzene	ND		0.50	1	05/30/2014 01:52
Bromochloromethane	ND		0.50	1	05/30/2014 01:52
Bromodichloromethane	ND		0.50	1	05/30/2014 01:52
Bromoform	ND		0.50	1	05/30/2014 01:52
Bromomethane	ND		0.50	1	05/30/2014 01:52
2-Butanone (MEK)	ND		2.0	1	05/30/2014 01:52
t-Butyl alcohol (TBA)	ND		2.0	1	05/30/2014 01:52
n-Butyl benzene	ND		0.50	1	05/30/2014 01:52
sec-Butyl benzene	ND		0.50	1	05/30/2014 01:52
tert-Butyl benzene	ND		0.50	1	05/30/2014 01:52
Carbon Disulfide	ND		0.50	1	05/30/2014 01:52
Carbon Tetrachloride	ND		0.50	1	05/30/2014 01:52
Chlorobenzene	ND		0.50	1	05/30/2014 01:52
Chloroethane	ND		0.50	1	05/30/2014 01:52
Chloroform	ND		0.50	1	05/30/2014 01:52
Chloromethane	ND		0.50	1	05/30/2014 01:52
2-Chlorotoluene	ND		0.50	1	05/30/2014 01:52
4-Chlorotoluene	ND		0.50	1	05/30/2014 01:52
Dibromochloromethane	ND		0.50	1	05/30/2014 01:52
1,2-Dibromo-3-chloropropane	ND		0.20	1	05/30/2014 01:52
1,2-Dibromoethane (EDB)	ND		0.50	1	05/30/2014 01:52
Dibromomethane	ND		0.50	1	05/30/2014 01:52
1,2-Dichlorobenzene	ND		0.50	1	05/30/2014 01:52
1,3-Dichlorobenzene	ND		0.50	1	05/30/2014 01:52
1,4-Dichlorobenzene	ND		0.50	1	05/30/2014 01:52
Dichlorodifluoromethane	ND		0.50	1	05/30/2014 01:52
1,1-Dichloroethane	ND		0.50	1	05/30/2014 01:52
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	05/30/2014 01:52
1,1-Dichloroethene	ND		0.50	1	05/30/2014 01:52
cis-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:52
trans-1,2-Dichloroethene	ND		0.50	1	05/30/2014 01:52
1,2-Dichloropropane	ND		0.50	1	05/30/2014 01:52
1,3-Dichloropropane	ND		0.50	1	05/30/2014 01:52
2,2-Dichloropropane	ND		0.50	1	05/30/2014 01:52
1,1-Dichloropropene	ND		0.50	1	05/30/2014 01:52

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Analytical Report

Client: Treadwell & Rollo
Project: #731630001
Date Received: 5/23/14 19:29
Date Prepared: 5/29/14-5/31/14

WorkOrder: 1405953
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L

Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-2	1405953-023A	Water	05/22/2014 12:20	GC28	90956
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:52
trans-1,3-Dichloropropene	ND		0.50	1	05/30/2014 01:52
Diisopropyl ether (DIPE)	ND		0.50	1	05/30/2014 01:52
Ethylbenzene	ND		0.50	1	05/30/2014 01:52
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	05/30/2014 01:52
Freon 113	ND		0.50	1	05/30/2014 01:52
Hexachlorobutadiene	ND		0.50	1	05/30/2014 01:52
Hexachloroethane	ND		0.50	1	05/30/2014 01:52
2-Hexanone	ND		0.50	1	05/30/2014 01:52
Isopropylbenzene	ND		0.50	1	05/30/2014 01:52
4-Isopropyl toluene	ND		0.50	1	05/30/2014 01:52
Methyl-t-butyl ether (MTBE)	ND		0.50	1	05/30/2014 01:52
Methylene chloride	ND		0.50	1	05/30/2014 01:52
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	05/30/2014 01:52
Naphthalene	ND		0.50	1	05/30/2014 01:52
n-Propyl benzene	ND		0.50	1	05/30/2014 01:52
Styrene	ND		0.50	1	05/30/2014 01:52
1,1,1,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:52
1,1,2,2-Tetrachloroethane	ND		0.50	1	05/30/2014 01:52
Tetrachloroethene	ND		0.50	1	05/30/2014 01:52
Toluene	ND		0.50	1	05/30/2014 01:52
1,2,3-Trichlorobenzene	ND		0.50	1	05/30/2014 01:52
1,2,4-Trichlorobenzene	ND		0.50	1	05/30/2014 01:52
1,1,1-Trichloroethane	ND		0.50	1	05/30/2014 01:52
1,1,2-Trichloroethane	ND		0.50	1	05/30/2014 01:52
Trichloroethene	ND		0.50	1	05/30/2014 01:52
Trichlorofluoromethane	ND		0.50	1	05/30/2014 01:52
1,2,3-Trichloropropane	ND		0.50	1	05/30/2014 01:52
1,2,4-Trimethylbenzene	ND		0.50	1	05/30/2014 01:52
1,3,5-Trimethylbenzene	ND		0.50	1	05/30/2014 01:52
Vinyl Chloride	ND		0.50	1	05/30/2014 01:52
Xylenes, Total	ND		0.50	1	05/30/2014 01:52
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		05/30/2014 01:52
Toluene-d8	102		70-130		05/30/2014 01:52
4-BFB	100		70-130		05/30/2014 01:52



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/29/14
Date Analyzed: 5/29/14
Instrument: GC28
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90956
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90956
 1405953-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	19.1	0.50	20	-	95.6	70-130
Benzene	ND	19.4	0.50	20	-	97.1	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	67.8	2.0	80	-	84.7	70-130
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	19.9	0.50	20	-	99.4	70-130
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	19.8	0.50	20	-	99.1	70-130
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	18.6	0.50	20	-	93.1	70-130
1,1-Dichloroethene	ND	18.9	0.50	20	-	94.4	70-130
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/29/14
Date Analyzed: 5/29/14
Instrument: GC28
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90956
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90956
 1405953-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	19.3	0.50	20	-	96.4	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	19.8	0.50	20	-	99.3	70-130
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	19.0	0.50	20	-	94.9	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	18.5	0.50	20	-	92.6	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	20.7	0.50	20	-	104	70-130
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	25.4	45.8		45	102	102	70-130
Toluene-d8	25.6	45.2		45	102	101	70-130
4-BFB	2.52	4.51		4.5	101	100	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/29/14
Date Analyzed: 5/29/14
Instrument: GC28
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90956
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90956
 1405953-001AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	20.6	20.5	20	ND	103	102	70-130	0.710	20
Benzene	19.4	19.4	20	ND	97	97	70-130	0	20
t-Butyl alcohol (TBA)	85.9	82.1	80	ND	107	103	70-130	4.53	20
Chlorobenzene	20.7	20.4	20	ND	103	102	70-130	1.50	20
1,2-Dibromoethane (EDB)	21.6	21.7	20	ND	108	109	70-130	0.736	20
1,2-Dichloroethane (1,2-DCA)	20.1	20.1	20	ND	101	100	70-130	0.237	20
1,1-Dichloroethene	19.6	20.0	20	ND	98	99.9	70-130	1.86	20
Diisopropyl ether (DIPE)	19.7	19.6	20	ND	98.5	98.1	70-130	0.445	20
Ethyl tert-butyl ether (ETBE)	21.0	20.8	20	ND	105	104	70-130	0.571	20
Methyl-t-butyl ether (MTBE)	20.8	20.9	20	ND	104	105	70-130	0.530	20
Toluene	18.8	18.6	20	ND	94.1	92.7	70-130	1.43	20
Trichloroethene	21.8	22.0	20	ND	109	110	70-130	1.02	20
Surrogate Recovery									
Dibromofluoromethane	47.3	47.6	45		105	106	70-130	0.629	20
Toluene-d8	44.5	44.7	45		99	99	70-130	0	20
4-BFB	4.51	4.46	4.5		100	99	70-130	1.15	20

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/30/14
Date Analyzed: 5/29/14
Instrument: GC38
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90965
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90965
 1405953-019AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	17.0	0.50	20	-	85	70-130
Benzene	ND	16.8	0.50	20	-	83.9	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromochloromethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	63.3	2.0	80	-	79.1	70-130
n-Butyl benzene	ND	-	0.50	-	-	-	-
sec-Butyl benzene	ND	-	0.50	-	-	-	-
tert-Butyl benzene	ND	-	0.50	-	-	-	-
Carbon Disulfide	ND	-	0.50	-	-	-	-
Carbon Tetrachloride	ND	-	0.50	-	-	-	-
Chlorobenzene	ND	16.7	0.50	20	-	83.6	70-130
Chloroethane	ND	-	0.50	-	-	-	-
Chloroform	ND	-	0.50	-	-	-	-
Chloromethane	ND	-	0.50	-	-	-	-
2-Chlorotoluene	ND	-	0.50	-	-	-	-
4-Chlorotoluene	ND	-	0.50	-	-	-	-
Dibromochloromethane	ND	-	0.50	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.20	-	-	-	-
1,2-Dibromoethane (EDB)	ND	16.9	0.50	20	-	84.5	70-130
Dibromomethane	ND	-	0.50	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.50	-	-	-	-
Dichlorodifluoromethane	ND	-	0.50	-	-	-	-
1,1-Dichloroethane	ND	-	0.50	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	16.0	0.50	20	-	79.8	70-130
1,1-Dichloroethene	ND	17.0	0.50	20	-	84.7	70-130
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,3-Dichloropropane	ND	-	0.50	-	-	-	-
2,2-Dichloropropane	ND	-	0.50	-	-	-	-
1,1-Dichloropropene	ND	-	0.50	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.50	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.50	-	-	-	-

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/30/14
Date Analyzed: 5/29/14
Instrument: GC38
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90965
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90965
 1405953-019AMS/MSD

QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	17.4	0.50	20	-	87.2	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	17.2	0.50	20	-	85.8	70-130
Freon 113	ND	-	0.50	-	-	-	-
Hexachlorobutadiene	ND	-	0.50	-	-	-	-
Hexachloroethane	ND	-	0.50	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
Isopropylbenzene	ND	-	0.50	-	-	-	-
4-Isopropyl toluene	ND	-	0.50	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	16.5	0.50	20	-	82.3	70-130
Methylene chloride	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.50	-	-	-	-
Naphthalene	ND	-	0.50	-	-	-	-
n-Propyl benzene	ND	-	0.50	-	-	-	-
Styrene	ND	-	0.50	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.50	-	-	-	-
Tetrachloroethene	ND	-	0.50	-	-	-	-
Toluene	ND	16.8	0.50	20	-	84	70-130
1,2,3-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.50	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.50	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.50	-	-	-	-
Trichloroethene	ND	17.2	0.50	20	-	85.9	70-130
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.50	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	-	0.50	-	-	-	-
Xylenes, Total	ND	-	0.50	-	-	-	-

Surrogate Recovery

Dibromofluoromethane	28.1	44.3		45	113	98	70-130
Toluene-d8	24.3	39.7		45	97	88	70-130
4-BFB	2.40	4.04		4.5	96	90	70-130

(Cont.)



Quality Control Report

Client: Treadwell & Rollo
Date Prepared: 5/30/14
Date Analyzed: 5/29/14
Instrument: GC38
Matrix: Water
Project: #731630001

WorkOrder: 1405953
BatchID: 90965
Extraction Method: SW5030B
Analytical Method: SW8260B
Unit: µg/L
Sample ID: MB/LCS-90965
 1405953-019AMS/MSD

QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	19.1	19.4	20	ND	95.3	96.9	70-130	1.59	20
Benzene	17.0	16.3	20	ND	85.1	81.7	70-130	4.09	20
t-Butyl alcohol (TBA)	92.3	90.1	80	6.188	108	105	70-130	2.37	20
Chlorobenzene	18.2	17.4	20	ND	90.8	86.8	70-130	4.41	20
1,2-Dibromoethane (EDB)	19.8	19.5	20	ND	98.8	97.4	70-130	1.45	20
1,2-Dichloroethane (1,2-DCA)	17.2	16.8	20	ND	86.1	84	70-130	2.44	20
1,1-Dichloroethene	18.4	17.1	20	ND	92	85.4	70-130	7.45	20
Diisopropyl ether (DIPE)	18.0	17.8	20	ND	90	88.9	70-130	1.17	20
Ethyl tert-butyl ether (ETBE)	18.3	18.2	20	ND	91.4	91.3	70-130	0.131	20
Methyl-t-butyl ether (MTBE)	18.3	18.1	20	ND	91.3	90.6	70-130	0.762	20
Toluene	17.6	16.8	20	ND	88.1	84	70-130	4.77	20
Trichloroethene	17.9	16.9	20	ND	89.5	84.4	70-130	5.83	20
Surrogate Recovery									
Dibromofluoromethane	47.7	47.4	45		106	105	70-130	0.563	20
Toluene-d8	43.5	42.8	45		97	95	70-130	1.63	20
4-BFB	4.41	4.24	4.5		98	94	70-130	4.04	20

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405953

ClientCode: TWRF

WaterTrax WriteOn EDF Excel EQulS Email HardCopy ThirdParty J-flag

Report to:
Adam Brown
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111
(415) 955-5244 FAX: (415) 955-9041

Email: abrown@langan.com
cc/3rd Party:
PO:
ProjectNo: #140520-DRI

Bill to:
Accounts Payable
Treadwell & Rollo
555 Montgomery St., Suite 1300
San Francisco, CA 94111

Requested TAT: 5 days

Date Received: 05/23/2014
Date Printed: 05/23/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1405953-001	TB-1	Water	5/20/2014 7:00	<input type="checkbox"/>	A												
1405953-002	MW-4	Water	5/20/2014 11:10	<input type="checkbox"/>	A												
1405953-003	MW-10	Water	5/20/2014 11:50	<input type="checkbox"/>	A												
1405953-004	RW-2	Water	5/20/2014 12:25	<input type="checkbox"/>	A												
1405953-005	MW-9	Water	5/20/2014 12:45	<input type="checkbox"/>	A												
1405953-006	MW-6	Water	5/20/2014 13:55	<input type="checkbox"/>	A												
1405953-007	MW-7	Water	5/20/2014 15:05	<input type="checkbox"/>	A												
1405953-008	TB-2	Water	5/21/2014 7:00	<input type="checkbox"/>	A												
1405953-009	MW-8	Water	5/21/2014 7:50	<input type="checkbox"/>	A												
1405953-010	MW-16A	Water	5/21/2014 8:50	<input type="checkbox"/>	A												
1405953-011	MW-16B	Water	5/21/2014 11:15	<input type="checkbox"/>	A												
1405953-012	MW-15	Water	5/21/2014 9:45	<input type="checkbox"/>	A												
1405953-013	MW-17A	Water	5/21/2014 10:30	<input type="checkbox"/>	A												
1405953-014	MW-17B	Water	5/21/2014 10:50	<input type="checkbox"/>	A												
1405953-015	RW-5	Water	5/21/2014 14:05	<input type="checkbox"/>	A												
1405953-016	MW-1	Water	5/21/2014 14:25	<input type="checkbox"/>	A												

Test Legend:

1	8260B_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Shana Carter

Comments: SEND HARD COPY

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.

1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1405953

ClientCode: TWRF

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Adam Brown
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111
 (415) 955-5244 FAX: (415) 955-9041

Email: abrown@langan.com
 cc/3rd Party:
 PO:
 ProjectNo: #140520-DRI

Bill to:
 Accounts Payable
 Treadwell & Rollo
 555 Montgomery St., Suite 1300
 San Francisco, CA 94111

Requested TAT: 5 days

Date Received: 05/23/2014
Date Printed: 05/23/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1405953-017	RW-4	Water	5/21/2014 15:01	<input type="checkbox"/>	A												
1405953-018	TB-3	Water	5/22/2014 6:30	<input type="checkbox"/>	A												
1405953-019	MW-13	Water	5/22/2014 9:20	<input type="checkbox"/>	A												
1405953-020	MW-5	Water	5/22/2014 10:00	<input type="checkbox"/>	A												
1405953-021	MW-3	Water	5/22/2014 11:00	<input type="checkbox"/>	A												
1405953-022	AS-1B	Water	5/22/2014 12:30	<input type="checkbox"/>	A												
1405953-023	MW-2	Water	5/22/2014 12:20	<input type="checkbox"/>	A												

Test Legend:

1	8260B_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Shana Carter

Comments: SEND HARD COPY

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1405953

Project: #140520-DRI

Client Contact: Adam Brown

Date Received: 5/23/2014

Comments: SEND HARD COPY

Contact's Email: abrown@langan.com

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Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405953-001A	TB-1	Water	SW8260B (VOCs)	1	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 7:00	5 days	None	<input type="checkbox"/>	
1405953-002A	MW-4	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 11:10	5 days	Present	<input type="checkbox"/>	
1405953-003A	MW-10	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 11:50	5 days	Present	<input type="checkbox"/>	
1405953-004A	RW-2	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 12:25	5 days	Present	<input type="checkbox"/>	
1405953-005A	MW-9	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 12:45	5 days	Present	<input type="checkbox"/>	
1405953-006A	MW-6	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 13:55	5 days	Present	<input type="checkbox"/>	
1405953-007A	MW-7	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/20/2014 15:05	5 days	Present	<input type="checkbox"/>	
1405953-008A	TB-2	Water	SW8260B (VOCs)	1	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 7:00	5 days	None	<input type="checkbox"/>	
1405953-009A	MW-8	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 7:50	5 days	Present	<input type="checkbox"/>	
1405953-010A	MW-16A	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 8:50	5 days	Present	<input type="checkbox"/>	
1405953-011A	MW-16B	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 11:15	5 days	Present	<input type="checkbox"/>	
1405953-012A	MW-15	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 9:45	5 days	Present	<input type="checkbox"/>	
1405953-013A	MW-17A	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 10:30	5 days	Present	<input type="checkbox"/>	
1405953-014A	MW-17B	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 10:50	5 days	Present	<input type="checkbox"/>	
1405953-015A	RW-5	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 14:05	5 days	Present	<input type="checkbox"/>	
1405953-016A	MW-1	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 14:25	5 days	Present	<input type="checkbox"/>	
1405953-017A	RW-4	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/21/2014 15:01	5 days	Present	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

VOA w/ HCl = 43mL VOA w/ HCl



WORK ORDER SUMMARY

Client Name: TREADWELL & ROLLO

QC Level: LEVEL 2

Work Order: 1405953

Project: #140520-DRI

Client Contact: Adam Brown

Date Received: 5/23/2014

Comments: SEND HARD COPY

Contact's Email: abrown@langan.com

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Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1405953-018A	TB-3	Water	SW8260B (VOCs)	1	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 6:30	5 days	None	<input type="checkbox"/>	
1405953-019A	MW-13	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 9:20	5 days	Present	<input type="checkbox"/>	
1405953-020A	MW-5	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 10:00	5 days	Present	<input type="checkbox"/>	
1405953-021A	MW-3	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 11:00	5 days	Present	<input type="checkbox"/>	
1405953-022A	AS-1B	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 12:30	5 days	Present	<input type="checkbox"/>	
1405953-023A	MW-2	Water	SW8260B (VOCs)	3	VOA w/ HCl	<input type="checkbox"/>	5/22/2014 12:20	5 days	Present	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

VOA w/ HCl = 43mL VOA w/ HCl

140595B

18F3

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 IN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB McCampbell

DHS #

MUST MEET SPECIFICATIONS

- EPA
- LIA
- OTHER

RWQCB REGION _____

CHAIN OF CUSTODY
 BTS # 140520-221

CLIENT Treadwell & Rollo

SITE Connell Auto

3093 Broadway

Oakland, CA

C = COMPOSITE ALL CONTAINERS

~~TPH, g, BTEX, MTBE, VOCs (8260B)~~

VOCs (8260 B)

SPECIAL INSTRUCTIONS

Invoice and Report to: Adam Brown

Treadwell & Rollo - San Francisco Office

415.955.5259

abrown@langan.com

EDF Required

SAMPLE I.D.	DATE	TIME	MATRIX	CONTAINERS		C = COMPOSITE ALL CONTAINERS	TPH, g, BTEX, MTBE, VOCs (8260B)	VOCs (8260 B)							ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
			S = Soil W = H2O	TOTAL														
✓ TB-1	5/20/14	0700	W	1	1 H2O VOAS			X										
+ MW-4		1110	W	3				X										
+ MW-10		1150	W	3				X										
+ RW-2		1225	W	3				X										
+ MW-9		1245	W	3				X										
+ MW-6		1355	W	3				X										
+ MW-7		1505	W	3				X										
✓ TB-2	5/21/14	0700	W	1	1 H2O VOAS			X										
+ MW-8		0750	W	3				X										
+ MW-16A		0850	W	3				X										

COND CONDITION _____
 HEAD SPACE ABSENT _____
 PRESERVED IN LAB _____
 PRESERVATION _____

VOAS	O&G	METALS	OTHER
------	-----	--------	-------

SAMPLING COMPLETED DATE 5/22/14 TIME 1320 SAMPLING PERFORMED BY D. Reynal RESULTS NEEDED NO LATER THAN Standard

RELEASED BY [Signature] DATE 5/22/14 TIME 1445 RECEIVED BY [Signature] (Sample Custodian) DATE 5/22/14 TIME 1445

RELEASED BY [Signature] (Sample Custodian) DATE 5/23/14 TIME 1105 RECEIVED BY [Signature] DATE 5/23/14 TIME 1105

RELEASED BY [Signature] DATE 5/23 DATE 9/03 TIME 1700 RECEIVED BY Shana Carter DATE 5/23/14 TIME 1700

SHIPPED VIA DATE SENT TIME SENT COOLER #

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB McCampbell

DHS #

CHAIN OF CUSTODY
BTS # 140520-DK1

CLIENT Treadwell & Rollo

SITE Connell Auto
3093 Broadway
Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-g, BTEX, MIBE, VOC's (8260B)

VOC's (8260B)

MUST MEET SPECIFICATIONS

EPA RWQCB REGION _____

LIA

OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to: Adam Brown
Treadwell & Rollo - San Francisco Office

415.955.5259

abrown@langan.com

EDF Required

SAMPLE I.D.	DATE	TIME	MATRIX S = Soil W = H2O	CONTAINERS TOTAL														
+ MW-16B	5/21/14	1115	W	3	HLVVOCS													
+ MW-15		0945	W	3														
+ MW-17A		1030	W	3														
+ MW-17B		1050	W	3														
+ RW-5		1405	W	3														
+ MW-1		1425	W	3														
+ RW-4	✓	1501	W	3	✓													
✓ TB-3	5/22/14	0630	W	1	HLVVOCS													
+ MW-13		0920	W	3														
+ MW-5		1000	W	3														

ICE/P
GOOD CONDITION
NO SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION VOAS O&G METALS OTHER
APPROPRIATE CONTAINERS
PRESERVED IN LAB

SAMPLING COMPLETED DATE 5/22/14 TIME 1320 SAMPLING PERFORMED BY D. Royal RESULTS NEEDED NO LATER THAN Standard

RELEASED BY [Signature] DATE 5/22/14 TIME 1445 RECEIVED BY [Signature] DATE 5/22/14 TIME 1445

RELEASED BY [Signature] (Sample Custodian) DATE 5/23/14 TIME 1115 RECEIVED BY [Signature] DATE 5/23/14 TIME 1115

RELEASED BY [Signature] DATE 5/23 TIME 1740 RECEIVED BY Stana Carter DATE 5/23/14 TIME 1740

SHIPPED VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____



Sample Receipt Checklist

Client Name: **Treadwell & Rollo** Date and Time Received: **5/23/2014 7:29:40 PM**
 Project Name: **#140520-DRI** Login Reviewed by: **Shana Carter**
 WorkOrder N°: **1405953** Matrix: Water Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 3.4°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes No NA
 Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

 Comments:

ATTACHMENT 3

WELL DATA SHEETS

WELL GAUGING DATA

Project # 14 0520-D21 Date 5/20/14 Client Treadwell & Rella

Site 3093 Broadway Oakland Ca.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-9	1017	2					19.37	30.55	↓	
MW-4	1052	2					18.15	24.24		
MW-10	1117	6					17.45	33.91		
RW-2	1208	2					15.92	29.47		
MW-6	1331	2					22.93	34.01		
MW-8	1407	6					26.14	39.29		
MW-7	1435	2					16.99	31.00		
MW-16A	0813	2					23.64	29.86		
MW-16B	0820	2					26.13	39.49		
MW-15	0918	2					22.16	39.06		
MW-17A	1000	2					22.16	28.51		
MW-17B	1005	2					22.55	39.30		
AS-1B	1009	2					22.78	36.95		
MW-1	1137	2					22.13	31.88		
RW-4	1204	4					20.32	28.13		
RW-5	1210	4					21.33	32.64		
MW-13	0831	2					23.14	38.72	↓	

WELL MONITORING DATA SHEET

Project #: 140520-Dri	Client: Treadwell & Rolfe
Sampler: DR	Date: 5/22/14
Well I.D.: AS-1B	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 36.95	Depth to Water (DTW): 22.78
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.61	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <u>Electric Submersible</u>	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
---	--	---

2.3 (Gals.) X 3 = 6.9 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1112	19.0	7.07	727	815	2.2	
* well dewatered			@ 2.5 gal.			
1230	19.2	7.01	718	622	—	

Did well dewater? Yes No Gallons actually evacuated: 2.5

Sampling Date: 5/22/14 Sampling Time: 1230 Depth to Water: 25.22

Sample I.D.: AS-1B Laboratory: Kiff CalScience Other McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (82608)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-201	Client: Treadwell & Rella
Sampler: DR	Date: 5/21/14
Well I.D.: MW-1	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 31.88	Depth to Water (DTW): 22.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 24.08	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
--	---	---

$1.6 \text{ (Gals.)} \times 3 = 4.8 \text{ Gals.}$ 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1148	19.3	6.47	1318	>1000	1.6	black / odor
* Well	dug out	C	2.0 gal.			
1425	19.5	6.42	1309	718	-	.. / "

Did well dewater? Yes No Gallons actually evacuated: 2.0

Sampling Date: 5/21/14 Sampling Time: 1425 Depth to Water: 23.39

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (82608)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>140520-DN1</u>	Client: <u>Treadwell & Rello</u>
Sampler: <u>DN</u>	Date: <u>5/20/14</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>3</u> 3 4 6 8 _____
Total Well Depth (TD): <u>24.24</u>	Depth to Water (DTW): <u>18.15</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>19.37</u>	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

<u>1.0</u> (Gals.) X <u>3</u> = <u>3.0</u> Gals.	1 Case Volume Specified Volumes Calculated Volume	
--	---	--

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1100	20.2	6.41	698	112	1.0	odor
1102	20.2	6.38	746	107	2.0	"
1104	20.2	6.37	749	109	3.0	"

Did well dewater? Yes No Gallons actually evacuated: 3.0

Sampling Date: 5/20/14 Sampling Time: 1110 Depth to Water: 19.16

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other McCoy Inc

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC's (8260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-DN1	Client: Treadwell & Rolfe
Sampler: DN	Date: 5/22/14
Well I.D.: MW-S	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 33.54	Depth to Water (DTW): 25.73
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 27.29	

Purge Method: Bailer <u>Disposable Bailer</u> Positive Air Displacement Electric Submersible	Watterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
---	---	--

1.2 (Gals.) X	3	= 3.6 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
0932	20.0	6.77	754	>1000	1.2	
0935	20.1	6.53	763	>1000	2.4	
0938	20.0	6.54	761	>1000	3.6	

Did well dewater? Yes No Gallons actually evacuated: 3.6

Sampling Date: 5/22/14 Sampling Time: 1000 Depth to Water: 27.20 (waited)

Sample I.D.: MW-S Laboratory: Kiff CalScience Other McGough

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (8260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL MONITORING DATA SHEET

Project #: 140520-DN1	Client: Treadwell & Rello
Sampler: DN	Date: 5/20/14
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 34.01	Depth to Water (DTW): 22.93
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.15	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <u>Electric Submersible</u>	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
---	--	--

1.8 (Gals.) X	3	= 5.4 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1341	21.2	7.06	1003	42	1.8	color
1343	21.3	6.70	1021	37	3.6	"
1345	21.3	6.68	1023	33	5.4	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 5.4	
Sampling Date: 5/20/14	Sampling Time: 1355	Depth to Water: 25.07
Sample I.D.: MW-6	Laboratory: Kiff CalScience	Other: <u>McCombs</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>Voc's (8200B)</u>	
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: 140520-DN1	Client: Trendwell & Rella
Sampler: DN	Date: 5/20/14
Well I.D.: MW-7	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 31.00	Depth to Water (DTW): 16.99
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.79	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <u>Electric Submersible</u>	Waters: Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
---	--	--

$2.2 \text{ (Gals.)} \times 3 = 6.6 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1446	20.3	7.80	622	362	2.2	
1448	20.4	7.31	610	102	4.4	
1450	20.4	7.30	608	79	6.6	

Did well dewater? Yes No Gallons actually evacuated: 6.6

Sampling Date: 5/20/14 Sampling Time: 1505 Depth to Water: 19.64

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other: McLangwell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC's (8260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-DK1	Client: Trendwell & Rella
Sampler: DK	Date: 5/20/14
Well I.D.: MW-8	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 39.29	Depth to Water (DTW): 26.14
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.77	

Purge Method: Bailer	Waters: Waterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	<u>Disposable Bailer</u>
Positive Air Displacement	Extraction Pump	Extraction Port
<u>Electric Submersible</u>	Other _____	Dedicated Tubing
		Other: _____

19.3 (Gals.) X	3	= 57.9 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1420	21.1	7.34	967	52	19.3	
* Well	dewatered		20 gal.		1	
0750	17.9	7.22	991	18	—	

Did well dewater? (Yes) No Gallons actually evacuated: 20.0

Sampling Date: 5/20/14 Sampling Time: 0750 Depth to Water: 26.20

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other McLambell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: Voc's (9200B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-DR1	Client: Treadwell & Rollo
Sampler: Dn	Date: 5/20/14
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 30.55	Depth to Water (DTW): 19.37
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.61	

Purge Method: Bailer	Waterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

1.8 (Gals.) X	3	= 5.4 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1026	20.1	6.59	884	79	1.8	
to well	dew 4 mid		e 2.5 gal		2.5	
1245	19.7	6.52	862	22	5.4	

Did well dewater? Yes No Gallons actually evacuated: 2.5

Sampling Date: 5/20/14 Sampling Time: 1245 Depth to Water: 21.50

Sample I.D.: MW-9 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (82608)

^{Trip Blank} I.D. (if applicable): TB-1 @ Time 070 Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>140520-M1</u>	Client: <u>Treedwell & Rolfe</u>
Sampler: <u>DM</u>	Date: <u>5/20/14</u>
Well I.D.: <u>MW-10</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>33.91</u>	Depth to Water (DTW): <u>17.45</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>20.74</u>	

Purge Method: Bailer	Waterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	<u>Disposable Bailer</u>
Positive Air Displacement	Extraction Pump	Extraction Port
<u>Electric Submersible</u>	Other _____	Dedicated Tubing
Other: _____		

<u>24.2</u> (Gals.) X <u>3</u>	= <u>72.6</u> Gals.	
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1132	20.7	6.61	1090	39	25.0	odor
1137	20.7	6.68	1197	33	50.0	"
1142	20.7	6.69	1198	31	75.0	"

Did well dewater? Yes No Gallons actually evacuated: 75.0

Sampling Date: 5/20/14 Sampling Time: 1150 Depth to Water: 20.59

Sample I.D.: MW-10 Laboratory: Kiff CalScience Other McLoughlin

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: Voc's (2260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-Dri	Client: Treadwell & Rolfe
Sampler: DR	Date: 5/21/14
Well I.D.: MW-15	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 39.06	Depth to Water (DTW): 22.18
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.54	

Purge Method: Bailer Disposable Bailer Positive Air Displacement <u>Electric Submersible</u>	Watterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
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2.7 (Gals.) X 3 = 8.1 Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
0932	19.5	6.39	739	71	2.7	odor
0935	19.7	6.31	748	49	5.4	"
0938	19.8	6.32	749	98	8.1	"

Did well dewater? Yes No Gallons actually evacuated: 8.1

Sampling Date: 5/21/14 Sampling Time: 0945 Depth to Water: 22.78

Sample I.D.: MW-15 Laboratory: Kiff CalScience Other McCombs

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (8260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
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O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV
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WELL MONITORING DATA SHEET

Project #: 140520-Dr	Client: Treadwell & Rolfe
Sampler: DR	Date: 5/21/14
Well I.D.: MW-16A	Well Diameter: (2) 3 4 6 8
Total Well Depth (TD): 29.86	Depth to Water (DTW): 23.64
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 24.88	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

Other: _____

1.0 (Gals.) X 3 = 3.0 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0836	20.0	6.79	700	39	1.0	odor
0838	19.9	6.72	719	71	2.0	"
0840	19.9	6.70	722	97	3.0	"

Did well dewater? Yes No Gallons actually evacuated: 3.0

Sampling Date: 5/21/14 Sampling Time: 0850 Depth to Water: 23.97

Sample I.D.: MW-16A Laboratory: Kiff CalScience Other McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (82608)

^{Tri-BLk} I.D. (if applicable): TB-2 @ Time 0700 Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-201	Client: Treadwell & Rette
Sampler: DR	Date: 5/21/14
Well I.D.: MW-16B	Well Diameter: <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth (TD): 39.49	Depth to Water (DTW): 26.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="radio"/> PVC <input type="radio"/> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.80	

Purge Method: <input type="radio"/> Bailer <input checked="" type="radio"/> Disposable Bailer <input type="radio"/> Positive Air Displacement <input type="radio"/> Electric Submersible	<input type="radio"/> Waterra <input type="radio"/> Peristaltic <input type="radio"/> Extraction Pump <input type="radio"/> Other _____	Sampling Method: <input type="radio"/> Bailer <input checked="" type="radio"/> Disposable Bailer <input type="radio"/> Extraction Port <input type="radio"/> Dedicated Tubing Other: _____
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$2.1 \text{ (Gals.)} \times 3 = 6.3 \text{ Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0858	19.5	6.42	784	66	2.1	odor
0902	19.6	6.29	801	318	4.2	"
* Well dewatered @ 5 gal.						
1115	20.0	6.37	798	122	—	"

Did well dewater? Yes No Gallons actually evacuated: 5.0

Sampling Date: 5/21/14 Sampling Time: 1115 Depth to Water: 28.12

Sample I.D.: MW-16B Laboratory: Kiff CalScience Other: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC'S (8260B)

EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 140520-201	Client: Tracwell & Rella
Sampler: DR	Date: 5/21/14
Well I.D.: MW-17A	Well Diameter: <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 _____
Total Well Depth (TD): 28.51	Depth to Water (DTW): 22.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 23.43	

Purge Method: <input checked="" type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waters <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: <input checked="" type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
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$1.0 \text{ (Gals.)} \times 3 = 3.0 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
1 Case Volume Specified Volumes Calculated Volume																	

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1015	19.2	6.49	1021	317	1.0	
1017	19.6	6.55	1028	308	2.0	
1019	19.7	6.57	1029	342	3.0	

Did well dewater? Yes <input checked="" type="checkbox"/> No	Gallons actually evacuated: 3.0
Sampling Date: 5/21/14	Sampling Time: 1030 Depth to Water: 23.22
Sample I.D.: MW-17A	Laboratory: Kiff CalScience Other <u>McCampbell</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>VOC'S (8260B)</u>	
EB I.D. (if applicable): @ _____ Time	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: 140520-201	Client: Treadwell & Rette
Sampler: DR	Date: 5/21/14
Well I.D.: MW-17B	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): 39.30	Depth to Water (DTW): 22.55
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 25.90	

Purge Method: Bailer	Waters: Waterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	<u>Disposable Bailer</u>
Positive Air Displacement	Extraction Pump	Extraction Port
<u>Electric Submersible</u>	Other _____	Dedicated Tubing
		Other: _____

$2.7 \text{ (Gals.)} \times 3 = 8.1 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														
1 Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1034	19.4	6.87	726	427	2.7	
1038	19.7	6.79	710	503	5.4	
1042	19.7	6.77	707	494	8.1	

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: 8.1	
Sampling Date: 5/21/14	Sampling Time: 1050	Depth to Water: 22.79
Sample I.D.: MW-17B	Laboratory: Kiff CalScience	Other: <u>McCombs</u>
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other: <u>VOC'S (826B)</u>	
EB I.D. (if applicable): @ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5)	Other:	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge: mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 140520-DR1	Client: Treadwell & Rollo
Sampler: DR	Date: 5/20/14
Well I.D.: RW-2	Well Diameter: 2 3 4 6 8
Total Well Depth (TD): 29.47	Depth to Water (DTW): 15.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.63	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
Electric Submersible Other _____ Dedicated Tubing

Other: _____

2.2 (Gals.) X 3 = 6.6 Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1213	20.6	7.11	789	412	2.2	odor
1215	20.7	6.84	786	204	4.4	"
1217	20.6	6.81	789	123	6.6	"

Did well dewater? Yes No Gallons actually evacuated: 6.6

Sampling Date: 5/20/14 Sampling Time: 1225 Depth to Water: 16.02

Sample I.D.: RW-2 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: VOC's (E260B)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

