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By Alameda County Environmental Health at 2:34 pm, Nov 14, 2013

November 12, 2013

Ms. Karel Detterman  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

**Subject:** **Perjury Statement and Report Transmittal**  
1630 Park Street, Parcel B  
Alameda, California 94501  
AEI Project No. 298931  
ACEH RO#0000008

Dear Ms. Detterman:

I declare under penalty of perjury, that the information and/or recommendations contained in the attached report for the above-referenced site are true and correct to the best of my knowledge.

If you have any questions or need additional information, please do not hesitate to call me or Mr. Peter McIntyre at AEI Consultants, (925) 746-6004.

Sincerely,



John Buestad  
President

JB/pm

Attachment: AEI Consultants, *Sampling Summary Report and Workplan for Well Abandonment*

cc: Mr. Peter McIntyre, AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597



November 12, 2013

Alameda County Environmental Health Department  
Attn: Ms. Karel Detterman  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**Subject:** **Sampling Summary Report and Workplan for Well Abandonment**  
1630 Park Street, Parcel B  
Alameda, California  
AEI Project No. 298931  
ACEH Fuel Leak Case No. RO0000008

Dear Ms. Detterman:

AEI Consultants (AEI) has prepared this *Sampling Summary Report and Workplan for Well Abandonment* on behalf of Foley Street Investments (FSI), developer of the subject site (See Figure 1 and Figure 2). The subject of this letter report is the leaking underground storage tank (LUST) case located at the property 1630 Park Street, known as the Good Chevrolet site. The Alameda County Environmental Health Department (ACEH) is the agency with regulatory oversight of the LUST case. This report has been prepared to present a summary of the results of the recent groundwater and soil vapor sampling activities and propose a scope of work to the ACEH to destroy the onsite monitoring wells and soil vapor probes. This work was discussed in the meeting with the ACEH on October 18, 2013. This letter report includes the following:

1. A summary of the October 24, 2013 groundwater monitoring activities at the site;
2. A summary of the October 24, 2013 soil vapor probe installation and sampling activities at the site;
3. A brief workplan for the abandonment of all onsite groundwater/remediation wells (MW-1 to MW-3, DPE-1, DPE-4, DPE-6, and DPE-8 to DPE-11) and soil vapor probes (VP-1 to VP-3, SV-3, SV-4, SV-6 to SV-9, and SV-12 to SV-15) at the site; and
4. Schedule for implementation of these tasks.

As agreed during the October 18, 2013 meeting, this interim report is to notify the ACEH of the results of the recent testing and to expedite well abandonment activities so that redevelopment is not delayed. Supporting documentation and detail will be included in the forthcoming site conceptual model update.

## 1.0 Property Overview

### 1.1 Property Description

The development site consisting of 1600 to 1630 Park Street is an irregularly shaped property totaling approximately 1.46 acres, of which the northern approximately 0.47 acres is the 1630 Park Street site, referred to as Parcel B. The development site is bound by Park Street to the northwest, 1650 Park Street to the northeast, Foley Street to the Southeast, and Tilden Way to the southwest in a mixed commercial and residential area of Alameda, California. Hereinafter, unless otherwise stated, the "site" will refer to Parcel B, the 1630 Park Street property.

The site is currently vacant, being utilized for temporary construction staging, however was formerly improved with a two-story showroom and office building totaling approximately 11,264 square feet and parking lot which was until approximately 2008 occupied by Good Chevrolet. Good Chevrolet also occupied the 1600 to 1618 property to the south, which is under redevelopment. Refer to Figure 2 for the property layout and major site features.

### 1.2 Planned Development Project

FSI plans to construct an approximately 7,280 square foot slab-on-grade commercial building on the western side of the site along Park Street. The remainder of the development site will be improved with paved at-grade parking areas and landscaping.

### 1.3 Site Conditions

During the October 18, 2013 meeting between AEI, FSI, and the ACEH, current site conditions were discussed, including the preliminary results of the October 2013 source removal excavation activities. The data from the excavation samples confirms that the majority of the hydrocarbon source, including the light non-aqueous phase liquid (LNAPL) and volatile organics had been successfully removed.

Furthermore, the ACEH requested that an additional groundwater and soil vapor testing event be performed to verify that residual dissolved phase and vapor phase impact was reduced and stable following the excavation. As discussed in the meeting, subject to favorable data, this would allow for decommissioning of the on-site wells and soil vapor probes, in lieu of immediate close closure, such that construction schedules could be kept.

The following is a brief summary of the recently completed source removal, and soil vapor and groundwater sampling. Given that results of the soil vapor and groundwater sampling indicate successful removal of source soil, a workplan to abandon the on-site monitoring wells and soil vapor probes is included.

## 2.0 Recent Site Activities

### 2.1 Source Removal

Between October 1, 2013 and October 11, 2013, AEI performed excavation of impacted soil at the site. The excavation was initially opened to approximately 20 feet wide by 35 feet long to depths ranging from approximately 10 to 12.5 feet below ground surface (bgs). The excavation was expanded horizontally based on PID readings, site observations, and laboratory analytical

data to its final extents, approximately 30 feet long by 21 feet wide in the southern portion and 40 feet wide in the northern portion (Figure 3). The northeast corner of the excavation connected with the 2012 excavation of the former UST cavity area. During the source removal activities, a total of approximately 946 tons of soil and 3,460 gallons of groundwater were removed from the site and properly disposed of.

A total of 20 soil samples were analyzed at depths ranging from 3 to 12.5 feet bgs. Results of the confirmation soil sampling activities document removal of remaining high-concentration source, and are included on Tables 2 and 3 with select analytical data included in Figure 3. Complete analytical data is included in the laboratory analytical reports in Appendix A.

## 2.2 Groundwater Monitoring

On October 24, 2013, AEI mobilized to the site to complete groundwater monitoring and sampling activities. Groundwater monitoring and sampling activities were performed on all existing monitoring and extraction wells (MW-1 to MW-5, DPE-1, DPE-4, DPE-6, and DPE-8 to DPE-11). Groundwater sampling was accomplished using a peristaltic pump and low-flow purge techniques, and once the field parameters stabilized, groundwater samples were collected directly from the discharge side of a peristaltic pump. The groundwater samples were delivered, under proper chain of custody protocol and within hold time, to McCampbell Analytical, Inc. of Pittsburg, California (Department of Health Services Certification #1644) for analysis.

The groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as gasoline (TPH-g) by EPA Method SW8015B Modified;
- TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) by EPA Method SW8015B with silica gel clean-up; and
- Volatile organic compounds (VOCs) by EPA Method SW8260B.

Based on the review of the analytical data (see Figure 4 and Tables 4 and 5), the following conclusions can be made:

- Hydrocarbon concentrations are similar to recent events which continue to demonstrate a long term decrease in plume magnitude and extent.
- The concentrations of tetrachloroethene (PCE) and its daughter products were similar to those detected during the prior groundwater monitoring event.
- Results of testing for off-site downgradient wells MW-4 and MW-5 show attenuation of the PCE and daughter products measured in on-site wells.
- Source removal accomplished in the area described above has removed potential longer-term on-site sources of PCE to groundwater.

Groundwater analytical results are included on Tables 4 and 5 with copies of the laboratory analytical reports included in Appendix A.

## 2.3 Soil Vapor Sampling

On October 24, 2013, AEI installed three additional soil vapor monitoring probes (SV-13 to SV-15) surrounding the recent excavation. The borings were installed to a depth of approximately 6 feet below current grade, which translates to approximately 5 feet below the proposed

building foundation. The probes were installed and constructed using the same techniques as during the recent probe installation (SV-8 to SV-12), as discussed with the ACEH.

Following installation, and the appropriate equilibration time (at least 2 hours), AEI collected a soil vapor sample from each of the existing soil vapor probes (SV-3, SV-4, SV-6 to SV-9, and SV-12 to SV-15). The samples were each collected utilizing a helium shroud, provided by McCampbell, for leak detection and by using the general methods described in AEI's *Soil Vapor Investigation Workplan* dated April 4, 2013. The soil vapor samples were analyzed for TPH-g and VOCs by TO15 at McCampbell Analytical.

Based on the review of the soil vapor analytical data (see Figure 5 and Table 6), the following conclusions can be made:

- Concentrations of TPH-g, benzene, toluene, ethylbenzene, and xylenes were not detected above the commercial environmental screening levels (ESLs) and are orders of magnitude below Low Threat Closure criteria.
- Concentrations of HVOCs were not detected above the ESLs. PCE and trichloroethene (TCE) concentrations were detected at concentrations up to 500 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 29  $\mu\text{g}/\text{m}^3$ , respectively.
- Concentrations of PCE and TCE in soil vapor probes sampled earlier are consistent with previous results, and less than 25% of the commercial ESL values.

Soil vapor analytical details are included on Table 6 with copies of the laboratory analytical reports included in Appendix A.

### **3.0 Proposed Well Abandonment Activities**

It was discussed during the October 18, 2013 meeting that if the concentrations of contaminants in groundwater were stable and HVOOC concentrations in soil vapor were significantly below the applicable ESLs, no further on-site groundwater or soil vapor monitoring would be necessary and all on-site wells could be decommissioned. Based on the findings summarized herein, the results of groundwater and soil vapor testing confirm that no further on-site testing is warranted prior to initiation of site development. It was agreed to retain off-site monitoring wells MW-4 and MW-5, pending completion and review of an updated site conceptual model. Therefore, the following scope of work is presented to abandon the on-site sampling wells and soil vapor probes. Monitoring and Extraction Well Abandonment A total of ten onsite monitoring and extraction wells are proposed to be abandoned (MW-1 to MW-3, DPE-1, DPE-4, DPE-6, and DPE-8 to DPE-11) to accommodate the proposed redevelopment activities. The wells will be abandoned under permit from the Alameda County Public Works Agency (ACPWA). The wells will be pressure grouted in-place as permitted by the ACPWA.

#### **3.1 Soil Vapor Probe Abandonment**

A total of thirteen onsite soil vapor probes (VP-1 to VP-3, SV-3, SV-4, SV-6 to SV-9, and SV-12 to SV-15) will also be abandoned to accommodate the proposed redevelopment activities. The probes will be abandoned under permit from the ACPWA. The soil vapor probes are up to 6.5

feet deep, and will be physically removed and backfilled with neat cement under approval of the ACPWA.

#### 4.0 Schedule of Abandonment

As stated above, grading activities for the redevelopment on Parcel B are anticipated to begin on December 1, 2013. Therefore, AEI plans to complete the abandonment activities during the week of November 18, 2013, pending ACEH approval. We look forward to your response regarding this request.

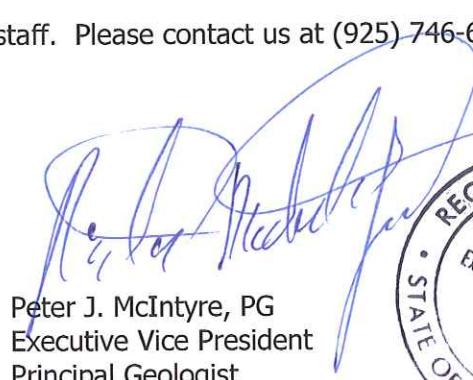
#### 5.0 Report Limitations

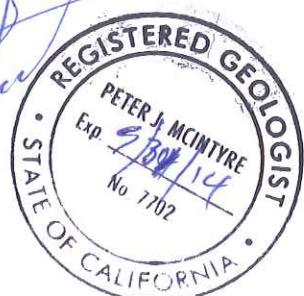
This report has been prepared by AEI Consultants relating to the property located at 1630 Park Street, in the City of Alameda, Alameda County, California. This report includes a summary of site conditions and relies heavily on information obtained from public records and other resources; AEI makes no warrantee that the information summarized in this report includes consideration of all possible resources or information available for the site, whether referenced or not. Material samples have been collected and analyzed, and where appropriate, conclusions drawn and recommendations made based on these analyses and other observations. This report may not reflect subsurface variations that may exist between sampling points. These variations cannot be fully anticipated, nor could they be entirely accounted for, in spite of exhaustive additional testing. This document should not be regarded as a guarantee that no further contamination, beyond that which could have been detected within the scope of past investigations is present beneath the property or that all contamination present at the site will be identified, treated, or removed. Undocumented, unauthorized releases of hazardous material(s) and petroleum products, the remains of which are not readily identifiable by visual inspection and/or are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation and may or may not become apparent at a later time. This document may contain estimates of costs for various activities that could be implemented at the site. Such estimates are based on reasonably expected costs for similar activities; however, AEI provides no guarantee implicit or explicit that costs will not be significantly higher or lower than those estimated. All specified work has been performed in accordance with generally accepted practices in environmental engineering, geology, and hydrogeology and performed under the direction of appropriate California registered professionals.

We welcome comments and questions from ACEH staff. Please contact us at (925) 746-6000.

Sincerely,  
**AEI Consultants**

  
Jeremy Smith  
Sr. Project Manager

  
Peter J. McIntyre, PG  
Executive Vice President  
Principal Geologist



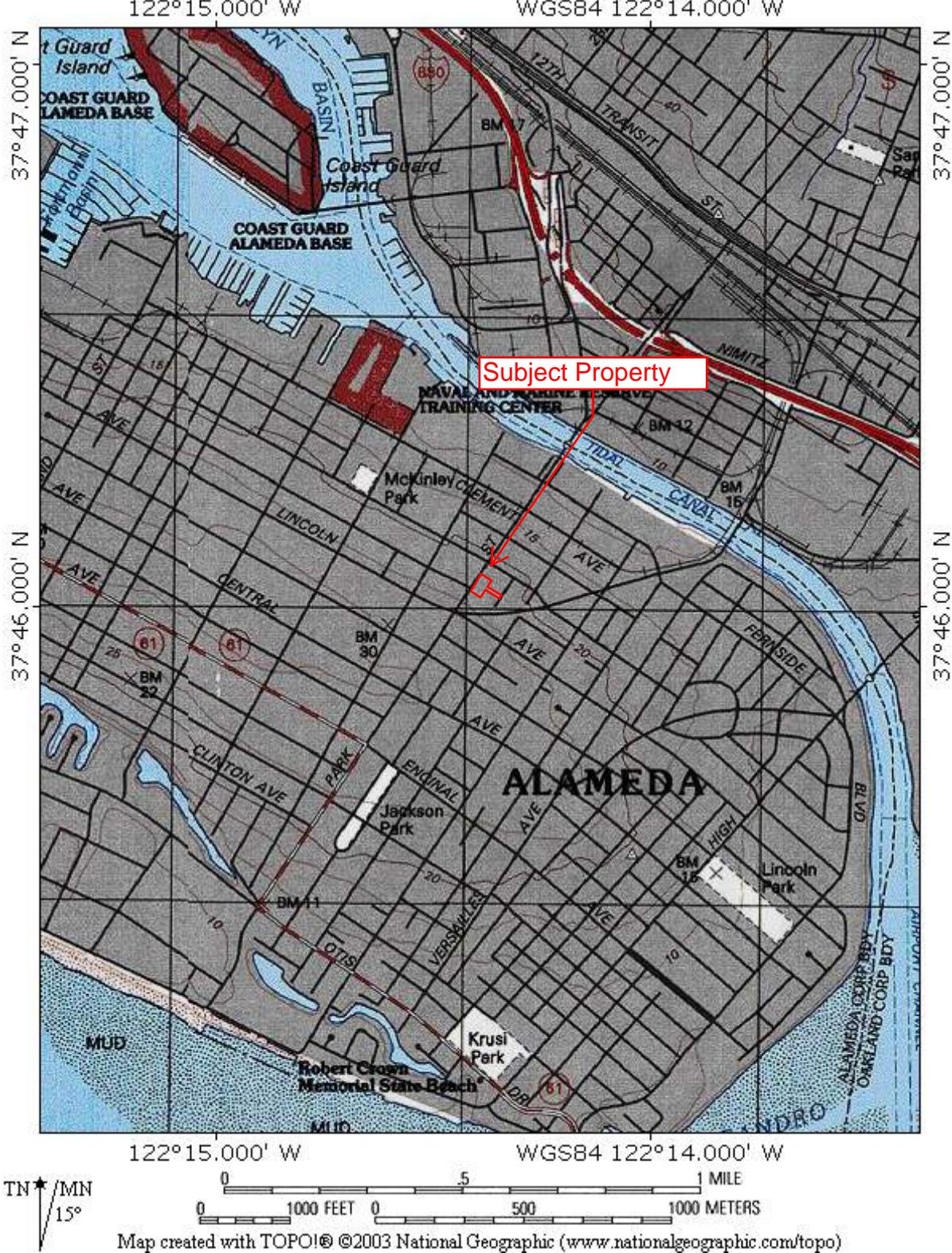
**Attachments:**

- |            |   |
|------------|---|
| Figure 1   | Site Location Map                                 |
| Figure 2   | Site Plan – Parcel B                              |
| Figure 3   | Excavation Analytical Data – 2013                 |
| Figure 4   | Select Groundwater Analytical Data                |
| Figure 5   | Soil Vapor Analytical Data                        |
| Table 1    | Well Construction Details                         |
| Table 2    | Soil Sample Analytical Data – TPH and MBTEX       |
| Table 3    | Soil Sample Analytical Data – VOCs                |
| Table 4    | Groundwater Analytical Data – TPH, MBTEX and Lead |
| Table 5    | Groundwater Analytical Data – VOCs                |
| Table 6    | Soil Vapor Sample Analytical Data                 |
| Appendix A | Laboratory Analytical Reports                     |

**Distribution:**

John Buestad, Foley Street Investments  
Karel Detterman, Alameda County Environmental Health Department (FTP Upload)  
GeoTracker (Upload)

## **FIGURES**



## SITE LOCATION MAP

1600-1650 Park Street

Alameda, California 94501

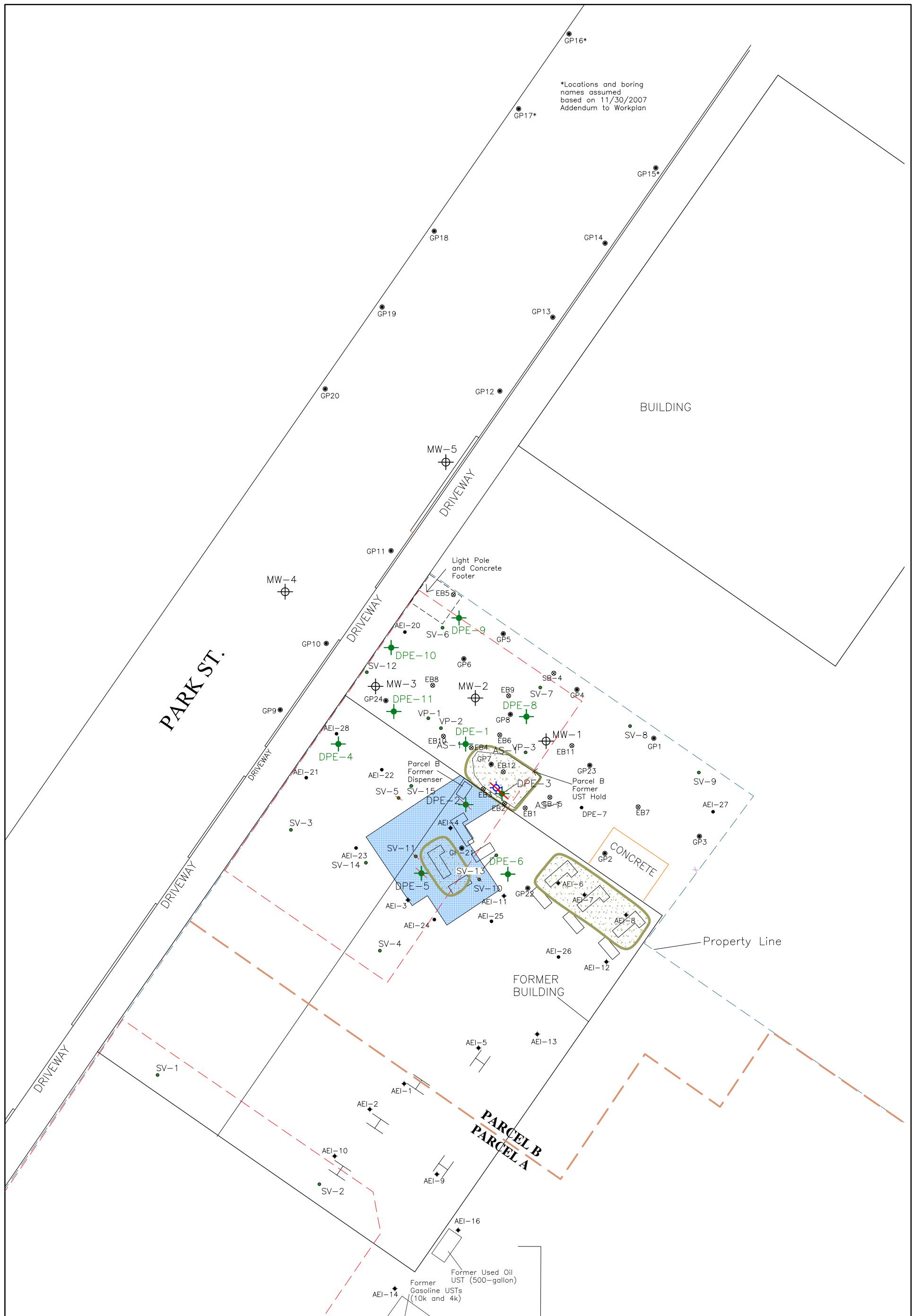


FIGURE 1

Project Number: 298931

Source: USGS

**AEI**  
Consultants



N  
W E  
S  
0 15 30  
Scale: 1" = 30'

#### LEGEND

- Existing / Destroyed Remediation Well
- AEI Soil Boring (1/12)
- Existing / Destroyed Vapor Probe
- AEI Soil Boring (7/11)
- Soil Boring (2008)
- Soil Boring (Pre-1997)
- Groundwater Monitoring Well
- Parcel Split

DRAFTED BY JAS 3-2-12  
REVISED BY JAS 10-16-13

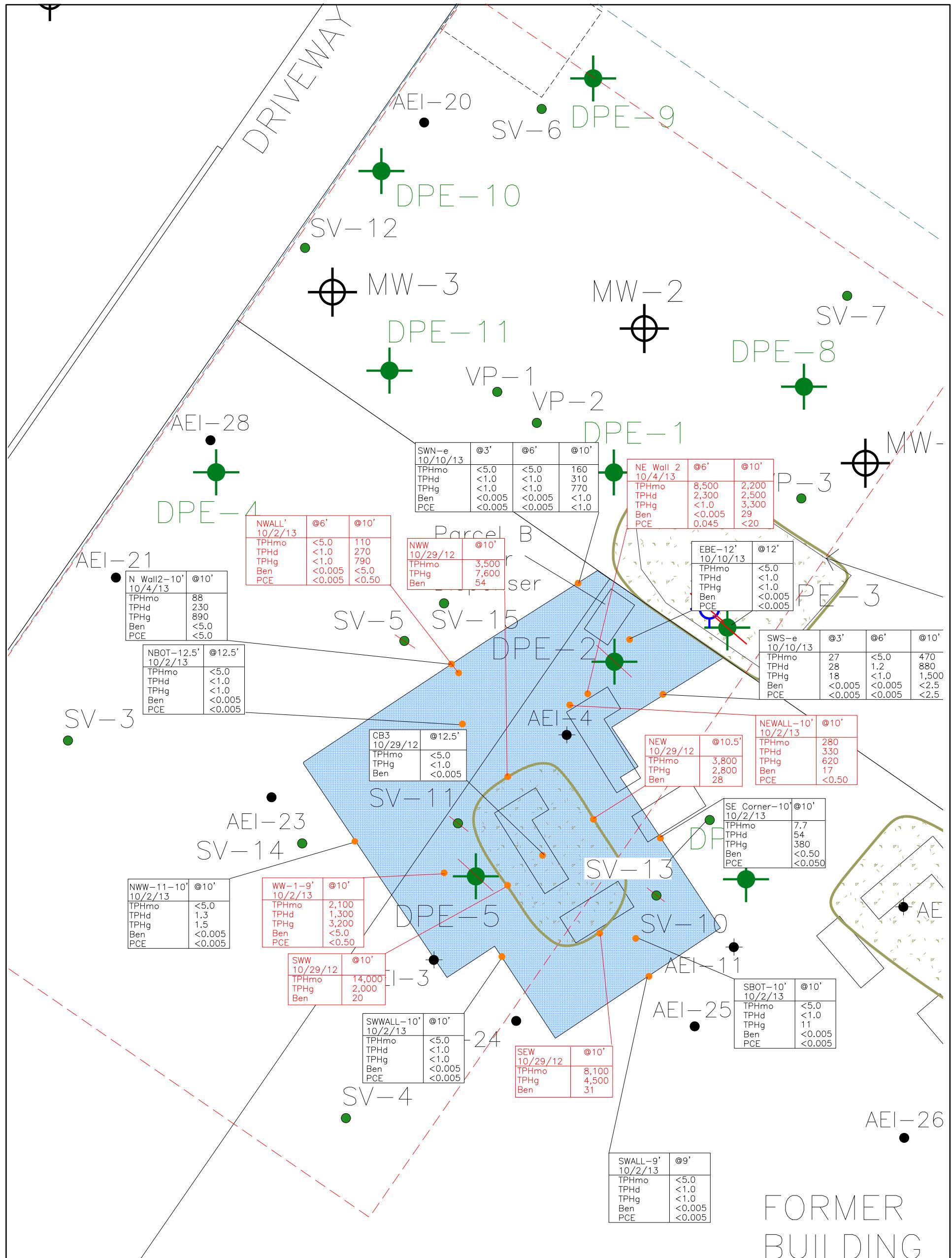
2013  
Excavation

**AEI CONSULTANTS**  
2500 CAMINO DIABLO, WALNUT CREEK

#### SITE PLAN - PARCEL B

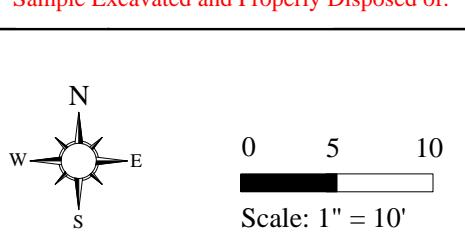
1620-1640 PARK STREET  
ALAMEDA, CALIFORNIA

**FIGURE 2**  
PROJECT NO. 298931



TPHmo = Total Petroleum Hydrocarbons as Motor Oil  
TPHd = Total Petroleum Hydrocarbons as Diesel  
TPHg = Total Petroleum Hydrocarbons as Gasoline  
Ben = Benzene  
PCE = Tetrachloroethene

All results in milligrams per kilogram (mg/kg)  
Sample Excavated and Properly Disposed of.



**LEGEND**

- Existing/Destroyed Remediation Well
- AEI Soil Boring (1/12)
- Existing/Destroyed Vapor Probe
- AEI Soil Boring (7/11)
- Groundwater Monitoring Well
- Grab Sample
- Proposed Building

DRAFTED BY JAS 3-2-12  
REVISED BY JAS 9-3-13

2012 Excavation

2013 Excavation

Former Hydraulic Lift

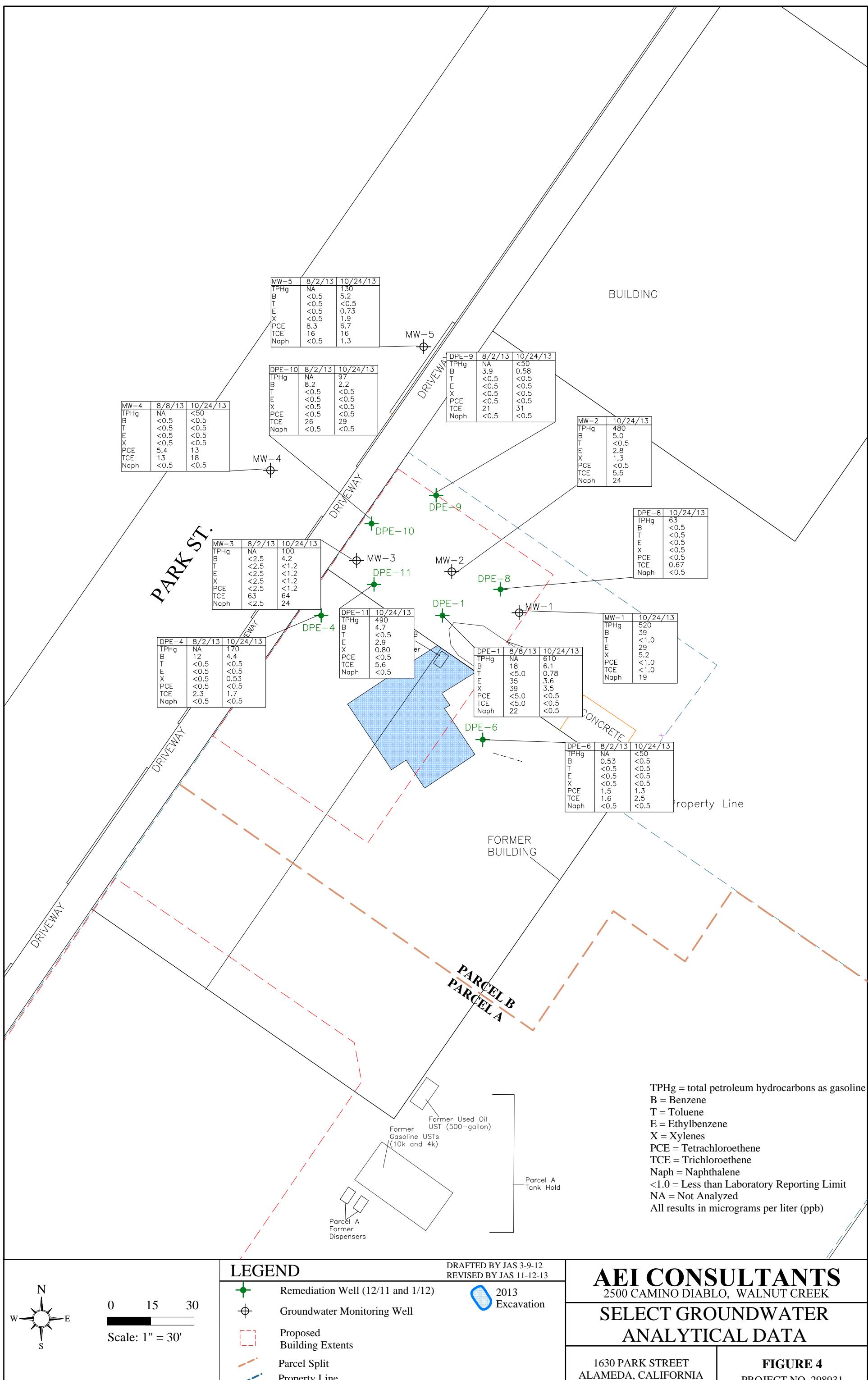
Former Hydraulic Lift

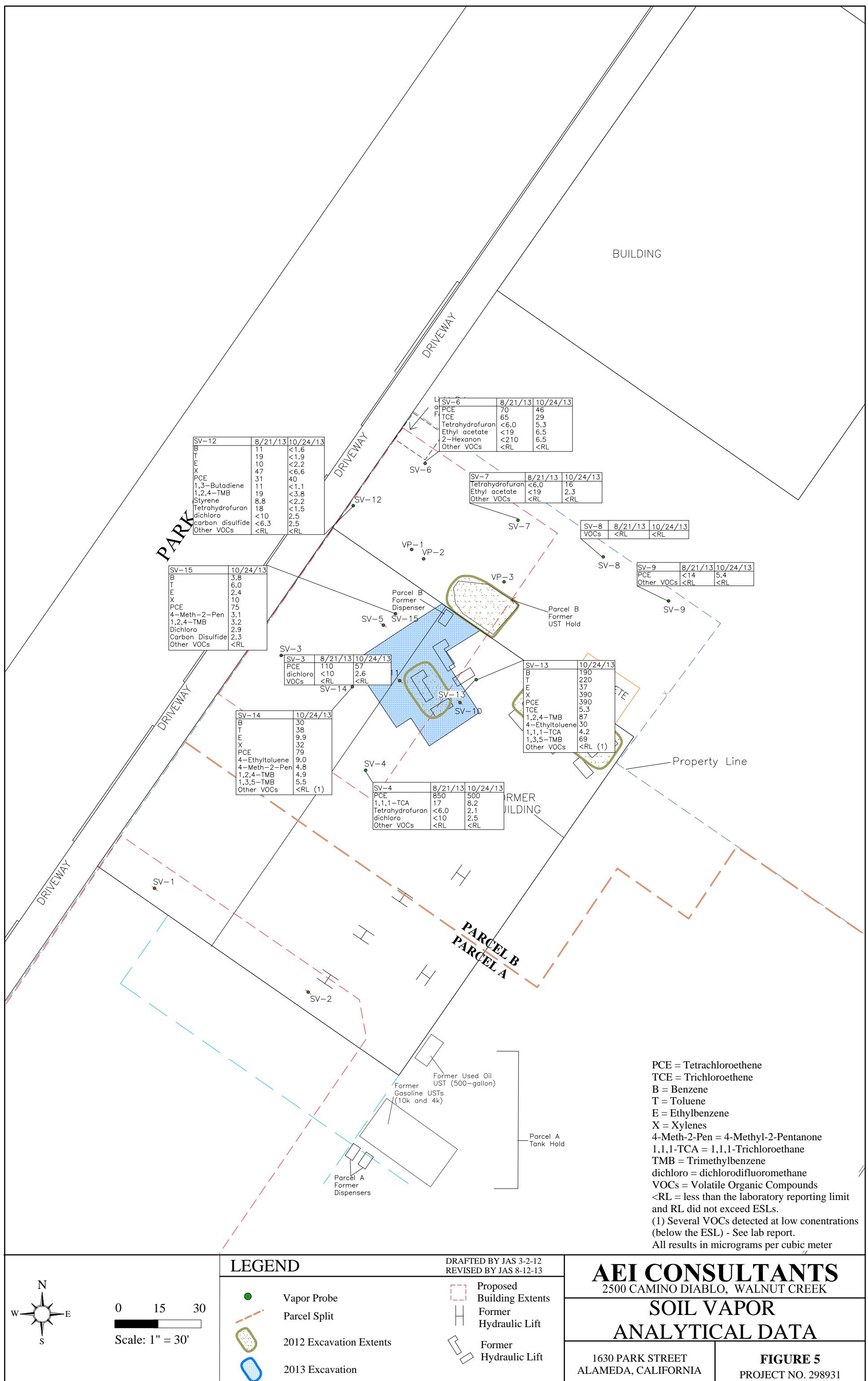
**AEI CONSULTANTS**  
2500 CAMINO DIABLO, WALNUT CREEK

**EXCAVATION ANALYTICAL DATA - 2013**

1620-1640 PARK STREET ALAMEDA, CALIFORNIA

**FIGURE 3**  
PROJECT NO. 298931





## **TABLES**

**Table 1**  
**Well Construction Details**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Well ID Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
AS-1	11/14/2011	-	PVC	25	25	8	2	20-25	0.02	20-25	#3 Sand
DPE-1	11/15/2011	25.88	PVC	16	15	10	4	7 - 15	0.01	6.5 - 16	#2/12 Sand
DPE-2	11/15/2011	26.22	PVC	16	15	10	4	7-15	0.01	6.5-16	#2/12 Sand
DPE-3	11/14/2011	25.27	PVC	16	14	10	4	7-14	0.01	6.5-16	#2/12 Sand
DPE-4	1/19/2012	26.06	PVC	17	17	10	4	8 - 17	0.01	7.5 - 17	#2/12 Sand
DPE-5	1/20/2012	26.25	PVC	18	18	10	4	8-18	0.01	7.5-18	#2/12 Sand
DPE-6	1/20/2012	26.13	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-8	1/20/2012	25.36	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-9	1/20/2012	25.09	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
DPE-10	1/20/2012	25.14	PVC	17	17	10	4	8 - 17	0.01	7.5 - 17	#2/12 Sand
DPE-11	1/20/2012	25.57	PVC	18	18	10	4	8 - 18	0.01	7.5 - 18	#2/12 Sand
MW-1	1/15/1987	25.37	PVC	-	20	8	2	5 - 20	-	-	-
MW-2	1/15/1987	25.48	PVC	-	20	8	2	5 - 20	-	-	-
MW-3	1/15/1987	25.13	PVC	-	20	8	2	5 - 20	-	-	-
MW-4	4/20/1994	25.58	PVC	-	23	8	2	8 - 23	-	-	-
MW-5	4/20/1994	24.31	PVC	-	22	8	2	7 - 22	-	-	-
VP-1	12/6/2011	-	Nyla/SS	6	6	1.25	1/4	5.1 - 5.6	Mesh	4.7 - 6	#30 Mesh Sand
VP-2	12/6/2011	-	Nyla/SS	5.9	5.9	1.25	1/4	5.1-5.6	Mesh	4.7-5.9	#30 Mesh Sand
VP-3	12/6/2011	-	Nyla/SS	5.75	5.75	1.25	1/4	5.1-5.6	Mesh	4.7-5.75	#30 Mesh Sand
SV-1	4/16/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-2	4/17/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-3	4/18/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-4	4/19/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-5	4/20/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand

**Table 1**  
**Well Construction Details**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Well ID Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
SV-6	4/21/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-7	4/22/2013	-	Nyla/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-8	8/5/2013	-	Teflon/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-9	8/5/2013	-	Teflon/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-10	8/5/2013	-	Teflon/SS	5.0	5.0	2.0	1/4	4.6-4.5	Mesh	5.0-4.0	#30 Mesh Sand
SV-11	8/21/2013	-	Teflon/SS	6.5	6.5	2.0	1/4	6.0-5.9	Mesh	6.5-5.5	#30 Mesh Sand
SV-12	8/21/2013	-	Teflon/SS	6.5	6.5	2.0	1/4	6.0-5.9	Mesh	6.5-5.5	#30 Mesh Sand
SV-13	10/24/2013	-	Teflon/SS	6.1	6.1	1.5	1/4	6.0-5.9	Mesh	6.1-5.1	#30 Mesh Sand
SV-14	10/24/2013	-	Teflon/SS	6.1	6.1	1.5	1/4	6.0-5.9	Mesh	6.1-5.1	#30 Mesh Sand
SV-15	10/24/2013	-	Teflon/SS	6.1	6.1	1.5	1/4	6.0-5.9	Mesh	6.1-5.1	#30 Mesh Sand

PVC = polyvinyl chloride

Nyla/SS = Nylaflow tubing with stainless-steel tip

TOC = top of casing

"-" = not available

Well Destroyed

**Table 2**  
**Soil Sample Analytical Data**  
**TPH and MBTEX**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg) EPA Method SW8021B/8015B/m	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
MW-1-10	1/15/1987	10	24	-	-	-	2.9	3.6	-	1.8
MW-1-15	1/15/1987	15	<1.0	-	-	-	<0.1	<0.1	-	<0.1
MW-2-5	1/15/1987	5	<1.0	-	-	-	<0.1	<0.1	-	<0.1
MW-2-10	1/15/1987	10	350	-	-	-	14	22	-	23
MW-3-10	1/15/1987	10	200	-	-	-	9.8	16	-	16
MW-3-15	1/15/1987	15	<1.0	-	-	-	<0.1	<0.1	-	<0.1
SB-5-10	1/15/1987	10	6.5	-	-	-	<0.1	0.22	-	<0.1
EB1-S2	10/15/1993	8.5	510	-	-	-	0.89	10	5.8	41
EB1-S3	10/15/1993	11	2,300	-	-	-	22	190	57	280
EB2-2S	10/15/1993	10	15,000	-	-	-	84	710	260	1,400
EB2-S3	10/15/1993	11.5	200	-	-	-	4.3	15	3.9	20
EB3-S2	10/15/1993	10	2,200	-	-	-	9.4	71	42	200
EB3-S3	10/15/1993	12.5	610	-	-	-	1.2	3.2	4.5	2.9
EB4-S2	10/15/1993	8	4,900	-	-	-	32	230	84	440
EB4-S3	10/15/1993	10.5	7,600	-	-	-	60	390	130	630
EB5-S2	10/15/1993	9	1,800	-	-	-	<2.5	22	27	140
EB5-S3	10/15/1993	11.5	14	-	-	-	0.021	1.5	0.49	2.5
EB6-S2	10/15/1993	8.5	6,800	-	-	-	20	230	100	590
EB7-S2	10/15/1993	6.5	<1.0	-	-	-	<0.005	<0.005	<0.005	<0.005
EB7-S3	10/15/1993	8.5	1,000	-	-	-	3.8	45	21	110
MW4-S1	4/20/1994	4.5	<1.0	-	-	-	<0.005	<0.005	<0.005	0.013
MW4-S2	4/20/1994	9	9.7	-	-	-	1.1	0.82	0.42	1.3
MW4-S3	4/20/1994	14	<1.0	-	-	-	<0.005	0.008	<0.005	0.022
MW5-S1	4/20/1994	4.5	<1.0	-	-	-	<0.005	<0.005	<0.005	<0.5
MW5-S2	4/20/1994	9	1,100	-	-	-	12	43	20	93
MW5-S3	4/20/1994	14	1.1	-	-	-	0.033	0.17	0.044	0.22
EB8-S2	1/21/1997	9.5	2,000	-	-	<4	8.4	83	44	210
EB8-S3	1/21/1997	13.5	18	-	-	0.10	3.2	1.2	0.47	1.7
EB9-S1	1/21/1997	6.5	1.8	-	-	<5	0.071	0.052	0.026	0.074
EB9-S2	1/21/1997	9.5	1,300	-	-	<4	7.1	54	29	130
EB10-S1	1/21/1997	8.5	2,300	-	-	9.3	9.1	100	50	190
EB11-S1	1/21/1997	9.5	3,800	-	-	<9	8.8	190	97	510
EB11-S2	1/21/1997	12	13	-	-	<0.1	1.1	1.6	0.47	1.4
EB12-S1	1/21/1997	9.5	300	-	-	<0.6	0.95	0.59	3.5	18
EB12-S2	1/21/1997	12	1,300	-	-	6.2	9.4	23	35	130

**Table 2**  
**Soil Sample Analytical Data**  
**TPH and MBTEX**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg) EPA Method SW8021B/8015B/m	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
GP1-11.5	4/29/2008	11.5	130	-	-	<0.005	<0.10	0.29	<0.10	0.42
GP1-15	4/29/2008	15	<1.0	-	-	<0.005	<0.005	0.0081	0.0065	0.028
GP2-11	4/29/2008	11	120	-	-	<0.010	<0.050	0.87	0.43	1.2
GP2-13.5	4/29/2008	13.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP3-6.75	4/29/2008	6.75	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP3-11.5	4/29/2008	11.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP4-11.5	4/29/2008	11.5	2.7	-	-	<0.005	0.14	0.052	0.072	0.17
GP4-14.5	4/29/2008	14.5	99	-	-	<0.020	0.48	1.4	1.0	4.5
GP5-11.5	4/29/2008	11.5	4.6	-	-	<0.005	0.12	0.078	0.14	0.48
GP5-19	4/29/2008	19	1.5	-	-	<0.005	<0.005	0.022	0.0069	0.032
GP6-11	4/29/2008	11	130	-	-	<0.10	0.11	1.0	1.1	5.4
GP7-8	4/30/2008	8	390	-	-	<0.050	0.84	2.2	4.3	18
GP7-19.5	4/30/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP8-8.5	5/1/2008	8.5	1,100	-	-	<0.050	<0.10	3.2	7.3	45
GP8-19.5	5/1/2008	19.5	5.8	-	-	<0.005	0.0091	0.067	0.048	0.21
GP9-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP9-11.25	5/1/2008	11.25	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP10-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP10-19.5	4/30/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP11-6	4/30/2008	6	<1.0	-	-	<0.005	<0.005	0.011	0.0053	0.026
GP11-15.5	4/30/2008	15.5	2,100	-	-	<0.10	5.7	71	38	180
GP11-18	4/30/2008	18	87	-	-	<0.020	0.059	0.93	0.67	4.2
GP12-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP12-11	4/30/2008	11	4.7	-	-	<0.005	0.015	0.21	0.067	0.32
GP12-15.5	4/30/2008	15.5	<1.0	-	-	<0.005	<0.005	0.0071	0.0051	0.025
GP13-7.25	4/30/2008	7.25	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP13-11	4/30/2008	11	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP13-14	4/30/2008	14	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP14-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP14-11	4/30/2008	11	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP15-7.5	4/30/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP16-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP16-10.5	5/1/2008	10.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP17-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP17-11.5	5/1/2008	11.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005

**Table 2**  
**Soil Sample Analytical Data**  
**TPH and MBTEX**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg) EPA Method SW8021B/8015B/m	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
GP18-7.5	5/1/2008	7.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP18-10	5/1/2008	10	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP19-7	5/1/2008	7	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP20-8	5/1/2008	8	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP21-7.5	5/2/2008	7.5	2.1	-	-	<0.005	0.006	0.028	0.012	0.065
GP21-15.5	5/2/2008	15.5	<1.0	-	-	<0.005	0.0064	0.022	0.0057	0.027
GP21-19.5	5/2/2008	19.5	<1.0	-	-	<0.005	<0.005	0.0092	<0.005	0.023
GP22-10.5	5/2/2008	10.5	1,100	-	-	<0.20	0.67	13	15	70
GP22-15.5	5/2/2008	15.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
GP23-7.5	5/2/2008	7.5	53	-	-	<0.005	<0.050	0.13	<0.050	0.37
GP23-11.5	5/2/2008	11.5	1.9	-	-	<0.005	0.062	0.041	0.043	0.18
GP23-16	5/2/2008	16	2	-	-	<0.005	<0.005	0.027	0.018	0.099
GP24-8.5	5/2/2008	8.5	3,600	-	-	<1.0	1.2	32	62	410
GP24-19.5	5/2/2008	19.5	<1.0	-	-	<0.005	<0.005	<0.005	<0.005	<0.005
AEI-3-7'	7/25/2011	7	1,200	1,700	4,000	<10	2.6	25	10	48
AEI-3-15'	7/25/2011	15	<1.0	1.6	<5.0	<10	<0.005	<0.005	<0.005	<0.005
AEI-4-7'	7/25/2011	7	5,100	2,100	710	<50	6.2	83.0	54.0	280.0
AEI-4-15'	7/25/2011	15	1.2	1.3	<5.0	<0.05	0.029	0.071	0.031	0.17
AEI-6-7'	7/25/2011	7	470	10,000	24,000	<5.0	<0.50	<0.50	<0.50	<0.50
AEI-6-14'	7/25/2011	14	<1.0	1.4	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50
AEI-7-7'	7/25/2011	7	100	6,300	14,000	-	-	-	-	-
AEI-7-13'	7/25/2011	13	<1.0	3.7	7.4	<5.0	<0.50	<0.50	<0.50	<0.50
AEI-8-7'	7/25/2011	7	<1.0	720	2,900	-	-	-	-	-
AEI-8-14'	7/25/2011	14	<1.0	<1.0	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50
AEI-11-3'	7/26/2011	3	<1.0	2.2	8.5	-	-	-	-	-
AEI-12-3'	7/26/2011	3	<1.0	2.6	<5.0	-	-	-	-	-
AEI-13-3'	7/26/2011	3	<1.0	4.2	<5.0	-	-	-	-	-
AEI-20-7.5'	1/17/2012	7.5	8.4	-	-	<0.05	0.0071	0.084	0.069	0.38
AEI-20-11'	1/17/2012	11	600	-	-	<0.50	0.89	2.9	10	39
AEI-20-15'	1/17/2012	15	3.3	-	-	<0.05	<0.005	0.028	<0.005	0.017
AEI-21-7'	1/17/2012	7	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-21-11'	1/17/2012	11	46	-	-	<0.05	0.020	0.42	0.27	0.60
AEI-21-14'	1/17/2012	14	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-22-9'	1/17/2012	9	3,100	-	-	<0.05	3.2	46	62	400
AEI-22-11'	1/17/2012	11	8.6	-	-	<0.10	0.71	0.77	0.31	1.3
AEI-22-14'	1/17/2012	14	3,300	-	-	<0.05	8.3	84	61	370

**Table 2**  
**Soil Sample Analytical Data**  
**TPH and MBTEX**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg) EPA Method	Benzene (mg/kg) SW8021B/8015B/m	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
AEI-23-6'	1/17/2012	6	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-23-9.5'	1/17/2012	9.5	7.5	100	180	<0.05	<0.005	0.027	<0.005	0.0055
AEI-23-12.5'	1/17/2012	12.5	460	360	270	<5.0	<0.50	1.4	<0.50	0.80
AEI-24-7'	1/17/2012	7	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-24-10.5'	1/17/2012	10.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-24-13'	1/17/2012	13	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-25-7.5'	1/17/2012	7.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-25-10'	1/17/2012	10	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-25-14'	1/17/2012	14	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-26-7.5'	1/17/2012	7.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-26-10.5'	1/17/2012	10.5	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-26-14'	1/17/2012	14	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-27-3'	1/17/2012	3	<1.0	3.2	7.9	<0.05	<0.005	<0.005	<0.005	0.013
AEI-28-7'	1/17/2012	7	<1.0	<1.0	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
AEI-28-11'	1/17/2012	11	12,000	2,100	44	<10	21	210	210	1,000
AEI-28-13'	1/17/2012	13	7.8	2.0	<5.0	<0.05	0.050	0.29	0.31	1.4
DPE-1, 7-7.5'	11/15/2011	7	1,800	330	46	<50	9.7	64	29	150
DPE-2, 8-8.5'	11/15/2011	8	2,200	280	140	<15	7.6	57	34	170
DPE-3, 8-8.5'	11/14/2011	8	2,000	1,000	58	<50	6.7	48	47	240
DPE-5, 11'	1/20/2012	11	2,300	-	-	<10	15	99	33	140
DPE-5, 14'	1/20/2012	14	1.1	-	-	<0.05	<0.005	0.17	<0.005	0.016
DPE-6, 10'	1/20/2012	10	510	-	-	<1.0	<0.10	0.14	0.47	0.96
DPE-6, 14'	1/20/2012	14	<1.0	-	-	<0.05	<0.005	<0.005	<0.005	<0.005
DPE-7, 10'	1/19/2012	10	2,200	-	-	<5.0	<5.0	16	47	240
DPE-7, 14.5'	1/19/2012	14.5	610	-	-	<5.0	<5.0	3.9	9.5	55
<b><u>October 2012 Excavation Activities</u></b>										
EB1-15'	10/22/2012	15	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
SW1-10'	10/22/2012	10	110	-	15	<1.0	<0.10	<0.10	<0.10	4.1
WW1-11'	10/22/2012	11	7.1	-	<5.0	<0.05	0.0084	<0.005	0.013	0.17
EW1-11.5'	10/22/2012	11.5	4.0	-	<5.0	<0.05	0.16	0.22	0.21	0.71
NW1-12'	10/22/2012	12	8.6	-	<5.0	<0.05	0.18	0.40	0.35	1.5
SEW2-9'	10/23/2012	9'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
EB2-11.5'	10/23/2012	11.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
EW2-9.5'	10/23/2012	9.5'	<1.0	-	23	<0.05	<0.005	<0.005	<0.005	<0.005
NEW2-9.5'	10/23/2012	9.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
CB2-11.5'	10/23/2012	11.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
CSW2-9.5'	10/23/2012	9.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
WB2-11.5'	10/23/2012	11.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005

**Table 2**  
**Soil Sample Analytical Data**  
**TPH and MBTEX**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	TPH-g (mg/kg)	TPH-d* (mg/kg)	TPH-mo* (mg/kg)	MTBE (mg/kg) EPA Method SW8021B/8015B/m	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
SWW2-9.5'	10/23/2012	9.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
WW2-9.5'	10/23/2012	9.5'	1,400	-	3,400	<5.0	<0.50	<0.50	42	180
WW2-6.5'	10/23/2012	6.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
NWW2-9.5'	10/23/2012	9.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
CNW2-9.5'	10/23/2012	9.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
CB3-12.5'	10/29/2012	12.5'	<1.0	-	<5.0	<0.05	<0.005	<0.005	<0.005	<0.005
SEW-10'	10/29/2012	10'	4,500	-	8,100	<25	31	270	100	460
NWW-10'	10/29/2012	10'	7,600	-	3,500	<50	54	410	150	680
NEW-10.5'	10/29/2012	10.5'	2,800	-	3,800	<5.0	28	180	65	290
SWW-10'	10/29/2012	10'	2,000	-	14,000	<5.0	20	110	33	100

**October 2013 Excavation Activities**

SE Corner-10'	10/2/2013	10'	380	54	7.7	<0.50	<0.50	1.1	2.1	10
NWW-11-10'	10/2/2013	10'	1.5	1.3	<5.0	<0.005	<0.005	<0.005	<0.005	0.024
WW-1-9'	10/2/2013	9'	3,200	1,300	2,100	<5.0	<5.0	80	55	230
NWALL-6'	10/2/2013	6'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
NWALL-10'	10/2/2013	10'	790	270	110	<5.0	<5.0	22	27	110
NBOT-12.5	10/2/2013	12.5'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SBOT-10	10/2/2013	10'	11	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SWALL-9'	10/2/2013	9'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SWWALL-10'	10/2/2013	10'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
NEWALL-10'	10/2/2013	10'	620	330	280	<5.0	17	94	39	170
N Wall2-10'	10/4/2013	10'	890	230	88	<5.0	<5.0	17	25	110
NE Wall2-10'	10/4/2013	10'	3,300	2,500	2,200	<20	29	350	150	680
NE Wall2-6'	10/4/2013	6'	<1.0	2,300	8,500	<0.005	<0.005	<0.005	<0.005	0.0062
EBE-12'	10/10/2013	12'	<1.0	<1.0	<5.0	<0.005	<0.005	0.0065	<0.005	0.018
SWN-e-3'	10/10/2013	3'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SWN-e-6'	10/10/2013	6'	<1.0	<1.0	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SWN-e-10'	10/10/2013	10'	770	310	160	<1.0	<1.0	<1.0	3.6	34
SWS-e-3'	10/10/2013	3'	18	28	27	<0.005	<0.005	<0.005	<0.005	<0.005
SWS-e-6'	10/10/2013	6'	<1.0	1.2	<5.0	<0.005	<0.005	<0.005	<0.005	<0.005
SWS-e-10'	10/10/2013	10'	1,500	880	470	<2.5	<2.5	17	16	100

mg/kg = milligrams per kilogram (equivalent to parts per million)

MDL = method detection limit

TPH = total petroleum hydrocarbons MTBE = methyl butyl tertiary ethyl

TPH-g = TPH as gasoline "<" = less than

TPH-d = TPH as diesel \*\*" = with silica gel cleanup

TPH-mo = TPH as motor oil "-" = not available

BTEX/MTBE data from October 2013 analyzed using EPA Method 8260B

Soil Sample was over-excavated during source removal activities

**Table 3**  
**Soil Sample Analytical Data**  
**VOCs**  
AEI Project No. 298931, 1620-1640 Park Street, Alameda, California

Sample ID	Date Collected	Approx. Depth (feet)	PCE (mg/kg)	n-Butyl-benzene (mg/kg)	Naphthalene (mg/kg)	1,2,4-Trimethyl benzene (mg/kg) EPA Method SW8260B	1,3,5-Trimethyl benzene (mg/kg)	sec-Butyl benzene (mg/kg)	n-Propyl benzene (mg/kg)	Isopropyl-benzene (mg/kg)	4-Isopropyl toluene (mg/kg)	Remaining VOCs (mg/kg)
AEI-11-3'	7/26/2011	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
AEI-12-3'	7/26/2011	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
AEI-13-3'	7/26/2011	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
AEI-27-3'	1/17/2012	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
<b>October 2013 Excavation Activities</b>												
NWW-11-10'	10/2/2013	10	<0.005	0.020	0.025	0.14	0.036	<0.005	<0.005	<0.005	<0.005	<MDL
SE Corner-10'	10/2/2013	10	<0.05	1.3	1.2	7.8	2.2	<0.5	1.2	<0.5	<0.5	<MDL
WW-1-9'	10/2/2013	9	<0.50	15	19	110	30	<5.0	17	5.7	5.1	<MDL
NWALL-6'	10/2/2013	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
NWALL-10'	10/2/2013	10	<0.50	8.3	6.4	54	16	<5.0	11	<5.0	<5.0	<MDL
NBOT-12.5	10/2/2013	12.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SBOT-10	10/2/2013	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWALL-9'	10/2/2013	9	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWWALL-10'	10/2/2013	10	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
NEWALL-10'	10/2/2013	10	<0.50	9.3	10	74	22	<5.0	14	<5.0	<5.0	<MDL
N Wall2-10'	10/4/2013	10	<5.0	9.1	12	66	20	<5.0	9.8	<5.0	<5.0	<MDL
NE Wall2-10'	10/4/2013	10	<20	37	59	270	85	<20	45	<20	<20	<MDL
NE Wall2-6'	10/4/2013	6	0.045	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
EBE-12'	10/10/2013	12	<0.005	<0.005	<0.005	0.0096	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWN-e-3'	10/10/2013	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWN-e-6'	10/10/2013	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWN-e-10'	10/10/2013	10	<1.0	7.2	9.7	38	13	1.1	3.0	<1.0	<1.0	<MDL
SWS-e-3'	10/10/2013	3	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWS-e-6'	10/10/2013	6	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<MDL
SWS-e-10'	10/10/2013	10	<2.5	17	22	91	28	2.7	11	2.9	4.8	<MDL

mg/kg = milligrams per kilogram (equivalent to parts per million)

MDL = method detection limit

PCE = tetrachloroethene

VOCs = volatile organic compounds

"<" = less than

Soil Sample was over-excavated during source removal activities

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8	
by EPA Methods 8020, 8021B, or 8260B											
MW-1	1/21/1987		-	-	21,020	1,148	8,627	1,792	6,012	-	-
	1/11/1989		-	-	1,400	74	10	13	5.0	-	-
	7/12/1989		-	-	1,200	470	49	45	33	-	-
	4/9/1991		-	-	850	260	10	15	12	-	-
	7/14/1992		-	-	13,000	2,300	1,200	1,200	1,200	-	-
	10/7/1992		-	-	3,600	1,600	80	120	120	-	-
	1/11/1993		-	-	1,200	410	16	23	19	-	-
	4/23/1993	a	-	-	2,200	720	180	82	150	-	-
	7/8/1993	a	-	-	3,200	1,200	110	97	100	-	-
	10/15/1993	a	-	-	3,700	1,400	43	94	36	-	-
	1/25/1994	a	-	-	1,600	680	16	41	35	-	-
	4/28/1994	a	-	-	6,100	1,900	380	250	340	-	-
	7/27/1994	a	-	-	6,000	1,800	510	220	450	-	-
	10/27/1994	a	-	-	3,000	1,100	79	82	87	-	-
	1/26/1995	a	-	-	1,600	660	100	82	87	-	-
	4/13/1995	a	-	-	3,800	1,200	270	120	260	-	-
	7/21/1995	a	-	-	5,200	1,500	450	190	400	-	-
	10/25/1995	a	-	-	5,900	1,800	450	210	400	-	-
	1/21/1997	a	-	-	3,100	1,100	87	160	180	<7.3	-
	11/12/1998	a	-	-	1,000	280	3	3.3	7.9	<30	-
	1/16/2001	a	-	-	4,700	1,20	18	150	49	<5	-
	6/27/2002	a	-	-	5,900	230	7.7	<5	1,500	<5	-
	11/18/2002	a	-	-	3,100	890	12	310	28	<2.5	-
	2/20/2003	d	-	-	260	100	0.72	<0.5	<0.5	<0.5	-
	6/11/2003	a	-	-	3,100	480	6.7	220	420	<2.5	-
	4/3/2008	a	-	-	2,700	280	21	130	230	<1.0	<0.5
	6/23/2011	a	-	-	610	100	6.2	46	77	<2.5	-
	12/6/2011	a	-	-	900	160	<5.0	68	76	<5.0	-
	1/24/2012	a	-	-	190	25	<1.0	1.4	4.6	<1.0	-
	5/18/2012	f	210	<250	2,600	200	51	93	610	<5.0	-
	7/11/2012	a	700	<250	2,700	190	8.1	100	230	<5.0	-
	11/16/2012	c	140	<250	370	71	<1.7	<1.7	<1.7	<1.7	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013		<50	<250	<50	3.1	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	a,g	230	<250	520	39	<1.0	29	5.2	<1.0	-

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8 (µg/L)
MW-2	1/21/1987		-	-	5,018	386	1,981	285	1,432	-	-
	1/11/1989		-	-	10,000	3,000	410	240	190	-	-
	7/12/1989		-	-	7,600	2,700	540	250	320	-	-
	4/9/1991		-	-	4,900	910	210	130	200	-	-
	7/14/1992		-	-	13,000	4,400	1,500	610	1,100	-	-
	10/7/1992		-	-	11,000	5,200	1,500	500	1,200	-	-
	1/11/1993		-	-	17,000	940	1,100	480	930	-	-
	4/23/1993	a	-	-	52,000	13,000	8,400	1,700	5,300	-	-
	7/8/1993	a	-	-	6,400	2,500	470	280	530	-	-
	10/15/1993	a	-	-	17,000	3,900	870	500	940	-	-
	1/25/1994	a	-	-	16,000	5,400	1,140	640	1,500	-	-
	4/28/1994	a	-	-	15,000	4,00	910	480	1,200	-	-
	7/27/1994	a	-	-	18,000	6,000	760	630	1,600	-	-
	10/27/1994	a	-	-	9,500	2,700	230	320	640	-	-
	1/26/1995	a	-	-	5,900	1,900	290	230	500	-	-
	4/13/1995	a	-	-	10,000	3,300	620	360	930	-	-
	7/21/1995	a	-	-	9,900	3,300	320	390	830	-	-
	10/25/1995	a	-	-	13,000	4,900	400	580	990	-	-
	1/21/1997	a	-	-	7,600	2,600	310	330	660	<20	-
	11/12/1998	a	-	-	31,000	11,000	750	1,500	2,300	<900	-
	1/16/2001	a	-	-	23,000	8,200	260	1,000	820	<30	-
	6/27/2002	a	-	-	39,000	7,000	1,800	690	4,000	<5	-
	11/18/2002	a	-	-	15,000	5,700	76	1,000	150	<12	-
	2/20/2003	a	-	-	26,000	6,300	1,100	1,300	1,900	<5.0	-
	6/11/2003	a	-	-	37,000	7,100	2,300	2,000	3,600	<25	-
	4/3/2008	a	-	-	4,100	760	96	250	130	<2.5	<0.5
	6/23/2011	a	-	-	6,500	2,100	210.0	560	310	<50	-
	12/6/2011	a	-	-	4,800	1,600	<50	260	<50	<50	-
	1/24/2012	a	-	-	2,500	100	22.0	<5.0	410	<5.0	-
	5/18/2012	f	68	<250	140	14	2.8	2.9	12	<0.5	-
	7/11/2012	a	270	<250	930	170	<5.0	24	9.3	<5.0	-
	11/16/2012	c	200	<250	340	15	1.4	5.4	2.1	<0.5	-
	2/27/2013	a	<50	<250	53	1.8	<0.5	<0.5	1.4	<0.5	-
	5/1/2013	a,c	190	<250	280	2.2	<0.5	5.6	5.6	<0.5	-
	10/24/2013	a,g	380	<250	480	5.0	<0.5	2.8	1.3	<0.5	-

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8	
by EPA Methods 8020, 8021B, or 8260B											
MW-3	1/21/1987		-	-	10,287	1,428	3,281	610	2,761	-	-
	1/11/1989		-	-	5,300	1,800	340	150	160	-	-
	7/12/1989		-	-	7,800	3,100	900	300	480	-	-
	4/9/1991		-	-	9,400	1,400	730	200	510	-	-
	7/14/1992		-	-	17,000	3,500	390	390	260	-	-
	10/7/1992		-	-	9,200	4,300	470	390	610	-	-
	1/11/1993		-	-	2,000	740	29	58	28	-	-
	4/23/1993	a	-	-	6,500	2,600	280	260	190	-	-
	7/8/1993	a	-	-	5,200	2,100	260	250	180	-	-
	10/15/1993	a	-	-	11,000	3,500	580	430	370	-	-
	1/25/1994	a	-	-	6,200	2,500	270	160	28	-	-
	4/28/1994	a	-	-	5,300	1,700	190	210	180	-	-
	7/27/1994	a	-	-	5,900	2,000	360	260	330	-	-
	10/27/1994	a	-	-	8,000	2,200	580	260	170	-	-
	1/26/1995	a	-	-	3,700	1,200	150	150	190	-	-
	4/13/1995	a	-	-	4,000	1,400	200	180	210	-	-
	7/21/1995	a	-	-	5,700	2,000	280	270	280	-	-
	10/25/1995	a	-	-	11,000	3,500	1,100	460	680	-	-
	1/21/1997	a	-	-	2,200	860	63	71	80	<5.0	-
	11/12/1998	d	-	-	180	44	0.51	<0.5	0.92	<20	-
	1/16/2001	a	-	-	64	11	0.77	<0.5	<0.5	<5.0	-
	6/27/2002		-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	11/18/2002	a	-	-	110	21	1	<0.5	<0.5	<0.5	-
	2/20/2003		-	-	<50	2.5	<0.5	<0.5	<0.5	<0.5	-
	6/11/2003		-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	4/3/2008	a	-	-	7,600	2,400	58	250	170	<5.0	<0.5
	6/23/2011	a	-	-	1,300	560	21	86	150	<12	-
	12/6/2011	a	-	-	1,800	620	28	22	46	<17	-
	1/24/2012	a	-	-	3,700	1,200	68	34	130	<25	-
	5/18/2012	f	<50	<250	75	5.3	<0.5	<0.5	1.6	<0.5	-
	7/11/2012	a	<50	<250	78	1.4	0.66	<0.5	5.5	<0.5	-
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	2/27/2013	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	8/2/2013		-	-	-	<2.5	<2.5	<2.5	<2.5	<2.5	-
	10/24/2013	a,g	100	<250	100	4.2	<1.2	<1.2	<1.2	<1.2	-

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8 (µg/L)
MW-4	4/28/1994	b,c	-	-	190	3.8	2.9	2.1	3.1	-	-
	7/27/1994	a	-	-	180	15	9.2	7.6	28	-	-
	10/27/1994	a	-	-	130	8.6	6.6	4.5	17	-	-
	1/26/1995	-	-	-	110	6.5	1.2	1.8	11	-	-
	4/13/1995	-	-	-	82	3.9	<0.5	<0.5	2.5	-	-
	7/21/1995	-	-	-	130	8.8	1.3	4.5	7.6	-	-
	10/25/1995	-	-	-	95	6.6	1.7	4.3	7	-	-
	4/3/2008	-	-	-	130	1.6	<0.5	0.89	0.85	<0.5	<0.5
	6/23/2011	a	-	-	53	2.7	<0.5	1.0	1.7	<0.5	-
	5/23/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	7/11/2012	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	11/16/2012	c	360	<250	440	3.4	<0.5	1.2	2.1	<0.5	-
	2/27/2013	-	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013	-	<50	<250	<50	1.8	<0.5	<0.5	<0.5	<0.5	-
MW-5	8/8/2013	g	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	4/28/1994	a	-	-	30,000	4,000	3,000	810	3,500	-	-
	7/27/1994	a	-	-	9,300	2,000	800	290	940	-	-
	10/27/1994	a	-	-	15,000	2,700	1,300	420	1,100	-	-
	1/26/1995	a	-	-	7,900	2,100	680	240	860	-	-
	4/13/1995	a	-	-	7,900	2,400	580	340	630	-	-
	7/21/1995	a	-	-	11,000	3,400	760	610	1,200	-	-
	10/25/1995	a	-	-	13,000	2,900	830	570	1,100	-	-
	1/21/1997	a	-	-	2,600	750	65	1,860	280	<5.0	-
	11/12/1998	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	-
	1/16/2001	-	-	-	<50	11	<0.5	<0.5	0.82	<5.0	-
	6/27/2002	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	11/18/2002	a	-	-	130	17	3.8	2.1	16	<0.5	-
	2/20/2003	-	-	-	<50	5.6	0.51	<0.5	0.68	<0.5	-
	6/11/2003	a	-	-	170	48	<0.5	<0.5	1.4	<0.5	-
	4/3/2008	a	-	-	31,000	490	3,400	1,600	5,300	<10	<0.5
	6/23/2011	a	-	-	82	5.1	<0.5	12.0	8.4	<0.5	-
	5/18/2012	f	<50	<250	120	<0.5	<0.5	<0.5	<0.5	<0.5	-
	7/11/2012	g	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	11/16/2012	c	450	<250	580	27	1.7	6.7	7.1	<0.5	-
	2/27/2013	-	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013	a	<50	<250	64	3.4	<0.5	<0.5	<0.5	<0.5	-
	8/8/2013	g	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	a,g	<50	<250	130	5.2	<0.5	0.73	1.9	<0.5	-

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead	
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8 (µg/L)	
by EPA Methods 8020, 8021B, or 8260B												
DPE-1	12/6/2011	a	-	-	9,200	1,800	570	460	1,100	<50	-	
	1/24/2012	a	-	-	3,200	170	58	<5.0	620	<5.0	-	
	5/18/2012	f	280	<250	540	49	<1.0	<1.0	17	<1.0	-	
	7/11/2012	a	860	<250	2,300	240	15	98	88	<5.0	-	
	11/16/2012	c	360	<250	580	3.3	<0.5	2.2	2.8	<0.5	-	
	2/27/2013	a,c	110	<250	270	1.4	<0.5	0.53	5.3	<0.5	-	
	5/1/2013	a,c	74	<250	330	0.90	<0.5	1.9	10	<0.5	-	
	8/8/2013	g	-	-	-	18	<5.0	35	39	<5.0	-	
	10/24/2013	a,g	530	<250	610	6.1	0.78	3.6	3.5	<0.5	-	
DPE-2	12/6/2011	a	-	-	22,000	2,100	3,300	650	3,300	<100	-	
	1/24/2012	a	-	-	1,100	44	26	11	150	<2.5	-	
	5/18/2012	f	<50	<250	220	33	3.2	<0.5	30	<0.5	-	
	7/11/2012	a	400	<250	2,600	300	12	45	390	<10	-	
	11/16/2012		<50	<250	<50	3.4	<0.5	<0.5	<0.5	<0.5	-	
	2/27/2013	h	99	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	5/1/2013	a,c	57	<250	180	37	1.3	3.1	3.2	<0.5	-	
	8/8/2013	g	-	-	-	360	<5.0	30	11	<5.0	-	
	Well Decommissioned Prior to Excavation - October 2013											
DPE-3	12/6/2011	a	-	-	6,400	550	560	180	1,000	<17	-	
	1/24/2012	a	-	-	5,500	290	240	44	1,000	<5.0	-	
	5/18/2012	f	260	<250	1,100	78	37	11	89	<1.7	-	
	7/11/2012	a	720	<250	2,400	330	19	10	130	<10	-	
Well Decommissioned Prior to Excavation - 2012												
DPE-4	1/24/2012	a	-	-	730	66	6.0	7.1	83	2.5	-	
	5/18/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	7/11/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	2/27/2013		<50	<250	<50	0.63	<0.5	<0.5	<0.5	<0.5	-	
	5/1/2013	a,h	53	<250	210	19	<0.5	<0.5	<0.5	<0.5	-	
	8/2/2013		-	-	-	12	<0.5	<0.5	<0.5	<0.5	-	
	10/24/2013	a	76	<250	170	4.4	<0.5	<0.5	0.53	<0.5	-	
DPE-5	11/16/2012	h	560	1,400	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	2/27/2013	a,c,h	1,200	2,600	3,900	440	370	120	570	<10	-	
	5/1/2013	Well not sampled due to the presence of free product (Thickness of 0.17')										
	Well Decommissioned Prior to Excavation - October 2013											
DPE-6	1/24/2012	a	-	-	64*	<0.5	<0.5	<0.5	3.2	<0.5	-	
	5/18/2012	f	<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	7/11/2012	g	<50	<250	<50	0.93	<0.5	<0.5	<0.5	<0.5	-	
	11/16/2012		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	2/27/2013	h	160	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	
	5/1/2013	i	1,200	1,100	<50	0.58	<0.5	<0.5	<0.5	<0.5	-	
	8/2/2013		-	-	-	0.53	<0.5	<0.5	<0.5	<0.5	-	
	10/24/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-	

**Table 4**  
**Groundwater Analytical Data (TPHs, BTEX, MTBE & Lead) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample ID	Date	Notes	TPH-d	TPH-mo	TPH-g by EPA Methods 8020, 8021B, or 8260B	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Lead
			(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	EPA 200.8
DPE-8	11/16/2012	c	460	<250	630	13	<0.5	1.1	19	<0.5	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013	a,c	92	<250	140	8.0	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	a	<50	<250	63	<0.5	<0.5	<0.5	<0.5	<0.5	-
DPE-9	1/24/2012	a	<50	<250	4,400	160	390	93	1,100	<5.0	-
	7/11/2012	a	680	<250	1,300	47	3.1	4.0	100	<1.7	-
	11/16/2012	c	470	<250	530	4.7	<0.5	0.78	2.3	<0.5	-
	2/27/2013	b	2,200	<250	3,300	5.5	<0.5	5.7	<0.5	16	-
	5/1/2013	a,c	1,300	<250	1,700	5.4	<0.5	5.6	11	<0.5	-
	8/2/2013	-	-	-	3.9	<0.5	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	g	<50	<250	<50	0.58	<0.5	<0.5	<0.5	<0.5	-
DPE-10	5/18/2012	f	420	<250	1,700	150	<5.0	<5.0	<5.0	160	-
	7/11/2012	a	160	<250	360	40	<1.0	<1.0	<1.0	<1.0	-
	11/16/2012		<50	<250	79	4.9	<0.5	<0.5	<0.5	<0.5	-
	2/27/2013	a	660	<250	820	5.3	<0.5	6.0	<0.5	4.4	-
	5/1/2013	a,c	2,600	<250	3,700	56	<1.7	95	82	<1.7	-
	8/2/2013	-	-	-	8.2	<0.5	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	a,g	57	<250	97	2.2	<0.5	<0.5	<0.5	<0.5	-
DPE-11	5/18/2012	f	260	<250	930	6.4	4.6	4.6	160	<1.2	-
	7/11/2012	a	1,600	<250	2,400	16	<1.0	14	57	<1.0	-
	11/16/2012	c	540	<250	860	5.3	<0.5	0.81	1.2	<0.5	-
	2/27/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	5/1/2013		<50	<250	<50	<0.5	<0.5	<0.5	<0.5	<0.5	-
	10/24/2013	a,g	340	<250	490	4.7	<0.5	2.9	0.80	<0.5	-
ESL			100	100	100	1.0	40	30	20	5.0	2.5

TPH-g= total petroleum hydrocarbons as gasoline

TPH-d= total petroleum hydrocarbons as diesel

TPH-mo= total petroleum hydrocarbons as motor oil

BTEX= Benzene, Toluene, Ethylbenzene, Xylenes

MTBE = Methyl tertiary butyl ether

"-" = Not analyzed or data not available

µg/L = micrograms per liter (ppb)

ESL = Environmental Screening Levels, Table F-1a, Groundwater, Potential Drinking Water, San Francisco Regional Water Quality Control Board, Revised May 2013

a = Laboratory note indicates the unmodified or weakly modified gasoline is significant.

b = Laboratory note indicates heavier gasoline range compounds are significant (aged gas?).

c = Laboratory note indicates gasoline range compounds are significant with no recognizable pattern.

d = Laboratory note indicates that lighter gasoline range coounds (the most mobile fraction) are significant.

e = Laboratory note indicates that one to a few isolated non-targeted peaks are present.

f = Laboratory note indicates that low surrogate due to matrix interference.

g = Surrogate recovery exceeds the control limits due to dilution / matrix interference / coelution / presence of surrogate compound in the sample

h = Laboratory note indicates that diesel & oil range compounds are significant

i = Laboratory note indicates that aged diesel is significant

\* Total petroleum hydrocarbons as diesel = <50; Total petroleum hydrocarbons as motor oil = <250

**Table 5**  
**Groundwater Analytical Data (VOCs) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample I.D.	Date	Notes	by EPA Methods 8020, 8021B, or 8260B (µg/L)																				
			TAME	t-Butyl alcohol (TBA)	EDB	1,2-DCA	DIPF	Ethanol	ETBE	2-Butanone	n-Butylbenzene	sec-Butylbenzene	Isopropylbenzene	cis-1,2-Dichloroethene	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	Naphthalene	n-Propylbenzene	Methanol	PCE	TCE	Chloroform	Other VOCs
MW-1	1/16/2001	a	<5.0	<25	<5.0	<5.0	<5.0	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/27/2002	a	<5.0	<50	<5.0	<5.0	<5.0	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/18/2002	a	-	-	<2.5	<2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2/20/2003	d	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/11/2003	a	-	-	<2.5	<2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/3/2008	a	<1.0	<4.0	<1.0	<1.0	<1.0	<100	<1.0	-	-	-	-	-	-	-	-	<1,000	-	-	-	-	
	6/23/2011	a	<2.5	<10	-	-	<2.5	-	<2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/6/2011	a	<5.0	<20	-	-	<5.0	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/24/2013		<1.0	<4.0	<1.0	<1.0	<1.0	-	<1.0	<4.0	<1.0	1.3	3.6	<1.0	6.4	29	<b>19</b>	3.3	-	<1.0	<1.0	<1.0	<RL
MW-2	1/16/2001	a	<30	<150	<30	<30	<30	-	<30	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/27/2002	a	<5.0	<5.0	<5.0	6.1	<5.0	-	<5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/18/2002	a	-	-	<12	<12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2/20/2003	a	-	-	<5.0	5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/11/2003	a	-	-	<25	<25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/3/2008	a	<2.5	<10	<2.5	<2.5	<2.5	<250	<2.5	-	-	-	-	-	-	-	-	<2,500	-	-	-	-	
	6/23/2011	a	<50	<200	-	-	<50	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/6/2011	a	<50	<200	-	-	<50	-	<50	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10/24/2013		<0.5	13	<0.5	<0.5	<0.5	-	<0.5	<2.0	1.7	2.4	1.1	<0.5	1.9	4.6	<b>24</b>	0.75	-	<0.5	<b>5.5</b>	<0.5	<RL <sup>h</sup>
MW-3	1/16/2001	a	<1.0	<5.0	<1.0	1.4	<1.0	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/27/2002		<0.5	<5.0	<0.5	<0.5	<0.5	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11/18/2002	a	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2/20/2003	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6/11/2003	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4/3/2008	a	<5.0	<20	<5.0	<5.0	<5.0	<500	<5.0	-	-	-	-	-	-	-	-	<5,000	-	-	-	-	
	6/23/2011	a	<12	<50	-	-	<12	-	<12	-	-	-	-	-	-	-	-	-	-	-	-	-	
	12/6/2011	a	<17	<67	-	-	<17	-	<17	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8/2/2013	g	<2.5	<b>22</b>	<2.5	<2.5	<2.5	-	<2.5	<10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	-	<2.5	<b>63</b>	<2.5	<RL
	10/24/2013		<1.2	5.9	<1.2	<1.2	<1.2	-	<1.2	<5.0	<1.2	<1.2	<1.2	<1.2	1.3	<1.2	1.4	<b>24</b>	<1.2	-	<1.2	<b>64</b>	<1.2

**Table 5**  
**Groundwater Analytical Data (VOCs) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample I.D.	Date	Notes	by EPA Methods 8020, 8021B, or 8260B (µg/L)																		
			TAME	t-Butyl alcohol (TBA)	EDB	1,2-DCA	DPE	Ethanol	ETBE	2-Butanone	n-Butyl benzene	sec-Butyl benzene	Isopropylbenzene	cis-1,2-Dichloroethene	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	Naphthalene	n-Propyl benzene	Methanol	PCE	TCE
MW-4	4/3/2008	<0.5 <2.0 <0.5 <0.5 <0.5 <50 <0.5 - - - - - - - - - - - <500 - - - - -																			
	6/23/2011	a <0.5 <2.0 - - <0.5 - <0.5 - - - - - - - - - - - - - - -																			
	8/8/2013	g <0.5 <2.0 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 - 5.4 13 <0.5 <RL																			
	10/24/2013	<0.5 <2.0 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 - 13 18 9.8 <RL																			
MW-5	1/16/2001	<1.0 <5.0 <1.0 <1.0 <1.0 - <1.0 - - - - - - - - - - - - - - -																			
	6/27/2002	<0.5 <5.0 <0.5 <0.5 <0.5 - <0.5 - - - - - - - - - - - - - - -																			
	11/18/2002	a - - <0.5 <0.5 -																			
	2/20/2003	- - <0.5 <0.5 -																			
	6/11/2003	a - - <0.5 <0.5 -																			
	4/3/2008	a <10 <40 <10 <10 <10 <1,000 <10 - - - - - - - - - <10,000 - - - - -																			
	6/23/2011	a <0.5 <2.0 - - <0.5 - <0.5 - - - - - - - - - - - - - - -																			
	8/8/2013	g <0.5 <2.0 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 - 8.3 16 7.4 <RL																			
	10/24/2013	<0.5 <2.0 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 0.59 <0.5 <0.5 8.0 1.3 <0.5 - 6.7 16 <0.5 <RL																			
DPE-1	12/6/2011	a <50 <200 - - <50 - <50 - - - - - - - - - - - - - - -																			
	8/8/2013	g <5.0 <20 <5.0 <5.0 <5.0 - <5.0 <20 <5.0 <5.0 <5.0 12 <5.0 <5.0 140 22 20 - <5.0 <5.0 <5.0 <RL																			
	10/24/2013	<0.5 9.5 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 1.9 3.5 <0.5 <0.5 14 <0.5 4.2 - <0.5 <0.5 <0.5 <RL <sup>i</sup>																			
DPE-2	12/6/2011	a <100 <400 - - <100 - <100 - - - - - - - - - - - - - - -																			
	8/8/2013	g <5.0 41 <5.0 <5.0 <5.0 <5.0 <5.0 - <20 <5.0 <5.0 <5.0 8.9 <5.0 <5.0 87 8.7 6.6 - 11 <5.0 <5.0 <RL																			
Well Decommissioned Prior to Excavation - October 2013																					
DPE-3	12/6/2011	a <17 <67 - - <17 - <17 - - - - - - - - - - - - - - -																			
	Well Decommissioned Prior to Excavation - 2012																				
DPE-4	8/2/2013	g <0.5 13 <0.5 2.6 <0.5 - <0.5 2.7 0.59 3.7 0.55 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 2.3 <0.5 <RL																			
	10/24/2013	<0.5 16 <0.5 4.1 <0.5 - <0.5 <2.0 <0.5 2.1 1.1 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <RL <sup>j</sup>																			
DPE-5	5/1/2013	Well not sampled due to the presence of free product (Thickness of 0.17')																			
	8/2/2013	Well not sampled due to the presence of free product (Thickness of 0.09')																			
	Well Decommissioned Prior to Excavation - October 2013																				
DPE-6	8/2/2013	g <0.5 2.3 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <RL																			
	10/24/2013	<0.5 <2.0 <0.5 <0.5 <0.5 - <0.5 <2.0 <0.5 <0.5 <0.5 <0.5 <0.5 0.73 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <RL <sup>k</sup>																			

**Table 5**  
**Groundwater Analytical Data (VOCs) - Monitoring Wells**  
AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample I.D.	Date	Notes	by EPA Methods 8020, 8021B, or 8260B ( $\mu\text{g/L}$ )																				
			TAME	t-Butyl alcohol (TBA)	EDB	1,2-DCA	DIPE	Ethanol	ETBE	2-Butanone	n-Butyl benzene	sec-Butyl benzene	Isopropylbenzene	cis-1,2-Dichloroethene	1,2,3-Trichloropropane	1,2,4-Trimethylbenzene	Naphthalene	n-Propyl benzene	Methanol	PCE	TCE	Chloroform	Other VOCs
DPE-8	10/24/2013		<0.5	<2.0	<0.5	<0.5	<0.5	-	<0.5	<2.0	<0.5	0.9	<0.5	<0.5	3.4	<0.5	<0.5	<0.5	-	<0.5	0.67	<0.5	<RL
DPE-9	8/2/2013	g	<0.5	2.6	<0.5	<0.5	<0.5	-	<0.5	<2.0	0.62	1.2	<0.5	4.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<b>21</b>	<0.5	<RL
	10/24/2013		<0.5	<2.0	<0.5	<0.5	<0.5	-	<0.5	<2.0	<0.5	<0.5	<0.5	<b>7.0</b>	<0.5	<0.5	<0.5	<0.5	-	<0.5	<b>31</b>	<0.5	<RL
DPE-10	8/2/2013	g	<0.5	4.6	<0.5	<0.5	<0.5	-	<0.5	<2.0	<0.5	0.86	<0.5	1.5	1.0	<0.5	<0.5	<0.5	-	<0.5	<b>26</b>	<0.5	<RL
	10/24/2013		<0.5	2.3	<0.5	<0.5	<0.5	-	<0.5	<2.0	<0.5	<0.5	<0.5	2.5	0.63	<0.5	<0.5	<0.5	-	<0.5	<b>29</b>	<0.5	<RL
DPE-11	10/24/2013		<0.5	10	<0.5	<0.5	<0.5	-	<0.5	<2.0	<0.5	5.1	3.6	0.73	<0.5	1.5	<0.5	1.9	-	<0.5	<b>5.6</b>	<0.5	<RL <sup>i</sup>
ESL			NE	12	0.05	0.5	NE	NE	NE	NE	NE	NE	NE	6.0	NE	NE	6.2	NE	NE	5.0	5.0	70	

VOCs= Volatile Organic Compounds

PCE= Tetrachloroethene

TCE= Trichloroethene

TAME = Tertiary amyl methyl ether

TBA = Tertiary butyl alcohol

EDB = 1,2-Dibromoethane

1,2-DCA = 1,2-Dichloroethane

DIPE = Diisopropyl ether

ETBE = Ethyl tertiary butyl ether

$\mu\text{g/L}$  = micrograms per liter (ppb)

<RL = Below the analytical laboratory reporting limit

" " = Not analyzed or data not available

**12** = Values in bold exceed the ESL

NE = No ESL value established

a = Laboratory note indicates the unmodified or weakly modified gasoline is significant.

d = Laboratory note indicates that lighter gasoline range compounds (the most mobile fraction) are significant.

g = Surrogate recovery exceeds the control limits due to dilution / matrix interference / coelution / presence of surrogate compound in the sample

h = 4-Isopropyl toluene detected at 0.89  $\mu\text{g/L}$  and 1,3,5-Trimethylbenzene detected at 1.7  $\mu\text{g/L}$ .

i = 4-Isopropyl toluene detected at 1.4  $\mu\text{g/L}$ .

j = 4-Isopropyl toluene detected at 0.60  $\mu\text{g/L}$ .

k = 1,1-Dichloroethane detected at 0.77  $\mu\text{g/L}$ .

l = 4-Isopropyl toluene detected at 1.5  $\mu\text{g/L}$ .

ESL = Environmental Screening Levels, Table F-1a, Groundwater, Potential Drinking Water, San Francisco Regional Water Quality Control Board, Revised May 2013

**Table 6**  
**Soil Vapor Analytical Data**

AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample	Date	Isopropyl Alcohol*		Helium*		TPH-g & TVH		Benzene		Toluene		Ethyl-benzene		Xylenes		TBA		MTBE		TAME		DPE		ETBE		PCE		TCE		Naphthalene (TO-17)		4-Ethyltoluene		4-Methyl-2-Pentanone		1,1,1-Trichloroethane		1,2,4-Trimethylbenzene		Tetrahydrofuran		1,3,5-Trimethylbenzene		Other VOCs		CO2		Methane		Nitrogen		Oxygen	
		ID	(µg/m³)	(%)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µL/L)	(µL/L)	(µL/L)	(µL/L)	(µL/L)	(µL/L)														
VP-1	5/17/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
	7/12/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	-	-	-	<11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17,000	<1.0	-	270,000																	
	11/16/2012	<50	na	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	63	<16	<16	<15	<12	<16	<15	<9.0	<15	500 <sup>a</sup>	25,000	<1.5	750,000	180,000	-	-	-	-	-	-	-	-	-	-	-															
	2/27/2013	<50	na	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	30	<11	<11	<10	<8.3	<11	<10	<6.0	<10	<RL	15,000	<1.0	710,000	180,000	-	-	-	-	-	-	-	-	-	-	-															
VP-2	5/17/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
	7/12/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	230	<7.3	<8.5	<8.5	<8.5	-	-	-	<11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13,000	<1.0	-	280,000																
	11/16/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	95	<7.3	<8.5	<8.5	<8.5	72	<11	<11	<10	<8.3	<11	<10	<6.0	<10	230 <sup>a</sup> , 110 <sup>b</sup>	23,000	<1.0	610,000	180,000	-	-	-	-	-	-	-	-	-	-	-	-														
	2/27/2013	<50	na	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	28	<11	<16	<10	<8.3	<11	<11	<6.0	<10	<RL	13,000	<1.5	710,000	190,000	-	-	-	-	-	-	-	-	-	-	-	-														
VP-3	5/17/2012	<50	na	<1,800	<6.5	<7.7	<8.8	<27	<62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
	7/12/2012	290	na	<1,800	<6.5	<7.7	<8.8	<27	<62	<7.3	<8.5	<8.5	<8.5	-	-	-	<11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,000	1.1	-	280,000																	
	11/16/2012	<50	na	<1,900	<6.9	<8.2	<9.3	<29	<66	<7.7	<9.0	<9.0	<9.0	ND<15	<12	<12	<11	<8.8	<12	<11	<6.4	<11	260 <sup>a</sup>	8,500	1.5	630,000	210,000	-	-	-	-	-	-	-	-	-	-	-	-														
	2/27/2013	<50	na	<2,700	<9.7	<11	<13	<40	<93	<11	<13	<13	<13	ND<14	<11	<16	<10	<8.3	<11	<10	<6.0	<10	<RL	3,700	1.1	710,000	190,000	-	-	-	-	-	-	-	-	-	-	-	-														
SV-1	4/16/2013	na	0.017	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<25	-	-	-	-	-	-	<RL	3,400	<2.0	-	170,000	-	-	-	-	-	-	-	-	-	-	-	-	-													
SV-2	4/16/2013	na	0.018	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<25	-	-	-	-	-	-	<RL	4,600	1.8	-	170,000	-	-	-	-	-	-	-	-	-	-	-	-	-													
SV-3	4/16/2013	na	<0.005	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<25	-	-	-	-	-	-	<RL	160	<2.0	-	170,000	-	-	-	-	-	-	-	-	-	-	-	-														
	8/21/2013	<50	na	-	<6.5	<7.7	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	110	<11	<11	<10	<8.3	<11	<10	<6.0	<10	<RL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-														
	10/24/2013	na	0.12	<720	<1.6	<1.9	<2.2	<6.6	<31	<1.8	<2.1	<2.1	<2.1	57	<2.8	-	<2.5	<2.1	<2.8	<3.8	3.5	<2.5	2.6 <sup>h</sup>	2,300	<1.3	-	160,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
SV-4	4/16/2013	na	<0.005	<2500	<25	<25	<25	<25	-	-	-	-	-	<25	<25	<25	-	-	-	-	-	-	<RL	4,200	<2.0	-	170,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
	8/21/2013	370	na	-	<6.5	<7.7	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	850	<11	<11	<10	<8.3	17	<10																																	

**Table 6**  
**Soil Vapor Analytical Data**

AEI Project No. 298931, 1630 Park Street (Parcel B), Alameda, CA

Sample	Date	Isopropyl Alcohol*	Helium* (<5% acceptable)																					CO2	Methane	Nitrogen	Oxygen
				TPH-g & TVH	Benzene	Toluene	Ethyl-benzene	Xylenes	TBA	MTBE	TAME	DIPE	ETBE	PCE	TCE	Naphthalene (TO-17)	4-Ethyltoluene	4-Methyl-2-Pentanone	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	Tetrahydrofuran	1,3,5-Trimethylbenzene	Other VOCs				
ID		(µg/m³)	(%)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µg/m³)	(µL/L)	(µL/L)	(µL/L)	(µL/L)	
SV-8	8/5/2013	na	0.038	-	16	23	<8.8	42	<6.2	<7.3	<8.5	<8.5	<8.5	<14	<11	<23	<10	23	<11	12	9.5	<10	<RL	18,000	-	-	160,000
	8/21/2013	na	<0.005	-	<6.5	<7.7	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	<14	<11	<11	<10	<8.3	<11	<10	<6.0	<10	<RL	-	-	-	-
	10/24/2013	na	0.12	<720	<1.6	<1.9	<2.2	<6.6	<31	<1.8	<2.1	<2.1	<2.1	5.2	<2.8	-	<2.5	<2.1	<2.8	<3.8	<1.5	<2.5	<RL	29,000	<1.2	-	130,000
SV-9	8/5/2013	na	0.30	-	<6.5	10	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	<14	<11	<6.2	<10	9.1	<11	<10	<6.0	<10	<RL	12,000	-	-	160,000
	8/21/2013	na	0.059	-	<6.5	<7.7	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	<14	<11	<11	<10	<8.3	<11	<10	<6.0	<10	<RL	-	-	-	-
	10/24/2013	na	0.019	<720	<1.6	<1.9	<2.2	<6.6	<31	<1.8	<2.1	<2.1	<2.1	5.4	<2.8	-	<2.5	<2.1	<2.8	<3.8	<1.5	<2.5	<RL	7,300	<1.2	-	170,000
SV-10	8/5/2013	na	0.011	-	27	60	19	110	<6.2	<7.3	<8.5	<8.5	<8.5	720	100	<25	12	28	43	38	9.4	13	<RL <sup>c</sup>	6,300	-	-	170,000
	8/21/2013	<20,000	na	-	8.9	<7.7	<8.8	<27	<6.2	<7.3	<8.5	<8.5	<8.5	2,100	160	<11	<10	<8.3	57	<10	<6.0	<10	<RL <sup>c</sup>	-	-	-	-
SV-11	8/21/2013	na	0.013	-	<b>7,500</b>	4,300	<b>5,700</b>	17,000	<25	<29	<34	<34	<34	<b>2,100</b>	<44	<44	860	<33	130	1,500	<24	700	<RL <sup>a,f,g</sup>	-	-	-	-
SV-12	8/21/2013	na	0.056	-	11	19	10	47	<6.2	<7.3	<8.5	<8.5	<8.5	31	<11	<11	<10	<8.3	<11	19	18	<10	<RL <sup>d,e</sup>	-	-	-	-
	10/24/2013	na	0.072	<720	<1.6	<1.9	<2.2	<6.6	<31	<1.8	<2.1	<2.1	<2.1	40	<2.8	-	<2.5	<2.1	<2.8	<3.8	<1.5	<2.5	2.5 <sup>h</sup>	29,000	<1.0	-	150,000
SV-13	10/24/13	na	0.037	9,000	190	220	37	390	<31	<1.8	<2.1	<2.1	<2.1	390	5.3	-	30	<2.1	4.2	87	<1.5	69	<RL <sup>L</sup>	18,000	2.2	-	150,000
SV-13 DUP	10/24/13	na	0.0091	9,300	190	200	35	370	<31	<1.8	<2.1	<2.1	<2.1	360	5.3	-	29	<2.1	5.0	79	<1.5	66	<RL <sup>n</sup>	18,000	2.2	-	140,000
SV-14	10/24/13	na	0.013	2,400	30	38	9.9	32	<31	<1.8	<2.1	<2.1	<2.1	79	<2.8	-	9.0	4.8	<2.8	4.9	<1.5	5.5	<RL <sup>m</sup>	3,000	1.5	-	150,000
SV-15	10/24/13	na	0.038		3.8	6.0	2.4	10	<31	<1.8	<2.1	<2.1	<2.1	75	<2.8	-	<2.5	3.1	<2.8	3.2	<1.5	<2.5	2.3 <sup>k</sup> ,2.9 <sup>h</sup>	8,500	<1.0	-	140,000
ESL		na	NA	50,000	420	1,300,000	4,900	220,000	--	47,000	--	--	--	2,100	3,000	360	--	--	22,000,000	--	--	--	na	na	na	na	

**Notes:**

µg/m³ = micrograms per cubic meter (ppbv)

\* = Leak check compound

<1.0 = Not detected above the laboratory reporting limit shown

**Bold** = Result exceeds screening criteria (ESL)

na = Not applicable

- = Not analyzed

-- = No value established

<RL = Less than laboratory reporting limit

ESL = Environmental Screening Levels, Table E-2, San Francisco Regional Water Quality Control Board  
(Commercial/Industrial, Shallow Soil, Drinking Water Aquifer), Revised May 2013

<sup>L</sup> = Following VOCs detected: Acetone (100), Bromomethane (9.5), Carbon Disulfide (14), Cyclohexane (110), 1,2-Dichloroethane (4.0), Ethyl Acetate (4.2), Heptane (57), Hexane (69), and Methylene chloride (3.5).

<sup>m</sup> = Following VOCs detected: Carbon Disulfide (6.7), Chloroform (3.9), Cyclohexane (93), Hexane (24), and Styrene (3.9).

<sup>n</sup> = Following VOCs detected: Acetone (82), Bromomethane (10), Carbon Disulfide (12), Cyclohexane (110), 1,2-Dichloroethane (3.7), Ethyl Acetate (5.8), Heptane (55), Hexane (65), and Methylene chloride (3.6).

TPH-g = total petroleum hydrocarbons as gasoline

TVH = Total volatile hydrocarbons -aliphatics

TBA = tert-Butyl-alcohol

MTBE = Methyl-tert-butyl ether

TAME = Tert-amyl methyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert-butyl ether

PCE = Tetrachloroethene

TCE = Trichloroethene

a = Hexane detected (no ESL established)

b = Ethanol detected (no ESL established)

c = Acetone detected below ESL

d = Styrene detected below ESL

e = 1,3-Butadiene detected (no ESL established)

f = Heptane detected (no ESL established)

g = 1,1,2,2-Tetrachloroethane detected below ESL

h = dichlorodifluoromethane detected (no ESL established)

i= Ethyl acetate (no ESL established)

j= 2-Hexanone (no ESL established)

k= carbon disulfide (no ESL established)

**APPENDIX A**

**LABORATORY ANALYTICAL REPORTS**



# McCormick Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310053

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084376

**Project Name:** #298931; FSI

**Project Received:** 10/02/2013

Analytical Report reviewed & approved for release on 10/03/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCormick](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccormick.com](http://www.mccormick.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310053

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

S	spike recovery outside accepted recovery limits
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SE Corner-10'	1310053-001A	Soil	10/02/2013 10:15	GC28	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	100	10/02/2013 16:30
tert-Amyl methyl ether (TAME)	ND		0.50	100	10/02/2013 16:30
Benzene	ND		0.50	100	10/02/2013 16:30
Bromobenzene	ND		0.50	100	10/02/2013 16:30
Bromoform	ND		0.50	100	10/02/2013 16:30
Bromochloromethane	ND		0.50	100	10/02/2013 16:30
Bromodichloromethane	ND		0.50	100	10/02/2013 16:30
Bromoform	ND		0.50	100	10/02/2013 16:30
Bromomethane	ND		0.50	100	10/02/2013 16:30
2-Butanone (MEK)	ND		2.0	100	10/02/2013 16:30
t-Butyl alcohol (TBA)	ND		5.0	100	10/02/2013 16:30
n-Butyl benzene	1.3		0.50	100	10/02/2013 16:30
sec-Butyl benzene	ND		0.50	100	10/02/2013 16:30
tert-Butyl benzene	ND		0.50	100	10/02/2013 16:30
Carbon Disulfide	ND		0.50	100	10/02/2013 16:30
Carbon Tetrachloride	ND		0.50	100	10/02/2013 16:30
Chlorobenzene	ND		0.50	100	10/02/2013 16:30
Chloroethane	ND		0.50	100	10/02/2013 16:30
Chloroform	ND		0.50	100	10/02/2013 16:30
Chloromethane	ND		0.50	100	10/02/2013 16:30
2-Chlorotoluene	ND		0.50	100	10/02/2013 16:30
4-Chlorotoluene	ND		0.50	100	10/02/2013 16:30
Dibromochloromethane	ND		0.50	100	10/02/2013 16:30
1,2-Dibromo-3-chloropropane	ND		0.40	100	10/02/2013 16:30
1,2-Dibromoethane (EDB)	ND		0.40	100	10/02/2013 16:30
Dibromomethane	ND		0.50	100	10/02/2013 16:30
1,2-Dichlorobenzene	ND		0.50	100	10/02/2013 16:30
1,3-Dichlorobenzene	ND		0.50	100	10/02/2013 16:30
1,4-Dichlorobenzene	ND		0.50	100	10/02/2013 16:30
Dichlorodifluoromethane	ND		0.50	100	10/02/2013 16:30
1,1-Dichloroethane	ND		0.50	100	10/02/2013 16:30
1,2-Dichloroethane (1,2-DCA)	ND		0.40	100	10/02/2013 16:30
1,1-Dichloroethene	ND		0.50	100	10/02/2013 16:30
cis-1,2-Dichloroethene	ND		0.50	100	10/02/2013 16:30
trans-1,2-Dichloroethene	ND		0.50	100	10/02/2013 16:30
1,2-Dichloropropane	ND		0.50	100	10/02/2013 16:30
1,3-Dichloropropane	ND		0.50	100	10/02/2013 16:30
2,2-Dichloropropane	ND		0.50	100	10/02/2013 16:30
1,1-Dichloropropene	ND		0.50	100	10/02/2013 16:30

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SE Corner-10'	1310053-001A	Soil	10/02/2013 10:15	GC28	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	100	10/02/2013 16:30
trans-1,3-Dichloropropene	ND		0.50	100	10/02/2013 16:30
Diisopropyl ether (DIPE)	ND		0.50	100	10/02/2013 16:30
Ethylbenzene	2.1		0.50	100	10/02/2013 16:30
Ethyl tert-butyl ether (ETBE)	ND		0.50	100	10/02/2013 16:30
Freon 113	ND		10	100	10/02/2013 16:30
Hexachlorobutadiene	ND		0.50	100	10/02/2013 16:30
Hexachloroethane	ND		0.50	100	10/02/2013 16:30
2-Hexanone	ND		0.50	100	10/02/2013 16:30
Isopropylbenzene	ND		0.50	100	10/02/2013 16:30
4-Isopropyl toluene	ND		0.50	100	10/02/2013 16:30
Methyl-t-butyl ether (MTBE)	ND		0.50	100	10/02/2013 16:30
Methylene chloride	ND		0.50	100	10/02/2013 16:30
4-Methyl-2-pentanone (MIBK)	ND		0.50	100	10/02/2013 16:30
Naphthalene	1.2		0.50	100	10/02/2013 16:30
n-Propyl benzene	1.2		0.50	100	10/02/2013 16:30
Styrene	ND		0.50	100	10/02/2013 16:30
1,1,1,2-Tetrachloroethane	ND		0.50	100	10/02/2013 16:30
1,1,2,2-Tetrachloroethane	ND		0.50	100	10/02/2013 16:30
Tetrachloroethene	ND		0.050	10	10/03/2013 11:29
Toluene	1.1		0.50	100	10/02/2013 16:30
1,2,3-Trichlorobenzene	ND		0.50	100	10/02/2013 16:30
1,2,4-Trichlorobenzene	ND		0.50	100	10/02/2013 16:30
1,1,1-Trichloroethane	ND		0.50	100	10/02/2013 16:30
1,1,2-Trichloroethane	ND		0.50	100	10/02/2013 16:30
Trichloroethene	ND		0.50	100	10/02/2013 16:30
Trichlorofluoromethane	ND		0.50	100	10/02/2013 16:30
1,2,3-Trichloropropane	ND		0.50	100	10/02/2013 16:30
1,2,4-Trimethylbenzene	7.8		0.50	100	10/02/2013 16:30
1,3,5-Trimethylbenzene	2.2		0.50	100	10/02/2013 16:30
Vinyl Chloride	ND		0.50	100	10/02/2013 16:30
Xylenes, Total	10		0.50	100	10/02/2013 16:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	106		70-130		10/02/2013 16:30
toluene-d8	96		70-130		10/02/2013 16:30
4-BFB	87		70-130		10/02/2013 16:30

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WW-1-9'	1310053-002A	Soil	10/02/2013 09:54	GC16	82363
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	100	1000		10/02/2013 15:09
tert-Amyl methyl ether (TAME)	ND	5.0	1000		10/02/2013 15:09
Benzene	ND	5.0	1000		10/02/2013 15:09
Bromobenzene	ND	5.0	1000		10/02/2013 15:09
Bromoform	ND	5.0	1000		10/02/2013 15:09
Bromochloromethane	ND	5.0	1000		10/02/2013 15:09
Bromodichloromethane	ND	5.0	1000		10/02/2013 15:09
Bromoform	ND	5.0	1000		10/02/2013 15:09
Bromomethane	ND	5.0	1000		10/02/2013 15:09
2-Butanone (MEK)	ND	20	1000		10/02/2013 15:09
t-Butyl alcohol (TBA)	ND	50	1000		10/02/2013 15:09
n-Butyl benzene	15	5.0	1000		10/02/2013 15:09
sec-Butyl benzene	ND	5.0	1000		10/02/2013 15:09
tert-Butyl benzene	ND	5.0	1000		10/02/2013 15:09
Carbon Disulfide	ND	5.0	1000		10/02/2013 15:09
Carbon Tetrachloride	ND	5.0	1000		10/02/2013 15:09
Chlorobenzene	ND	5.0	1000		10/02/2013 15:09
Chloroethane	ND	5.0	1000		10/02/2013 15:09
Chloroform	ND	5.0	1000		10/02/2013 15:09
Chloromethane	ND	5.0	1000		10/02/2013 15:09
2-Chlorotoluene	ND	5.0	1000		10/02/2013 15:09
4-Chlorotoluene	ND	5.0	1000		10/02/2013 15:09
Dibromochloromethane	ND	5.0	1000		10/02/2013 15:09
1,2-Dibromo-3-chloropropane	ND	4.0	1000		10/02/2013 15:09
1,2-Dibromoethane (EDB)	ND	4.0	1000		10/02/2013 15:09
Dibromomethane	ND	5.0	1000		10/02/2013 15:09
1,2-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:09
1,3-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:09
1,4-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:09
Dichlorodifluoromethane	ND	5.0	1000		10/02/2013 15:09
1,1-Dichloroethane	ND	5.0	1000		10/02/2013 15:09
1,2-Dichloroethane (1,2-DCA)	ND	4.0	1000		10/02/2013 15:09
1,1-Dichloroethene	ND	5.0	1000		10/02/2013 15:09
cis-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 15:09
trans-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 15:09
1,2-Dichloropropane	ND	5.0	1000		10/02/2013 15:09
1,3-Dichloropropane	ND	5.0	1000		10/02/2013 15:09
2,2-Dichloropropane	ND	5.0	1000		10/02/2013 15:09
1,1-Dichloropropene	ND	5.0	1000		10/02/2013 15:09

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
WW-1-9'	1310053-002A	Soil	10/02/2013 09:54	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 15:09
trans-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 15:09
Diisopropyl ether (DIPE)	ND		5.0	1000	10/02/2013 15:09
Ethylbenzene	55		5.0	1000	10/02/2013 15:09
Ethyl tert-butyl ether (ETBE)	ND		5.0	1000	10/02/2013 15:09
Freon 113	ND		100	1000	10/02/2013 15:09
Hexachlorobutadiene	ND		5.0	1000	10/02/2013 15:09
Hexachloroethane	ND		5.0	1000	10/02/2013 15:09
2-Hexanone	ND		5.0	1000	10/02/2013 15:09
Isopropylbenzene	5.7		5.0	1000	10/02/2013 15:09
4-Isopropyl toluene	5.1		5.0	1000	10/02/2013 15:09
Methyl-t-butyl ether (MTBE)	ND		5.0	1000	10/02/2013 15:09
Methylene chloride	ND		5.0	1000	10/02/2013 15:09
4-Methyl-2-pentanone (MIBK)	ND		5.0	1000	10/02/2013 15:09
Naphthalene	19		5.0	1000	10/02/2013 15:09
n-Propyl benzene	17		5.0	1000	10/02/2013 15:09
Styrene	ND		5.0	1000	10/02/2013 15:09
1,1,1,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 15:09
1,1,2,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 15:09
Tetrachloroethene	ND		0.50	100	10/03/2013 12:09
Toluene	80		5.0	1000	10/02/2013 15:09
1,2,3-Trichlorobenzene	ND		5.0	1000	10/02/2013 15:09
1,2,4-Trichlorobenzene	ND		5.0	1000	10/02/2013 15:09
1,1,1-Trichloroethane	ND		5.0	1000	10/02/2013 15:09
1,1,2-Trichloroethane	ND		5.0	1000	10/02/2013 15:09
Trichloroethene	ND		5.0	1000	10/02/2013 15:09
Trichlorofluoromethane	ND		5.0	1000	10/02/2013 15:09
1,2,3-Trichloropropane	ND		5.0	1000	10/02/2013 15:09
1,2,4-Trimethylbenzene	110		5.0	1000	10/02/2013 15:09
1,3,5-Trimethylbenzene	30		5.0	1000	10/02/2013 15:09
Vinyl Chloride	ND		5.0	1000	10/02/2013 15:09
Xylenes, Total	230		5.0	1000	10/02/2013 15:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	100		70-130		10/02/2013 15:09
toluene-d8	95		70-130		10/02/2013 15:09
4-BFB	97		70-130		10/02/2013 15:09

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWALL-10'	1310053-003A	Soil	10/02/2013 10:45	GC28	82363
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	100	1000		10/02/2013 14:35
tert-Amyl methyl ether (TAME)	ND	5.0	1000		10/02/2013 14:35
Benzene	ND	5.0	1000		10/02/2013 14:35
Bromobenzene	ND	5.0	1000		10/02/2013 14:35
Bromoform	ND	5.0	1000		10/02/2013 14:35
Bromochloromethane	ND	5.0	1000		10/02/2013 14:35
Bromodichloromethane	ND	5.0	1000		10/02/2013 14:35
Bromoform	ND	5.0	1000		10/02/2013 14:35
Bromomethane	ND	5.0	1000		10/02/2013 14:35
2-Butanone (MEK)	ND	20	1000		10/02/2013 14:35
t-Butyl alcohol (TBA)	ND	50	1000		10/02/2013 14:35
n-Butyl benzene	8.3	5.0	1000		10/02/2013 14:35
sec-Butyl benzene	ND	5.0	1000		10/02/2013 14:35
tert-Butyl benzene	ND	5.0	1000		10/02/2013 14:35
Carbon Disulfide	ND	5.0	1000		10/02/2013 14:35
Carbon Tetrachloride	ND	5.0	1000		10/02/2013 14:35
Chlorobenzene	ND	5.0	1000		10/02/2013 14:35
Chloroethane	ND	5.0	1000		10/02/2013 14:35
Chloroform	ND	5.0	1000		10/02/2013 14:35
Chloromethane	ND	5.0	1000		10/02/2013 14:35
2-Chlorotoluene	ND	5.0	1000		10/02/2013 14:35
4-Chlorotoluene	ND	5.0	1000		10/02/2013 14:35
Dibromochloromethane	ND	5.0	1000		10/02/2013 14:35
1,2-Dibromo-3-chloropropane	ND	4.0	1000		10/02/2013 14:35
1,2-Dibromoethane (EDB)	ND	4.0	1000		10/02/2013 14:35
Dibromomethane	ND	5.0	1000		10/02/2013 14:35
1,2-Dichlorobenzene	ND	5.0	1000		10/02/2013 14:35
1,3-Dichlorobenzene	ND	5.0	1000		10/02/2013 14:35
1,4-Dichlorobenzene	ND	5.0	1000		10/02/2013 14:35
Dichlorodifluoromethane	ND	5.0	1000		10/02/2013 14:35
1,1-Dichloroethane	ND	5.0	1000		10/02/2013 14:35
1,2-Dichloroethane (1,2-DCA)	ND	4.0	1000		10/02/2013 14:35
1,1-Dichloroethene	ND	5.0	1000		10/02/2013 14:35
cis-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 14:35
trans-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 14:35
1,2-Dichloropropane	ND	5.0	1000		10/02/2013 14:35
1,3-Dichloropropane	ND	5.0	1000		10/02/2013 14:35
2,2-Dichloropropane	ND	5.0	1000		10/02/2013 14:35
1,1-Dichloropropene	ND	5.0	1000		10/02/2013 14:35

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWALL-10'	1310053-003A	Soil	10/02/2013 10:45	GC28	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 14:35
trans-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 14:35
Diisopropyl ether (DIPE)	ND		5.0	1000	10/02/2013 14:35
Ethylbenzene	27		5.0	1000	10/02/2013 14:35
Ethyl tert-butyl ether (ETBE)	ND		5.0	1000	10/02/2013 14:35
Freon 113	ND		100	1000	10/02/2013 14:35
Hexachlorobutadiene	ND		5.0	1000	10/02/2013 14:35
Hexachloroethane	ND		5.0	1000	10/02/2013 14:35
2-Hexanone	ND		5.0	1000	10/02/2013 14:35
Isopropylbenzene	ND		5.0	1000	10/02/2013 14:35
4-Isopropyl toluene	ND		5.0	1000	10/02/2013 14:35
Methyl-t-butyl ether (MTBE)	ND		5.0	1000	10/02/2013 14:35
Methylene chloride	ND		5.0	1000	10/02/2013 14:35
4-Methyl-2-pentanone (MIBK)	ND		5.0	1000	10/02/2013 14:35
Naphthalene	6.4		5.0	1000	10/02/2013 14:35
n-Propyl benzene	11		5.0	1000	10/02/2013 14:35
Styrene	ND		5.0	1000	10/02/2013 14:35
1,1,1,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 14:35
1,1,2,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 14:35
Tetrachloroethene	ND		0.50	100	10/03/2013 12:49
Toluene	22		5.0	1000	10/02/2013 14:35
1,2,3-Trichlorobenzene	ND		5.0	1000	10/02/2013 14:35
1,2,4-Trichlorobenzene	ND		5.0	1000	10/02/2013 14:35
1,1,1-Trichloroethane	ND		5.0	1000	10/02/2013 14:35
1,1,2-Trichloroethane	ND		5.0	1000	10/02/2013 14:35
Trichloroethene	ND		5.0	1000	10/02/2013 14:35
Trichlorofluoromethane	ND		5.0	1000	10/02/2013 14:35
1,2,3-Trichloropropane	ND		5.0	1000	10/02/2013 14:35
1,2,4-Trimethylbenzene	54		5.0	1000	10/02/2013 14:35
1,3,5-Trimethylbenzene	16		5.0	1000	10/02/2013 14:35
Vinyl Chloride	ND		5.0	1000	10/02/2013 14:35
Xylenes, Total	110		5.0	1000	10/02/2013 14:35
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	103		70-130		10/02/2013 14:35
toluene-d8	99		70-130		10/02/2013 14:35
4-BFB	93		70-130		10/02/2013 14:35

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NBOT-12.5	1310053-004A	Soil	10/02/2013 07:40	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/02/2013 18:00
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/02/2013 18:00
Benzene	ND		0.0050	1	10/02/2013 18:00
Bromobenzene	ND		0.0050	1	10/02/2013 18:00
Bromoform	ND		0.0050	1	10/02/2013 18:00
Bromochloromethane	ND		0.0050	1	10/02/2013 18:00
Bromodichloromethane	ND		0.0050	1	10/02/2013 18:00
Bromomethane	ND		0.0050	1	10/02/2013 18:00
2-Butanone (MEK)	ND		0.020	1	10/02/2013 18:00
t-Butyl alcohol (TBA)	ND		0.050	1	10/02/2013 18:00
n-Butyl benzene	ND		0.0050	1	10/02/2013 18:00
sec-Butyl benzene	ND		0.0050	1	10/02/2013 18:00
tert-Butyl benzene	ND		0.0050	1	10/02/2013 18:00
Carbon Disulfide	ND		0.0050	1	10/02/2013 18:00
Carbon Tetrachloride	ND		0.0050	1	10/02/2013 18:00
Chlorobenzene	ND		0.0050	1	10/02/2013 18:00
Chloroethane	ND		0.0050	1	10/02/2013 18:00
Chloroform	ND		0.0050	1	10/02/2013 18:00
Chloromethane	ND		0.0050	1	10/02/2013 18:00
2-Chlorotoluene	ND		0.0050	1	10/02/2013 18:00
4-Chlorotoluene	ND		0.0050	1	10/02/2013 18:00
Dibromochloromethane	ND		0.0050	1	10/02/2013 18:00
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/02/2013 18:00
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/02/2013 18:00
Dibromomethane	ND		0.0050	1	10/02/2013 18:00
1,2-Dichlorobenzene	ND		0.0050	1	10/02/2013 18:00
1,3-Dichlorobenzene	ND		0.0050	1	10/02/2013 18:00
1,4-Dichlorobenzene	ND		0.0050	1	10/02/2013 18:00
Dichlorodifluoromethane	ND		0.0050	1	10/02/2013 18:00
1,1-Dichloroethane	ND		0.0050	1	10/02/2013 18:00
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/02/2013 18:00
1,1-Dichloroethene	ND		0.0050	1	10/02/2013 18:00
cis-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 18:00
trans-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 18:00
1,2-Dichloropropane	ND		0.0050	1	10/02/2013 18:00
1,3-Dichloropropane	ND		0.0050	1	10/02/2013 18:00
2,2-Dichloropropane	ND		0.0050	1	10/02/2013 18:00
1,1-Dichloropropene	ND		0.0050	1	10/02/2013 18:00

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NBOT-12.5	1310053-004A	Soil	10/02/2013 07:40	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 18:00
trans-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 18:00
Diisopropyl ether (DIPE)	ND		0.0050	1	10/02/2013 18:00
Ethylbenzene	ND		0.0050	1	10/02/2013 18:00
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/02/2013 18:00
Freon 113	ND		0.10	1	10/02/2013 18:00
Hexachlorobutadiene	ND		0.0050	1	10/02/2013 18:00
Hexachloroethane	ND		0.0050	1	10/02/2013 18:00
2-Hexanone	ND		0.0050	1	10/02/2013 18:00
Isopropylbenzene	ND		0.0050	1	10/02/2013 18:00
4-Isopropyl toluene	ND		0.0050	1	10/02/2013 18:00
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/02/2013 18:00
Methylene chloride	ND		0.0050	1	10/02/2013 18:00
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/02/2013 18:00
Naphthalene	ND		0.0050	1	10/02/2013 18:00
n-Propyl benzene	ND		0.0050	1	10/02/2013 18:00
Styrene	ND		0.0050	1	10/02/2013 18:00
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 18:00
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 18:00
Tetrachloroethene	ND		0.0050	1	10/02/2013 18:00
Toluene	ND		0.0050	1	10/02/2013 18:00
1,2,3-Trichlorobenzene	ND		0.0050	1	10/02/2013 18:00
1,2,4-Trichlorobenzene	ND		0.0050	1	10/02/2013 18:00
1,1,1-Trichloroethane	ND		0.0050	1	10/02/2013 18:00
1,1,2-Trichloroethane	ND		0.0050	1	10/02/2013 18:00
Trichloroethene	ND		0.0050	1	10/02/2013 18:00
Trichlorofluoromethane	ND		0.0050	1	10/02/2013 18:00
1,2,3-Trichloropropane	ND		0.0050	1	10/02/2013 18:00
1,2,4-Trimethylbenzene	ND		0.0050	1	10/02/2013 18:00
1,3,5-Trimethylbenzene	ND		0.0050	1	10/02/2013 18:00
Vinyl Chloride	ND		0.0050	1	10/02/2013 18:00
Xylenes, Total	ND		0.0050	1	10/02/2013 18:00
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	98		70-130		10/02/2013 18:00
toluene-d8	102		70-130		10/02/2013 18:00
4-BFB	103		70-130		10/02/2013 18:00

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310053

**Project:** #298931; FSI

**Extraction Method** SW5030B

**Date Received:** 10/2/13 11:57

**Analytical Method:** SW8260B

**Date Prepared:** 10/2/13

**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SBOT-10	1310053-005A	Soil	10/02/2013 08:17	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/03/2013 13:38
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/03/2013 13:38
Benzene	ND		0.0050	1	10/03/2013 13:38
Bromobenzene	ND		0.0050	1	10/03/2013 13:38
Bromoform	ND		0.0050	1	10/03/2013 13:38
Bromochloromethane	ND		0.0050	1	10/03/2013 13:38
Bromodichloromethane	ND		0.0050	1	10/03/2013 13:38
Bromoform	ND		0.0050	1	10/03/2013 13:38
Bromomethane	ND		0.0050	1	10/03/2013 13:38
2-Butanone (MEK)	ND		0.020	1	10/03/2013 13:38
t-Butyl alcohol (TBA)	ND		0.050	1	10/03/2013 13:38
n-Butyl benzene	ND		0.0050	1	10/03/2013 13:38
sec-Butyl benzene	ND		0.0050	1	10/03/2013 13:38
tert-Butyl benzene	ND		0.0050	1	10/03/2013 13:38
Carbon Disulfide	ND		0.0050	1	10/03/2013 13:38
Carbon Tetrachloride	ND		0.0050	1	10/03/2013 13:38
Chlorobenzene	ND		0.0050	1	10/03/2013 13:38
Chloroethane	ND		0.0050	1	10/03/2013 13:38
Chloroform	ND		0.0050	1	10/03/2013 13:38
Chloromethane	ND		0.0050	1	10/03/2013 13:38
2-Chlorotoluene	ND		0.0050	1	10/03/2013 13:38
4-Chlorotoluene	ND		0.0050	1	10/03/2013 13:38
Dibromochloromethane	ND		0.0050	1	10/03/2013 13:38
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/03/2013 13:38
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/03/2013 13:38
Dibromomethane	ND		0.0050	1	10/03/2013 13:38
1,2-Dichlorobenzene	ND		0.0050	1	10/03/2013 13:38
1,3-Dichlorobenzene	ND		0.0050	1	10/03/2013 13:38
1,4-Dichlorobenzene	ND		0.0050	1	10/03/2013 13:38
Dichlorodifluoromethane	ND		0.0050	1	10/03/2013 13:38
1,1-Dichloroethane	ND		0.0050	1	10/03/2013 13:38
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/03/2013 13:38
1,1-Dichloroethene	ND		0.0050	1	10/03/2013 13:38
cis-1,2-Dichloroethene	ND		0.0050	1	10/03/2013 13:38
trans-1,2-Dichloroethene	ND		0.0050	1	10/03/2013 13:38
1,2-Dichloropropane	ND		0.0050	1	10/03/2013 13:38
1,3-Dichloropropane	ND		0.0050	1	10/03/2013 13:38
2,2-Dichloropropane	ND		0.0050	1	10/03/2013 13:38
1,1-Dichloropropene	ND		0.0050	1	10/03/2013 13:38

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SBOT-10</b>	<b>1310053-005A</b>	<b>Soil</b>	<b>10/02/2013 08:17</b>	<b>GC16</b>	<b>82363</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/03/2013 13:38
trans-1,3-Dichloropropene	ND		0.0050	1	10/03/2013 13:38
Diisopropyl ether (DIPE)	ND		0.0050	1	10/03/2013 13:38
Ethylbenzene	ND		0.0050	1	10/03/2013 13:38
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/03/2013 13:38
Freon 113	ND		0.10	1	10/03/2013 13:38
Hexachlorobutadiene	ND		0.0050	1	10/03/2013 13:38
Hexachloroethane	ND		0.0050	1	10/03/2013 13:38
2-Hexanone	ND		0.0050	1	10/03/2013 13:38
Isopropylbenzene	ND		0.0050	1	10/03/2013 13:38
4-Isopropyl toluene	ND		0.0050	1	10/03/2013 13:38
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/03/2013 13:38
Methylene chloride	ND		0.0050	1	10/03/2013 13:38
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/03/2013 13:38
Naphthalene	ND		0.0050	1	10/03/2013 13:38
n-Propyl benzene	ND		0.0050	1	10/03/2013 13:38
Styrene	ND		0.0050	1	10/03/2013 13:38
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/03/2013 13:38
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/03/2013 13:38
Tetrachloroethene	ND		0.0050	1	10/03/2013 13:38
Toluene	ND		0.0050	1	10/03/2013 13:38
1,2,3-Trichlorobenzene	ND		0.0050	1	10/03/2013 13:38
1,2,4-Trichlorobenzene	ND		0.0050	1	10/03/2013 13:38
1,1,1-Trichloroethane	ND		0.0050	1	10/03/2013 13:38
1,1,2-Trichloroethane	ND		0.0050	1	10/03/2013 13:38
Trichloroethene	ND		0.0050	1	10/03/2013 13:38
Trichlorofluoromethane	ND		0.0050	1	10/03/2013 13:38
1,2,3-Trichloropropane	ND		0.0050	1	10/03/2013 13:38
1,2,4-Trimethylbenzene	ND		0.0050	1	10/03/2013 13:38
1,3,5-Trimethylbenzene	ND		0.0050	1	10/03/2013 13:38
Vinyl Chloride	ND		0.0050	1	10/03/2013 13:38
Xylenes, Total	ND		0.0050	1	10/03/2013 13:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	98		70-130		10/03/2013 13:38
toluene-d8	104		70-130		10/03/2013 13:38
4-BFB	100		70-130		10/03/2013 13:38

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWALL-9'</b>	<b>1310053-006A</b>	<b>Soil</b>	<b>10/02/2013 10:20</b>	<b>GC16</b>	<b>82363</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/02/2013 21:34
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/02/2013 21:34
Benzene	ND		0.0050	1	10/02/2013 21:34
Bromobenzene	ND		0.0050	1	10/02/2013 21:34
Bromoform	ND		0.0050	1	10/02/2013 21:34
Bromochloromethane	ND		0.0050	1	10/02/2013 21:34
Bromodichloromethane	ND		0.0050	1	10/02/2013 21:34
Bromoform	ND		0.0050	1	10/02/2013 21:34
Bromomethane	ND		0.0050	1	10/02/2013 21:34
2-Butanone (MEK)	ND		0.020	1	10/02/2013 21:34
t-Butyl alcohol (TBA)	ND		0.050	1	10/02/2013 21:34
n-Butyl benzene	ND		0.0050	1	10/02/2013 21:34
sec-Butyl benzene	ND		0.0050	1	10/02/2013 21:34
tert-Butyl benzene	ND		0.0050	1	10/02/2013 21:34
Carbon Disulfide	ND		0.0050	1	10/02/2013 21:34
Carbon Tetrachloride	ND		0.0050	1	10/02/2013 21:34
Chlorobenzene	ND		0.0050	1	10/02/2013 21:34
Chloroethane	ND		0.0050	1	10/02/2013 21:34
Chloroform	ND		0.0050	1	10/02/2013 21:34
Chloromethane	ND		0.0050	1	10/02/2013 21:34
2-Chlorotoluene	ND		0.0050	1	10/02/2013 21:34
4-Chlorotoluene	ND		0.0050	1	10/02/2013 21:34
Dibromochloromethane	ND		0.0050	1	10/02/2013 21:34
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/02/2013 21:34
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/02/2013 21:34
Dibromomethane	ND		0.0050	1	10/02/2013 21:34
1,2-Dichlorobenzene	ND		0.0050	1	10/02/2013 21:34
1,3-Dichlorobenzene	ND		0.0050	1	10/02/2013 21:34
1,4-Dichlorobenzene	ND		0.0050	1	10/02/2013 21:34
Dichlorodifluoromethane	ND		0.0050	1	10/02/2013 21:34
1,1-Dichloroethane	ND		0.0050	1	10/02/2013 21:34
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/02/2013 21:34
1,1-Dichloroethene	ND		0.0050	1	10/02/2013 21:34
cis-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 21:34
trans-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 21:34
1,2-Dichloropropane	ND		0.0050	1	10/02/2013 21:34
1,3-Dichloropropane	ND		0.0050	1	10/02/2013 21:34
2,2-Dichloropropane	ND		0.0050	1	10/02/2013 21:34
1,1-Dichloropropene	ND		0.0050	1	10/02/2013 21:34

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWALL-9'</b>	<b>1310053-006A</b>	<b>Soil</b>	<b>10/02/2013 10:20</b>	<b>GC16</b>	<b>82363</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 21:34
trans-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 21:34
Diisopropyl ether (DIPE)	ND		0.0050	1	10/02/2013 21:34
Ethylbenzene	ND		0.0050	1	10/02/2013 21:34
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/02/2013 21:34
Freon 113	ND		0.10	1	10/02/2013 21:34
Hexachlorobutadiene	ND		0.0050	1	10/02/2013 21:34
Hexachloroethane	ND		0.0050	1	10/02/2013 21:34
2-Hexanone	ND		0.0050	1	10/02/2013 21:34
Isopropylbenzene	ND		0.0050	1	10/02/2013 21:34
4-Isopropyl toluene	ND		0.0050	1	10/02/2013 21:34
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/02/2013 21:34
Methylene chloride	ND		0.0050	1	10/02/2013 21:34
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/02/2013 21:34
Naphthalene	ND		0.0050	1	10/02/2013 21:34
n-Propyl benzene	ND		0.0050	1	10/02/2013 21:34
Styrene	ND		0.0050	1	10/02/2013 21:34
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 21:34
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 21:34
Tetrachloroethene	ND		0.0050	1	10/02/2013 21:34
Toluene	ND		0.0050	1	10/02/2013 21:34
1,2,3-Trichlorobenzene	ND		0.0050	1	10/02/2013 21:34
1,2,4-Trichlorobenzene	ND		0.0050	1	10/02/2013 21:34
1,1,1-Trichloroethane	ND		0.0050	1	10/02/2013 21:34
1,1,2-Trichloroethane	ND		0.0050	1	10/02/2013 21:34
Trichloroethene	ND		0.0050	1	10/02/2013 21:34
Trichlorofluoromethane	ND		0.0050	1	10/02/2013 21:34
1,2,3-Trichloropropane	ND		0.0050	1	10/02/2013 21:34
1,2,4-Trimethylbenzene	ND		0.0050	1	10/02/2013 21:34
1,3,5-Trimethylbenzene	ND		0.0050	1	10/02/2013 21:34
Vinyl Chloride	ND		0.0050	1	10/02/2013 21:34
Xylenes, Total	ND		0.0050	1	10/02/2013 21:34
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	98		70-130		10/02/2013 21:34
toluene-d8	101		70-130		10/02/2013 21:34
4-BFB	99		70-130		10/02/2013 21:34

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWWALL-10'</b>	<b>1310053-007A</b>	<b>Soil</b>	<b>10/02/2013 10:35</b>	<b>GC16</b>	<b>82363</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/02/2013 22:20
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/02/2013 22:20
Benzene	ND		0.0050	1	10/02/2013 22:20
Bromobenzene	ND		0.0050	1	10/02/2013 22:20
Bromoform	ND		0.0050	1	10/02/2013 22:20
Bromochloromethane	ND		0.0050	1	10/02/2013 22:20
Bromodichloromethane	ND		0.0050	1	10/02/2013 22:20
Bromoform	ND		0.0050	1	10/02/2013 22:20
Bromomethane	ND		0.0050	1	10/02/2013 22:20
2-Butanone (MEK)	ND		0.020	1	10/02/2013 22:20
t-Butyl alcohol (TBA)	ND		0.050	1	10/02/2013 22:20
n-Butyl benzene	ND		0.0050	1	10/02/2013 22:20
sec-Butyl benzene	ND		0.0050	1	10/02/2013 22:20
tert-Butyl benzene	ND		0.0050	1	10/02/2013 22:20
Carbon Disulfide	ND		0.0050	1	10/02/2013 22:20
Carbon Tetrachloride	ND		0.0050	1	10/02/2013 22:20
Chlorobenzene	ND		0.0050	1	10/02/2013 22:20
Chloroethane	ND		0.0050	1	10/02/2013 22:20
Chloroform	ND		0.0050	1	10/02/2013 22:20
Chloromethane	ND		0.0050	1	10/02/2013 22:20
2-Chlorotoluene	ND		0.0050	1	10/02/2013 22:20
4-Chlorotoluene	ND		0.0050	1	10/02/2013 22:20
Dibromochloromethane	ND		0.0050	1	10/02/2013 22:20
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/02/2013 22:20
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/02/2013 22:20
Dibromomethane	ND		0.0050	1	10/02/2013 22:20
1,2-Dichlorobenzene	ND		0.0050	1	10/02/2013 22:20
1,3-Dichlorobenzene	ND		0.0050	1	10/02/2013 22:20
1,4-Dichlorobenzene	ND		0.0050	1	10/02/2013 22:20
Dichlorodifluoromethane	ND		0.0050	1	10/02/2013 22:20
1,1-Dichloroethane	ND		0.0050	1	10/02/2013 22:20
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/02/2013 22:20
1,1-Dichloroethene	ND		0.0050	1	10/02/2013 22:20
cis-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 22:20
trans-1,2-Dichloroethene	ND		0.0050	1	10/02/2013 22:20
1,2-Dichloropropane	ND		0.0050	1	10/02/2013 22:20
1,3-Dichloropropane	ND		0.0050	1	10/02/2013 22:20
2,2-Dichloropropane	ND		0.0050	1	10/02/2013 22:20
1,1-Dichloropropene	ND		0.0050	1	10/02/2013 22:20

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWWALL-10'</b>	<b>1310053-007A</b>	<b>Soil</b>	<b>10/02/2013 10:35</b>	<b>GC16</b>	<b>82363</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 22:20
trans-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 22:20
Diisopropyl ether (DIPE)	ND		0.0050	1	10/02/2013 22:20
Ethylbenzene	ND		0.0050	1	10/02/2013 22:20
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/02/2013 22:20
Freon 113	ND		0.10	1	10/02/2013 22:20
Hexachlorobutadiene	ND		0.0050	1	10/02/2013 22:20
Hexachloroethane	ND		0.0050	1	10/02/2013 22:20
2-Hexanone	ND		0.0050	1	10/02/2013 22:20
Isopropylbenzene	ND		0.0050	1	10/02/2013 22:20
4-Isopropyl toluene	ND		0.0050	1	10/02/2013 22:20
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/02/2013 22:20
Methylene chloride	ND		0.0050	1	10/02/2013 22:20
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/02/2013 22:20
Naphthalene	ND		0.0050	1	10/02/2013 22:20
n-Propyl benzene	ND		0.0050	1	10/02/2013 22:20
Styrene	ND		0.0050	1	10/02/2013 22:20
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 22:20
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 22:20
Tetrachloroethene	ND		0.0050	1	10/02/2013 22:20
Toluene	ND		0.0050	1	10/02/2013 22:20
1,2,3-Trichlorobenzene	ND		0.0050	1	10/02/2013 22:20
1,2,4-Trichlorobenzene	ND		0.0050	1	10/02/2013 22:20
1,1,1-Trichloroethane	ND		0.0050	1	10/02/2013 22:20
1,1,2-Trichloroethane	ND		0.0050	1	10/02/2013 22:20
Trichloroethene	ND		0.0050	1	10/02/2013 22:20
Trichlorofluoromethane	ND		0.0050	1	10/02/2013 22:20
1,2,3-Trichloropropane	ND		0.0050	1	10/02/2013 22:20
1,2,4-Trimethylbenzene	ND		0.0050	1	10/02/2013 22:20
1,3,5-Trimethylbenzene	ND		0.0050	1	10/02/2013 22:20
Vinyl Chloride	ND		0.0050	1	10/02/2013 22:20
Xylenes, Total	ND		0.0050	1	10/02/2013 22:20
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	97		70-130		10/02/2013 22:20
toluene-d8	100		70-130		10/02/2013 22:20
4-BFB	104		70-130		10/02/2013 22:20

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NEWALL-10'	1310053-008A	Soil	10/02/2013 10:40	GC28	82363
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	100	1000		10/02/2013 15:52
tert-Amyl methyl ether (TAME)	ND	5.0	1000		10/02/2013 15:52
Benzene	17	5.0	1000		10/02/2013 15:52
Bromobenzene	ND	5.0	1000		10/02/2013 15:52
Bromoform	ND	5.0	1000		10/02/2013 15:52
Bromochloromethane	ND	5.0	1000		10/02/2013 15:52
Bromodichloromethane	ND	5.0	1000		10/02/2013 15:52
Bromomethane	ND	5.0	1000		10/02/2013 15:52
2-Butanone (MEK)	ND	20	1000		10/02/2013 15:52
t-Butyl alcohol (TBA)	ND	50	1000		10/02/2013 15:52
n-Butyl benzene	9.3	5.0	1000		10/02/2013 15:52
sec-Butyl benzene	ND	5.0	1000		10/02/2013 15:52
tert-Butyl benzene	ND	5.0	1000		10/02/2013 15:52
Carbon Disulfide	ND	5.0	1000		10/02/2013 15:52
Carbon Tetrachloride	ND	5.0	1000		10/02/2013 15:52
Chlorobenzene	ND	5.0	1000		10/02/2013 15:52
Chloroethane	ND	5.0	1000		10/02/2013 15:52
Chloroform	ND	5.0	1000		10/02/2013 15:52
Chloromethane	ND	5.0	1000		10/02/2013 15:52
2-Chlorotoluene	ND	5.0	1000		10/02/2013 15:52
4-Chlorotoluene	ND	5.0	1000		10/02/2013 15:52
Dibromochloromethane	ND	5.0	1000		10/02/2013 15:52
1,2-Dibromo-3-chloropropane	ND	4.0	1000		10/02/2013 15:52
1,2-Dibromoethane (EDB)	ND	4.0	1000		10/02/2013 15:52
Dibromomethane	ND	5.0	1000		10/02/2013 15:52
1,2-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:52
1,3-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:52
1,4-Dichlorobenzene	ND	5.0	1000		10/02/2013 15:52
Dichlorodifluoromethane	ND	5.0	1000		10/02/2013 15:52
1,1-Dichloroethane	ND	5.0	1000		10/02/2013 15:52
1,2-Dichloroethane (1,2-DCA)	ND	4.0	1000		10/02/2013 15:52
1,1-Dichloroethene	ND	5.0	1000		10/02/2013 15:52
cis-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 15:52
trans-1,2-Dichloroethene	ND	5.0	1000		10/02/2013 15:52
1,2-Dichloropropane	ND	5.0	1000		10/02/2013 15:52
1,3-Dichloropropane	ND	5.0	1000		10/02/2013 15:52
2,2-Dichloropropane	ND	5.0	1000		10/02/2013 15:52
1,1-Dichloropropene	ND	5.0	1000		10/02/2013 15:52

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NEWALL-10'	1310053-008A	Soil	10/02/2013 10:40	GC28	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 15:52
trans-1,3-Dichloropropene	ND		5.0	1000	10/02/2013 15:52
Diisopropyl ether (DIPE)	ND		5.0	1000	10/02/2013 15:52
Ethylbenzene	39		5.0	1000	10/02/2013 15:52
Ethyl tert-butyl ether (ETBE)	ND		5.0	1000	10/02/2013 15:52
Freon 113	ND		100	1000	10/02/2013 15:52
Hexachlorobutadiene	ND		5.0	1000	10/02/2013 15:52
Hexachloroethane	ND		5.0	1000	10/02/2013 15:52
2-Hexanone	ND		5.0	1000	10/02/2013 15:52
Isopropylbenzene	ND		5.0	1000	10/02/2013 15:52
4-Isopropyl toluene	ND		5.0	1000	10/02/2013 15:52
Methyl-t-butyl ether (MTBE)	ND		5.0	1000	10/02/2013 15:52
Methylene chloride	ND		5.0	1000	10/02/2013 15:52
4-Methyl-2-pentanone (MIBK)	ND		5.0	1000	10/02/2013 15:52
Naphthalene	10		5.0	1000	10/02/2013 15:52
n-Propyl benzene	14		5.0	1000	10/02/2013 15:52
Styrene	ND		5.0	1000	10/02/2013 15:52
1,1,1,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 15:52
1,1,2,2-Tetrachloroethane	ND		5.0	1000	10/02/2013 15:52
Tetrachloroethene	ND		0.50	100	10/03/2013 13:28
Toluene	94		5.0	1000	10/02/2013 15:52
1,2,3-Trichlorobenzene	ND		5.0	1000	10/02/2013 15:52
1,2,4-Trichlorobenzene	ND		5.0	1000	10/02/2013 15:52
1,1,1-Trichloroethane	ND		5.0	1000	10/02/2013 15:52
1,1,2-Trichloroethane	ND		5.0	1000	10/02/2013 15:52
Trichloroethene	ND		5.0	1000	10/02/2013 15:52
Trichlorofluoromethane	ND		5.0	1000	10/02/2013 15:52
1,2,3-Trichloropropane	ND		5.0	1000	10/02/2013 15:52
1,2,4-Trimethylbenzene	74		5.0	1000	10/02/2013 15:52
1,3,5-Trimethylbenzene	22		5.0	1000	10/02/2013 15:52
Vinyl Chloride	ND		5.0	1000	10/02/2013 15:52
Xylenes, Total	170		5.0	1000	10/02/2013 15:52
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	102		70-130		10/02/2013 15:52
toluene-d8	97		70-130		10/02/2013 15:52
4-BFB	87		70-130		10/02/2013 15:52

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWALL-6'	1310053-009A	Soil	10/02/2013 10:50	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/03/2013 12:13
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/03/2013 12:13
Benzene	ND		0.0050	1	10/03/2013 12:13
Bromobenzene	ND		0.0050	1	10/03/2013 12:13
Bromoform	ND		0.0050	1	10/03/2013 12:13
Bromochloromethane	ND		0.0050	1	10/03/2013 12:13
Bromodichloromethane	ND		0.0050	1	10/03/2013 12:13
Bromoform	ND		0.0050	1	10/03/2013 12:13
Bromomethane	ND		0.0050	1	10/03/2013 12:13
2-Butanone (MEK)	ND		0.020	1	10/03/2013 12:13
t-Butyl alcohol (TBA)	ND		0.050	1	10/03/2013 12:13
n-Butyl benzene	ND		0.0050	1	10/03/2013 12:13
sec-Butyl benzene	ND		0.0050	1	10/03/2013 12:13
tert-Butyl benzene	ND		0.0050	1	10/03/2013 12:13
Carbon Disulfide	ND		0.0050	1	10/03/2013 12:13
Carbon Tetrachloride	ND		0.0050	1	10/03/2013 12:13
Chlorobenzene	ND		0.0050	1	10/03/2013 12:13
Chloroethane	ND		0.0050	1	10/03/2013 12:13
Chloroform	ND		0.0050	1	10/03/2013 12:13
Chloromethane	ND		0.0050	1	10/03/2013 12:13
2-Chlorotoluene	ND		0.0050	1	10/03/2013 12:13
4-Chlorotoluene	ND		0.0050	1	10/03/2013 12:13
Dibromochloromethane	ND		0.0050	1	10/03/2013 12:13
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/03/2013 12:13
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/03/2013 12:13
Dibromomethane	ND		0.0050	1	10/03/2013 12:13
1,2-Dichlorobenzene	ND		0.0050	1	10/03/2013 12:13
1,3-Dichlorobenzene	ND		0.0050	1	10/03/2013 12:13
1,4-Dichlorobenzene	ND		0.0050	1	10/03/2013 12:13
Dichlorodifluoromethane	ND		0.0050	1	10/03/2013 12:13
1,1-Dichloroethane	ND		0.0050	1	10/03/2013 12:13
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/03/2013 12:13
1,1-Dichloroethene	ND		0.0050	1	10/03/2013 12:13
cis-1,2-Dichloroethene	ND		0.0050	1	10/03/2013 12:13
trans-1,2-Dichloroethene	ND		0.0050	1	10/03/2013 12:13
1,2-Dichloropropane	ND		0.0050	1	10/03/2013 12:13
1,3-Dichloropropane	ND		0.0050	1	10/03/2013 12:13
2,2-Dichloropropane	ND		0.0050	1	10/03/2013 12:13
1,1-Dichloropropene	ND		0.0050	1	10/03/2013 12:13

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWALL-6'	1310053-009A	Soil	10/02/2013 10:50	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/03/2013 12:13
trans-1,3-Dichloropropene	ND		0.0050	1	10/03/2013 12:13
Diisopropyl ether (DIPE)	ND		0.0050	1	10/03/2013 12:13
Ethylbenzene	ND		0.0050	1	10/03/2013 12:13
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/03/2013 12:13
Freon 113	ND		0.10	1	10/03/2013 12:13
Hexachlorobutadiene	ND		0.0050	1	10/03/2013 12:13
Hexachloroethane	ND		0.0050	1	10/03/2013 12:13
2-Hexanone	ND		0.0050	1	10/03/2013 12:13
Isopropylbenzene	ND		0.0050	1	10/03/2013 12:13
4-Isopropyl toluene	ND		0.0050	1	10/03/2013 12:13
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/03/2013 12:13
Methylene chloride	ND		0.0050	1	10/03/2013 12:13
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/03/2013 12:13
Naphthalene	ND		0.0050	1	10/03/2013 12:13
n-Propyl benzene	ND		0.0050	1	10/03/2013 12:13
Styrene	ND		0.0050	1	10/03/2013 12:13
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/03/2013 12:13
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/03/2013 12:13
Tetrachloroethene	ND		0.0050	1	10/03/2013 12:13
Toluene	ND		0.0050	1	10/03/2013 12:13
1,2,3-Trichlorobenzene	ND		0.0050	1	10/03/2013 12:13
1,2,4-Trichlorobenzene	ND		0.0050	1	10/03/2013 12:13
1,1,1-Trichloroethane	ND		0.0050	1	10/03/2013 12:13
1,1,2-Trichloroethane	ND		0.0050	1	10/03/2013 12:13
Trichloroethene	ND		0.0050	1	10/03/2013 12:13
Trichlorofluoromethane	ND		0.0050	1	10/03/2013 12:13
1,2,3-Trichloropropane	ND		0.0050	1	10/03/2013 12:13
1,2,4-Trimethylbenzene	ND		0.0050	1	10/03/2013 12:13
1,3,5-Trimethylbenzene	ND		0.0050	1	10/03/2013 12:13
Vinyl Chloride	ND		0.0050	1	10/03/2013 12:13
Xylenes, Total	ND		0.0050	1	10/03/2013 12:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	95		70-130		10/03/2013 12:13
toluene-d8	104		70-130		10/03/2013 12:13
4-BFB	103		70-130		10/03/2013 12:13



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310053  
**Project:** #298931; FSI      **Extraction Method:** SW5030B  
**Date Received:** 10/2/13 11:57      **Analytical Method:** SW8015Bm  
**Date Prepared:** 10/2/13-10/3/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SE Corner-10'	1310053-001A	Soil	10/02/2013 10:15	GC7	82348
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	380		25	25	10/02/2013 18:54
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
2-fluorotoluene	43	S	70-130		10/02/2013 18:54
WW-1-9'	1310053-002A	Soil	10/02/2013 09:54	GC7	82348
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	3200		330	330	10/02/2013 19:24
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
2-fluorotoluene	84		70-130		10/02/2013 19:24
NWALL-10'	1310053-003A	Soil	10/02/2013 10:45	GC7	82348
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	790		200	200	10/02/2013 23:25
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	97		70-130		10/02/2013 23:25
NBOT-12.5	1310053-004A	Soil	10/02/2013 07:40	GC19	82395
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/03/2013 16:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-fluorotoluene	101		70-130		10/03/2013 16:08
SBOT-10	1310053-005A	Soil	10/02/2013 08:17	GC19	82395
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	11		1.0	1	10/03/2013 16:38
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d7	
2-fluorotoluene	92		70-130		10/03/2013 16:38

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13-10/3/13

**WorkOrder:** 1310053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWALL-9'</b>	<b>1310053-006A</b>	<b>Soil</b>	<b>10/02/2013 10:20</b>	<b>GC7</b>	<b>82348</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/02/2013 21:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-fluorotoluene	111		70-130		10/02/2013 21:55
<b>SWWALL-10'</b>	<b>1310053-007A</b>	<b>Soil</b>	<b>10/02/2013 10:35</b>	<b>GC19</b>	<b>82395</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/03/2013 17:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-fluorotoluene	101		70-130		10/03/2013 17:08
<b>NEWALL-10'</b>	<b>1310053-008A</b>	<b>Soil</b>	<b>10/02/2013 10:40</b>	<b>GC7</b>	<b>82377</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	620		200	200	10/02/2013 23:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	99		70-130		10/02/2013 23:55
<b>NWALL-6'</b>	<b>1310053-009A</b>	<b>Soil</b>	<b>10/02/2013 10:50</b>	<b>GC19</b>	<b>82377</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/03/2013 11:48
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-fluorotoluene	113		70-130		10/03/2013 11:48



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SE Corner-10'	1310053-001A	Soil	10/02/2013 10:15	GC11A	82347
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	54		1.0	1	10/02/2013 15:37
TPH-Motor Oil (C18-C36)	7.7		5.0	1	10/02/2013 15:37
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	112		70-130		10/02/2013 15:37
WW-1-9'	1310053-002A	Soil	10/02/2013 09:54	GC6A	82347
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1300		100	100	10/03/2013 10:48
TPH-Motor Oil (C18-C36)	2100		500	100	10/03/2013 10:48
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: e7,e4,e2,c1	
C9	178	S	70-130		10/03/2013 10:48
NWALL-10'	1310053-003A	Soil	10/02/2013 10:45	GC11A	82347
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	270		5.0	5	10/03/2013 14:21
TPH-Motor Oil (C18-C36)	110		25	5	10/03/2013 14:21
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	115		70-130		10/03/2013 14:21
NBOT-12.5	1310053-004A	Soil	10/02/2013 07:40	GC6A	82347
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/02/2013 19:12
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/02/2013 19:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		10/02/2013 19:12

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SBOT-10</b>	<b>1310053-005A</b>	<b>Soil</b>	<b>10/02/2013 08:17</b>	<b>GC6B</b>	<b>82347</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/02/2013 22:49
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/02/2013 22:49
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	114		70-130		10/02/2013 22:49
<b>SWALL-9'</b>	<b>1310053-006A</b>	<b>Soil</b>	<b>10/02/2013 10:20</b>	<b>GC6B</b>	<b>82347</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/02/2013 21:36
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/02/2013 21:36
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	121		70-130		10/02/2013 21:36
<b>SWWALL-10'</b>	<b>1310053-007A</b>	<b>Soil</b>	<b>10/02/2013 10:35</b>	<b>GC6B</b>	<b>82376</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/02/2013 19:12
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/02/2013 19:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	121		70-130		10/02/2013 19:12
<b>NEWALL-10'</b>	<b>1310053-008A</b>	<b>Soil</b>	<b>10/02/2013 10:40</b>	<b>GC11A</b>	<b>82376</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	330		1.0	1	10/02/2013 16:59
TPH-Motor Oil (C18-C36)	280		5.0	1	10/02/2013 16:59
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	118		70-130		10/02/2013 16:59

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 11:57  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310053  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWALL-6'	1310053-009A	Soil	10/02/2013 10:50	GC6B	82376
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/02/2013 20:24
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/02/2013 20:24
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		10/02/2013 20:24



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310053  
**BatchID:** 82363  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82363  
1310044-001AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04812	0.0050	0.050	-	96.2	70-130
Benzene	ND	0.0455	0.0050	0.050	-	91	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2368	0.050	0.20	-	118	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04503	0.0050	0.050	-	90.1	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04624	0.0040	0.050	-	92.5	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04644	0.0040	0.050	-	92.9	70-130
1,1-Dichloroethene	ND	0.03772	0.0050	0.050	-	75.4	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310053  
**BatchID:** 82363  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82363  
1310044-001AMS/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	0.05123	0.0050	0.050	-	102	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04833	0.0050	0.050	-	96.7	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.05048	0.0050	0.050	-	101	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0481	0.0050	0.050	-	96.2	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0386	0.0050	0.050	-	77.2	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
dibromofluoromethane	0.122	0.1229		0.12	98	98	70-130
toluene-d8	0.1279	0.1291		0.12	102	103	70-130
4-BFB	0.01295	0.01269		0.012	104	102	70-130

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

QA/QC Officer

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## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310053
<b>Date Prepared:</b>	10/2/13	<b>BatchID:</b>	82363
<b>Date Analyzed:</b>	10/2/13	<b>Extraction Method:</b>	SW5030B
<b>Instrument:</b>	GC16	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82363 1310044-001AMS/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)	0.04383	0.04046	0.050	ND	87.7	80.9	56-94	8.01	30
Benzene	0.04014	0.03992	0.050	ND	80.3	79.8	60-106	0.551	30
t-Butyl alcohol (TBA)	0.2068	0.2111	0.20	ND	103	106	56-140	2.08	30
Chlorobenzene	0.03987	0.0397	0.050	ND	79.7	79.4	61-108	0.437	30
1,2-Dibromoethane (EDB)	0.04174	0.04098	0.050	ND	83.5	82	54-119	1.82	30
1,2-Dichloroethane (1,2-DCA)	0.04084	0.04029	0.050	ND	81.7	80.6	48-115	1.36	30
1,1-Dichloroethene	0.03306	0.03266	0.050	ND	66.1	65.3	46-111	1.20	30
Diisopropyl ether (DIPE)	0.04554	0.04524	0.050	ND	91.1	90.5	53-111	0.663	30
Ethyl tert-butyl ether (ETBE)	0.04355	0.04289	0.050	ND	87.1	85.8	61-104	1.53	30
Methyl-t-butyl ether (MTBE)	0.04492	0.04465	0.050	ND	89.8	89.3	58-107	0.597	30
Toluene	0.04208	0.04157	0.050	ND	84.2	83.1	64-114	1.22	30
Trichloroethylene	0.03404	0.03359	0.050	ND	68.1	67.2	60-116	1.35	30
<b>Surrogate Recovery</b>									
dibromofluoromethane	0.1219	0.1225	0.12		98	98	70-130	0	30
toluene-d8	0.1279	0.127	0.12		102	102	70-130	0	30
4-BFB	0.0128	0.01267	0.012		102	101	70-130	1.06	30



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310053
<b>Date Prepared:</b>	10/1/13	<b>BatchID:</b>	82348
<b>Date Analyzed:</b>	10/3/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC7	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82348 1310053-006AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.5908	0.40	0.60	-	98.5	70-130
MTBE	ND	0.07411	0.050	0.10	-	74.1	70-130
Benzene	ND	0.09986	0.0050	0.10	-	99.9	70-130
Toluene	ND	0.09697	0.0050	0.10	-	97	70-130
Ethylbenzene	ND	0.1099	0.0050	0.10	-	110	70-130
Xylenes	ND	0.3367	0.0050	0.30	-	112	70-130

**Surrogate Recovery**

2-fluorotoluene	0.118	0.1152	0.10	118	115	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.5708	0.6003	0.60	ND	95.1	100	70-130	5.04	20
MTBE	0.08551	0.08347	0.10	ND	85.5	83.5	70-130	2.42	20
Benzene	0.1084	0.1085	0.10	ND	108	108	70-130	0	20
Toluene	0.1042	0.1037	0.10	ND	104	104	70-130	0	20
Ethylbenzene	0.1142	0.1156	0.10	ND	114	116	70-130	1.25	20
Xylenes	0.3591	0.3664	0.30	ND	120	122	70-130	2.02	20

**Surrogate Recovery**

2-fluorotoluene	0.1244	0.1245	0.10	124	124	70-130	0	20
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(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310053
<b>Date Prepared:</b>	10/2/13	<b>BatchID:</b>	82377
<b>Date Analyzed:</b>	10/3/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC7	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82377 1310053-009AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.5616	0.40	0.60	-	93.6	70-130
MTBE	ND	0.08119	0.050	0.10	-	81.2	70-130
Benzene	ND	0.1127	0.0050	0.10	-	113	70-130
Toluene	ND	0.1078	0.0050	0.10	-	108	70-130
Ethylbenzene	ND	0.1162	0.0050	0.10	-	116	70-130
Xylenes	ND	0.368	0.0050	0.30	-	123	70-130

**Surrogate Recovery**

2-fluorotoluene	0.1233	0.1251	0.10	123	125	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.6656	0.6204	0.60	ND	111	103	70-130	7.02	20
MTBE	0.08135	0.07919	0.10	ND	81.4	79.2	70-130	2.69	20
Benzene	0.1121	0.1111	0.10	ND	112	111	70-130	0.866	20
Toluene	0.1185	0.1177	0.10	ND	118	118	70-130	0	20
Ethylbenzene	0.1135	0.1116	0.10	ND	113	112	70-130	1.68	20
Xylenes	0.3591	0.3556	0.30	ND	120	119	70-130	0.966	20

**Surrogate Recovery**

2-fluorotoluene	0.1064	0.108	0.10	106	108	70-130	1.40	20
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(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310053
<b>Date Prepared:</b>	10/2/13	<b>BatchID:</b>	82395
<b>Date Analyzed:</b>	10/3/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC19	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82395 1310079-002AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6198	0.40	0.60	-	103	70-130
MTBE	ND	0.0787	0.050	0.10	-	78.7	70-130
Benzene	ND	0.116	0.0050	0.10	-	116	70-130
Toluene	ND	0.121	0.0050	0.10	-	121	70-130
Ethylbenzene	ND	0.1193	0.0050	0.10	-	119	70-130
Xylenes	ND	0.3665	0.0050	0.30	-	122	70-130

**Surrogate Recovery**

2-fluorotoluene	0.1145	0.1173	0.10	115	117	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR	0	470	NR	NR	-	NR	
MTBE	NR	NR	0	ND<76	NR	NR	-	NR	
Benzene	NR	NR	0	4.7	NR	NR	-	NR	
Toluene	NR	NR	0	7.1	NR	NR	-	NR	
Ethylbenzene	NR	NR	0	42	NR	NR	-	NR	
Xylenes	NR	NR	0	8.0	NR	NR	-	NR	

**Surrogate Recovery**

2-fluorotoluene	NR	NR	0	NR	NR	-	NR
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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/1/13  
**Date Analyzed:** 10/3/13  
**Instrument:** GC6A, GC6B  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310053  
**BatchID:** 82347  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82347

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### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	39.38	1.0	40	-	98.4	70-130
<b>Surrogate Recovery</b>							
C9	26.16	21.37		25	105	85	70-130

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(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

  
QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC6A  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310053  
**BatchID:** 82376  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82376

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### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	41.03	1.0	40	-	103	70-130
<b>Surrogate Recovery</b>							
C9	22.95	22.59		25	92	90	70-130

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# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1310053

ClientCode: AEL

WaterTrax  WriteOn  EDF  Excel  EQuIS  Email  HardCopy  ThirdParty  J-flag

## Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
CC:  
PO: #WC084376  
ProjectNo: #298931; FSI

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIConsultants.c

Requested TAT: 1 day

Date Received: 10/02/2013

Date Printed: 10/03/2013

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
1310053-001	SE Corner-10'	Soil	10/2/2013 10:15	<input type="checkbox"/>	A	A	A	A								
1310053-002	WW-1-9'	Soil	10/2/2013 9:54	<input type="checkbox"/>	A		A	A								
1310053-003	NWALL-10'	Soil	10/2/2013 10:45	<input type="checkbox"/>	A			A	A							
1310053-004	NBOT-12.5	Soil	10/2/2013 7:40	<input type="checkbox"/>	A				A							
1310053-005	SBOT-10	Soil	10/2/2013 8:17	<input type="checkbox"/>	A				A							
1310053-006	SWALL-9'	Soil	10/2/2013 10:20	<input type="checkbox"/>	A			A								
1310053-007	SWWALL-10'	Soil	10/2/2013 10:35	<input type="checkbox"/>	A			A								
1310053-008	NEWALL-10'	Soil	10/2/2013 10:40	<input type="checkbox"/>	A			A	A							
1310053-009	NWALL-6'	Soil	10/2/2013 10:50	<input type="checkbox"/>	A				A							

Test Legend:

1	8260B_S	2	PREDF REPORT	3	PRMISC	4	TPH(DMO)WSG_S	5	
6		7		8		9		10	
11		12							

The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A contain testgroup.

Prepared by: Maria Venegas

Comments: Same Day/24hr; -001, -002, -003 &amp; -008 rr @ lower DF for PCE per request

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.

1310053

Same Day

McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

**Telephone:** (925) 252-9262

Fax: (925) 252-9269

**CHAIN OF CUSTODY RECORD**  
**TURN AROUND TIME**

RUSH 24 HR 48 HR 72 HR 5 DAY  
PDF Required?  Yes  No

**Report To:** Jeremy Smith

**Bill To: AEI Consultants**

**Company:** AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597

PO# WC0843 76 Global ID: T0600100655

E-Mail: jsmith@aeiconsultatns.com

Telephone: (925) 746-6000, ext. 1128

Fax: (925) 746-6099

AEI Project No. 298931

**Sampler Signature:**

**Relinquished By:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

$$AB=3=\sqrt{13}$$

Relinquished By:

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

#### Relinquished Royalties

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

ICE/t° 5.4 VOAS O&G METALS OTHER  
GOOD CONDITION ✓  
HEAD SPACE ABSENT ✓  
DECHLORINATED IN LAB  
PRESERVATION APPROPRIATE CONTAINERS ✓  
PRESERVED IN LAB



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/2/2013 11:57:43 AM**

Project Name: **#298931; FSI**

Login Reviewed by:

Maria Venegas

WorkOrder N°: **1310053**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |  |                             |  |
|---|--|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 5.4°C NA <input type="checkbox"/> |                             |  |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>                   | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>                   | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                     |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310060

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:**

**Project Name:** #298931; FSI

**Project Received:** 10/02/2013

Analytical Report reviewed & approved for release on 10/03/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCAMPBELL](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310060

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d2	heavier gasoline range compounds are significant (aged gasoline?)
e4	gasoline range compounds are significant.



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 14:29  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310060  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWW-11-10'	1310060-001A	Soil	10/02/2013 12:10	GC16	82363
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		10/02/2013 23:45
tert-Amyl methyl ether (TAME)	ND	0.0050	1		10/02/2013 23:45
Benzene	ND	0.0050	1		10/02/2013 23:45
Bromobenzene	ND	0.0050	1		10/02/2013 23:45
Bromoform	ND	0.0050	1		10/02/2013 23:45
Bromochloromethane	ND	0.0050	1		10/02/2013 23:45
Bromodichloromethane	ND	0.0050	1		10/02/2013 23:45
Bromoform	ND	0.0050	1		10/02/2013 23:45
Bromomethane	ND	0.0050	1		10/02/2013 23:45
2-Butanone (MEK)	ND	0.020	1		10/02/2013 23:45
t-Butyl alcohol (TBA)	ND	0.050	1		10/02/2013 23:45
n-Butyl benzene	<b>0.020</b>	0.0050	1		10/02/2013 23:45
sec-Butyl benzene	ND	0.0050	1		10/02/2013 23:45
tert-Butyl benzene	ND	0.0050	1		10/02/2013 23:45
Carbon Disulfide	ND	0.0050	1		10/02/2013 23:45
Carbon Tetrachloride	ND	0.0050	1		10/02/2013 23:45
Chlorobenzene	ND	0.0050	1		10/02/2013 23:45
Chloroethane	ND	0.0050	1		10/02/2013 23:45
Chloroform	ND	0.0050	1		10/02/2013 23:45
Chloromethane	ND	0.0050	1		10/02/2013 23:45
2-Chlorotoluene	ND	0.0050	1		10/02/2013 23:45
4-Chlorotoluene	ND	0.0050	1		10/02/2013 23:45
Dibromochloromethane	ND	0.0050	1		10/02/2013 23:45
1,2-Dibromo-3-chloropropane	ND	0.0040	1		10/02/2013 23:45
1,2-Dibromoethane (EDB)	ND	0.0040	1		10/02/2013 23:45
Dibromomethane	ND	0.0050	1		10/02/2013 23:45
1,2-Dichlorobenzene	ND	0.0050	1		10/02/2013 23:45
1,3-Dichlorobenzene	ND	0.0050	1		10/02/2013 23:45
1,4-Dichlorobenzene	ND	0.0050	1		10/02/2013 23:45
Dichlorodifluoromethane	ND	0.0050	1		10/02/2013 23:45
1,1-Dichloroethane	ND	0.0050	1		10/02/2013 23:45
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		10/02/2013 23:45
1,1-Dichloroethene	ND	0.0050	1		10/02/2013 23:45
cis-1,2-Dichloroethene	ND	0.0050	1		10/02/2013 23:45
trans-1,2-Dichloroethene	ND	0.0050	1		10/02/2013 23:45
1,2-Dichloropropane	ND	0.0050	1		10/02/2013 23:45
1,3-Dichloropropane	ND	0.0050	1		10/02/2013 23:45
2,2-Dichloropropane	ND	0.0050	1		10/02/2013 23:45
1,1-Dichloropropene	ND	0.0050	1		10/02/2013 23:45

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/2/13 14:29  
**Date Prepared:** 10/2/13

**WorkOrder:** 1310060  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWW-11-10'	1310060-001A	Soil	10/02/2013 12:10	GC16	82363
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 23:45
trans-1,3-Dichloropropene	ND		0.0050	1	10/02/2013 23:45
Diisopropyl ether (DIPE)	ND		0.0050	1	10/02/2013 23:45
Ethylbenzene	ND		0.0050	1	10/02/2013 23:45
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/02/2013 23:45
Freon 113	ND		0.10	1	10/02/2013 23:45
Hexachlorobutadiene	ND		0.0050	1	10/02/2013 23:45
Hexachloroethane	ND		0.0050	1	10/02/2013 23:45
2-Hexanone	ND		0.0050	1	10/02/2013 23:45
Isopropylbenzene	ND		0.0050	1	10/02/2013 23:45
4-Isopropyl toluene	ND		0.0050	1	10/02/2013 23:45
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/02/2013 23:45
Methylene chloride	ND		0.0050	1	10/02/2013 23:45
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/02/2013 23:45
Naphthalene	<b>0.025</b>		0.0050	1	10/02/2013 23:45
n-Propyl benzene	ND		0.0050	1	10/02/2013 23:45
Styrene	ND		0.0050	1	10/02/2013 23:45
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 23:45
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/02/2013 23:45
Tetrachloroethene	ND		0.0050	1	10/02/2013 23:45
Toluene	ND		0.0050	1	10/02/2013 23:45
1,2,3-Trichlorobenzene	ND		0.0050	1	10/02/2013 23:45
1,2,4-Trichlorobenzene	ND		0.0050	1	10/02/2013 23:45
1,1,1-Trichloroethane	ND		0.0050	1	10/02/2013 23:45
1,1,2-Trichloroethane	ND		0.0050	1	10/02/2013 23:45
Trichloroethene	ND		0.0050	1	10/02/2013 23:45
Trichlorofluoromethane	ND		0.0050	1	10/02/2013 23:45
1,2,3-Trichloropropane	ND		0.0050	1	10/02/2013 23:45
1,2,4-Trimethylbenzene	<b>0.14</b>		0.0050	1	10/02/2013 23:45
1,3,5-Trimethylbenzene	<b>0.036</b>		0.0050	1	10/02/2013 23:45
Vinyl Chloride	ND		0.0050	1	10/02/2013 23:45
Xylenes, Total	<b>0.024</b>		0.0050	1	10/02/2013 23:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	97		70-130		10/02/2013 23:45
toluene-d8	100		70-130		10/02/2013 23:45
4-BFB	93		70-130		10/02/2013 23:45



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310060

**Project:** #298931; FSI

**Extraction Method:** SW5030B

**Date Received:** 10/2/13 14:29

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 10/2/13

**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWW-11-10'	1310060-001A	Soil	10/02/2013 12:10	GC7	82377
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	1.5		1.0	1	10/03/2013 02:56
MTBE	ND		0.050	1	10/03/2013 02:56
Benzene	ND		0.0050	1	10/03/2013 02:56
Toluene	ND		0.0050	1	10/03/2013 02:56
Ethylbenzene	ND		0.0050	1	10/03/2013 02:56
Xylenes	0.037		0.0050	1	10/03/2013 02:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d2	
2-fluorotoluene	113		70-130		10/03/2013 02:56



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310060

**Project:** #298931; FSI

**Extraction Method** SW3550B/3630C

**Date Received:** 10/2/13 14:29

**Analytical Method:** SW8015B

**Date Prepared:** 10/2/13

**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NWW-11-10'	1310060-001A	Soil	10/02/2013 12:10	GC6A	82376
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.3		1.0	1	10/03/2013 00:01
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/03/2013 00:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	98		70-130		10/03/2013 00:01



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310060  
**BatchID:** 82363  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82363  
 1310044-001AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04812	0.0050	0.050	-	96.2	70-130
Benzene	ND	0.0455	0.0050	0.050	-	91	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2368	0.050	0.20	-	118	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04503	0.0050	0.050	-	90.1	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04624	0.0040	0.050	-	92.5	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04644	0.0040	0.050	-	92.9	70-130
1,1-Dichloroethene	ND	0.03772	0.0050	0.050	-	75.4	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310060  
**BatchID:** 82363  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82363  
1310044-001AMS/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	0.05123	0.0050	0.050	-	102	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04833	0.0050	0.050	-	96.7	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.05048	0.0050	0.050	-	101	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0481	0.0050	0.050	-	96.2	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0386	0.0050	0.050	-	77.2	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
dibromofluoromethane	0.122	0.1229		0.12	98	98	70-130
toluene-d8	0.1279	0.1291		0.12	102	103	70-130
4-BFB	0.01295	0.01269		0.012	104	102	70-130

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants      **WorkOrder:** 1310060  
**Date Prepared:** 10/2/13      **BatchID:** 82363  
**Date Analyzed:** 10/2/13      **Extraction Method:** SW5030B  
**Instrument:** GC16      **Analytical Method:** SW8260B  
**Matrix:** Soil      **Unit:** mg/Kg  
**Project:** #298931; FSI      **Sample ID:** MB/LCS-82363  
1310044-001AMS/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)	0.04383	0.04046	0.050	ND	87.7	80.9	56-94	8.01	30
Benzene	0.04014	0.03992	0.050	ND	80.3	79.8	60-106	0.551	30
t-Butyl alcohol (TBA)	0.2068	0.2111	0.20	ND	103	106	56-140	2.08	30
Chlorobenzene	0.03987	0.0397	0.050	ND	79.7	79.4	61-108	0.437	30
1,2-Dibromoethane (EDB)	0.04174	0.04098	0.050	ND	83.5	82	54-119	1.82	30
1,2-Dichloroethane (1,2-DCA)	0.04084	0.04029	0.050	ND	81.7	80.6	48-115	1.36	30
1,1-Dichloroethene	0.03306	0.03266	0.050	ND	66.1	65.3	46-111	1.20	30
Diisopropyl ether (DIPE)	0.04554	0.04524	0.050	ND	91.1	90.5	53-111	0.663	30
Ethyl tert-butyl ether (ETBE)	0.04355	0.04289	0.050	ND	87.1	85.8	61-104	1.53	30
Methyl-t-butyl ether (MTBE)	0.04492	0.04465	0.050	ND	89.8	89.3	58-107	0.597	30
Toluene	0.04208	0.04157	0.050	ND	84.2	83.1	64-114	1.22	30
Trichloroethylene	0.03404	0.03359	0.050	ND	68.1	67.2	60-116	1.35	30
<b>Surrogate Recovery</b>									
dibromofluoromethane	0.1219	0.1225	0.12		98	98	70-130	0	30
toluene-d8	0.1279	0.127	0.12		102	102	70-130	0	30
4-BFB	0.0128	0.01267	0.012		102	101	70-130	1.06	30



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/3/13  
**Instrument:** GC7  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310060  
**BatchID:** 82377  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82377  
1310053-009AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.5616	0.40	0.60	-	93.6	70-130
MTBE	ND	0.08119	0.050	0.10	-	81.2	70-130
Benzene	ND	0.1127	0.0050	0.10	-	113	70-130
Toluene	ND	0.1078	0.0050	0.10	-	108	70-130
Ethylbenzene	ND	0.1162	0.0050	0.10	-	116	70-130
Xylenes	ND	0.368	0.0050	0.30	-	123	70-130

#### Surrogate Recovery

2-fluorotoluene	0.1233	0.1251	0.10	123	125	70-130
-----------------	--------	--------	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.6656	0.6204	0.60	ND	111	103	70-130	7.02	20
MTBE	0.08135	0.07919	0.10	ND	81.4	79.2	70-130	2.69	20
Benzene	0.1121	0.1111	0.10	ND	112	111	70-130	0.866	20
Toluene	0.1185	0.1177	0.10	ND	118	118	70-130	0	20
Ethylbenzene	0.1135	0.1116	0.10	ND	113	112	70-130	1.68	20
Xylenes	0.3591	0.3556	0.30	ND	120	119	70-130	0.966	20

#### Surrogate Recovery

2-fluorotoluene	0.1064	0.108	0.10	106	108	70-130	1.40	20
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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/2/13  
**Date Analyzed:** 10/2/13  
**Instrument:** GC6A  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310060  
**BatchID:** 82376  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82376

---

### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	41.03	1.0	40	-	103	70-130
<b>Surrogate Recovery</b>							
C9	22.95	22.59		25	92	90	70-130

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1310060

ClientCode: AEL

WaterTrax  WriteOn  EDF  Excel  EQuIS  Email  HardCopy  ThirdParty  J-flag

Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
cc:  
PO:  
ProjectNo: #298931; FSI

Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIConsultants.co

Requested TAT:

1 day

Date Received:

10/02/2013

Date Printed:

10/02/2013

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	
1310060-001	NWW-11-10'	Soil	10/2/2013 12:10	<input type="checkbox"/>	A	A											

Test Legend:

1	8260B_S	2	TPH(DMO)WSG_S	3		4		5
6		7		8		9		10
11		12						

The following SamplID: 001A contains testgroup.

Prepared by: Jena Alfaro

**Comments:**

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.





## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/2/2013 2:29:01 PM**

Project Name: **#298931; FSI**

Login Reviewed by: **Jena Alfaro**

WorkOrder N°: **1310060**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |  |                             |  |
|---|--|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 5.4°C NA <input type="checkbox"/> |                             |  |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>                   | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>                   | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                     |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/>        | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310146

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Andrew Wallace

**Project P.O.:** #WC084378

**Project Name:** #298931; 1630 Park St. Alameda

**Project Received:** 10/04/2013

Analytical Report reviewed & approved for release on 10/07/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCAMPBELL](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**WorkOrder:** 1310146

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

S	spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant

### Quality Control Qualifier

F2	LCS recovery for this compound is outside of acceptance limits.
----	---



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
N Wall2-10'	1310146-001A	Soil	10/04/2013 07:20	GC16	82464
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	100	1000		10/04/2013 13:29
tert-Amyl methyl ether (TAME)	ND	5.0	1000		10/04/2013 13:29
Benzene	ND	5.0	1000		10/04/2013 13:29
Bromobenzene	ND	5.0	1000		10/04/2013 13:29
Bromoform	ND	5.0	1000		10/04/2013 13:29
Bromochloromethane	ND	5.0	1000		10/04/2013 13:29
Bromodichloromethane	ND	5.0	1000		10/04/2013 13:29
Bromoform	ND	5.0	1000		10/04/2013 13:29
Bromomethane	ND	5.0	1000		10/04/2013 13:29
2-Butanone (MEK)	ND	20	1000		10/04/2013 13:29
t-Butyl alcohol (TBA)	ND	50	1000		10/04/2013 13:29
n-Butyl benzene	9.1	5.0	1000		10/04/2013 13:29
sec-Butyl benzene	ND	5.0	1000		10/04/2013 13:29
tert-Butyl benzene	ND	5.0	1000		10/04/2013 13:29
Carbon Disulfide	ND	5.0	1000		10/04/2013 13:29
Carbon Tetrachloride	ND	5.0	1000		10/04/2013 13:29
Chlorobenzene	ND	5.0	1000		10/04/2013 13:29
Chloroethane	ND	5.0	1000		10/04/2013 13:29
Chloroform	ND	5.0	1000		10/04/2013 13:29
Chloromethane	ND	5.0	1000		10/04/2013 13:29
2-Chlorotoluene	ND	5.0	1000		10/04/2013 13:29
4-Chlorotoluene	ND	5.0	1000		10/04/2013 13:29
Dibromochloromethane	ND	5.0	1000		10/04/2013 13:29
1,2-Dibromo-3-chloropropane	ND	4.0	1000		10/04/2013 13:29
1,2-Dibromoethane (EDB)	ND	4.0	1000		10/04/2013 13:29
Dibromomethane	ND	5.0	1000		10/04/2013 13:29
1,2-Dichlorobenzene	ND	5.0	1000		10/04/2013 13:29
1,3-Dichlorobenzene	ND	5.0	1000		10/04/2013 13:29
1,4-Dichlorobenzene	ND	5.0	1000		10/04/2013 13:29
Dichlorodifluoromethane	ND	5.0	1000		10/04/2013 13:29
1,1-Dichloroethane	ND	5.0	1000		10/04/2013 13:29
1,2-Dichloroethane (1,2-DCA)	ND	4.0	1000		10/04/2013 13:29
1,1-Dichloroethene	ND	5.0	1000		10/04/2013 13:29
cis-1,2-Dichloroethene	ND	5.0	1000		10/04/2013 13:29
trans-1,2-Dichloroethene	ND	5.0	1000		10/04/2013 13:29
1,2-Dichloropropane	ND	5.0	1000		10/04/2013 13:29
1,3-Dichloropropane	ND	5.0	1000		10/04/2013 13:29
2,2-Dichloropropane	ND	5.0	1000		10/04/2013 13:29
1,1-Dichloropropene	ND	5.0	1000		10/04/2013 13:29

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
N Wall2-10'	1310146-001A	Soil	10/04/2013 07:20	GC16	82464
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		5.0	1000	10/04/2013 13:29
trans-1,3-Dichloropropene	ND		5.0	1000	10/04/2013 13:29
Diisopropyl ether (DIPE)	ND		5.0	1000	10/04/2013 13:29
Ethylbenzene	25		5.0	1000	10/04/2013 13:29
Ethyl tert-butyl ether (ETBE)	ND		5.0	1000	10/04/2013 13:29
Freon 113	ND		100	1000	10/04/2013 13:29
Hexachlorobutadiene	ND		5.0	1000	10/04/2013 13:29
Hexachloroethane	ND		5.0	1000	10/04/2013 13:29
2-Hexanone	ND		5.0	1000	10/04/2013 13:29
Isopropylbenzene	ND		5.0	1000	10/04/2013 13:29
4-Isopropyl toluene	ND		5.0	1000	10/04/2013 13:29
Methyl-t-butyl ether (MTBE)	ND		5.0	1000	10/04/2013 13:29
Methylene chloride	ND		5.0	1000	10/04/2013 13:29
4-Methyl-2-pentanone (MIBK)	ND		5.0	1000	10/04/2013 13:29
Naphthalene	12		5.0	1000	10/04/2013 13:29
n-Propyl benzene	9.8		5.0	1000	10/04/2013 13:29
Styrene	ND		5.0	1000	10/04/2013 13:29
1,1,1,2-Tetrachloroethane	ND		5.0	1000	10/04/2013 13:29
1,1,2,2-Tetrachloroethane	ND		5.0	1000	10/04/2013 13:29
Tetrachloroethene	ND		5.0	1000	10/04/2013 13:29
Toluene	17		5.0	1000	10/04/2013 13:29
1,2,3-Trichlorobenzene	ND		5.0	1000	10/04/2013 13:29
1,2,4-Trichlorobenzene	ND		5.0	1000	10/04/2013 13:29
1,1,1-Trichloroethane	ND		5.0	1000	10/04/2013 13:29
1,1,2-Trichloroethane	ND		5.0	1000	10/04/2013 13:29
Trichloroethene	ND		5.0	1000	10/04/2013 13:29
Trichlorofluoromethane	ND		5.0	1000	10/04/2013 13:29
1,2,3-Trichloropropane	ND		5.0	1000	10/04/2013 13:29
1,2,4-Trimethylbenzene	66		5.0	1000	10/04/2013 13:29
1,3,5-Trimethylbenzene	20		5.0	1000	10/04/2013 13:29
Vinyl Chloride	ND		5.0	1000	10/04/2013 13:29
Xylenes, Total	110		5.0	1000	10/04/2013 13:29
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	99		70-130		10/04/2013 13:29
toluene-d8	95		70-130		10/04/2013 13:29
4-BFB	89		70-130		10/04/2013 13:29

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310146  
**Project:** #298931; 1630 Park St. Alameda      **Extraction Method:** SW5030B  
**Date Received:** 10/4/13 9:48      **Analytical Method:** SW8260B  
**Date Prepared:** 10/4/13      **Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NE Wall2-10'	1310146-002A	Soil	10/04/2013 08:00	GC16	82464
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	400	4000		10/04/2013 15:37
tert-Amyl methyl ether (TAME)	ND	20	4000		10/04/2013 15:37
Benzene	<b>29</b>	20	4000		10/04/2013 15:37
Bromobenzene	ND	20	4000		10/04/2013 15:37
Bromoform	ND	20	4000		10/04/2013 15:37
Bromochloromethane	ND	20	4000		10/04/2013 15:37
Bromodichloromethane	ND	20	4000		10/04/2013 15:37
Bromomethane	ND	20	4000		10/04/2013 15:37
2-Butanone (MEK)	ND	80	4000		10/04/2013 15:37
t-Butyl alcohol (TBA)	ND	200	4000		10/04/2013 15:37
n-Butyl benzene	<b>37</b>	20	4000		10/04/2013 15:37
sec-Butyl benzene	ND	20	4000		10/04/2013 15:37
tert-Butyl benzene	ND	20	4000		10/04/2013 15:37
Carbon Disulfide	ND	20	4000		10/04/2013 15:37
Carbon Tetrachloride	ND	20	4000		10/04/2013 15:37
Chlorobenzene	ND	20	4000		10/04/2013 15:37
Chloroethane	ND	20	4000		10/04/2013 15:37
Chloroform	ND	20	4000		10/04/2013 15:37
Chloromethane	ND	20	4000		10/04/2013 15:37
2-Chlorotoluene	ND	20	4000		10/04/2013 15:37
4-Chlorotoluene	ND	20	4000		10/04/2013 15:37
Dibromochloromethane	ND	20	4000		10/04/2013 15:37
1,2-Dibromo-3-chloropropane	ND	16	4000		10/04/2013 15:37
1,2-Dibromoethane (EDB)	ND	16	4000		10/04/2013 15:37
Dibromomethane	ND	20	4000		10/04/2013 15:37
1,2-Dichlorobenzene	ND	20	4000		10/04/2013 15:37
1,3-Dichlorobenzene	ND	20	4000		10/04/2013 15:37
1,4-Dichlorobenzene	ND	20	4000		10/04/2013 15:37
Dichlorodifluoromethane	ND	20	4000		10/04/2013 15:37
1,1-Dichloroethane	ND	20	4000		10/04/2013 15:37
1,2-Dichloroethane (1,2-DCA)	ND	16	4000		10/04/2013 15:37
1,1-Dichloroethene	ND	20	4000		10/04/2013 15:37
cis-1,2-Dichloroethene	ND	20	4000		10/04/2013 15:37
trans-1,2-Dichloroethene	ND	20	4000		10/04/2013 15:37
1,2-Dichloropropane	ND	20	4000		10/04/2013 15:37
1,3-Dichloropropane	ND	20	4000		10/04/2013 15:37
2,2-Dichloropropane	ND	20	4000		10/04/2013 15:37
1,1-Dichloropropene	ND	20	4000		10/04/2013 15:37

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NE Wall2-10'	1310146-002A	Soil	10/04/2013 08:00	GC16	82464
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		20	4000	10/04/2013 15:37
trans-1,3-Dichloropropene	ND		20	4000	10/04/2013 15:37
Diisopropyl ether (DIPE)	ND		20	4000	10/04/2013 15:37
Ethylbenzene	150		20	4000	10/04/2013 15:37
Ethyl tert-butyl ether (ETBE)	ND		20	4000	10/04/2013 15:37
Freon 113	ND		400	4000	10/04/2013 15:37
Hexachlorobutadiene	ND		20	4000	10/04/2013 15:37
Hexachloroethane	ND		20	4000	10/04/2013 15:37
2-Hexanone	ND		20	4000	10/04/2013 15:37
Isopropylbenzene	ND		20	4000	10/04/2013 15:37
4-Isopropyl toluene	ND		20	4000	10/04/2013 15:37
Methyl-t-butyl ether (MTBE)	ND		20	4000	10/04/2013 15:37
Methylene chloride	ND		20	4000	10/04/2013 15:37
4-Methyl-2-pentanone (MIBK)	ND		20	4000	10/04/2013 15:37
Naphthalene	59		20	4000	10/04/2013 15:37
n-Propyl benzene	45		20	4000	10/04/2013 15:37
Styrene	ND		20	4000	10/04/2013 15:37
1,1,1,2-Tetrachloroethane	ND		20	4000	10/04/2013 15:37
1,1,2,2-Tetrachloroethane	ND		20	4000	10/04/2013 15:37
Tetrachloroethene	ND		20	4000	10/04/2013 15:37
Toluene	350		20	4000	10/04/2013 15:37
1,2,3-Trichlorobenzene	ND		20	4000	10/04/2013 15:37
1,2,4-Trichlorobenzene	ND		20	4000	10/04/2013 15:37
1,1,1-Trichloroethane	ND		20	4000	10/04/2013 15:37
1,1,2-Trichloroethane	ND		20	4000	10/04/2013 15:37
Trichloroethene	ND		20	4000	10/04/2013 15:37
Trichlorofluoromethane	ND		20	4000	10/04/2013 15:37
1,2,3-Trichloropropane	ND		20	4000	10/04/2013 15:37
1,2,4-Trimethylbenzene	270		20	4000	10/04/2013 15:37
1,3,5-Trimethylbenzene	85		20	4000	10/04/2013 15:37
Vinyl Chloride	ND		20	4000	10/04/2013 15:37
Xylenes, Total	680		20	4000	10/04/2013 15:37
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	99		70-130		10/04/2013 15:37
toluene-d8	94		70-130		10/04/2013 15:37
4-BFB	92		70-130		10/04/2013 15:37

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NE Wall2-6'	1310146-003A	Soil	10/04/2013 08:00	GC16	82495
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		10/04/2013 12:46
tert-Amyl methyl ether (TAME)	ND	0.0050	1		10/04/2013 12:46
Benzene	ND	0.0050	1		10/04/2013 12:46
Bromobenzene	ND	0.0050	1		10/04/2013 12:46
Bromoform	ND	0.0050	1		10/04/2013 12:46
Bromochloromethane	ND	0.0050	1		10/04/2013 12:46
Bromodichloromethane	ND	0.0050	1		10/04/2013 12:46
Bromomethane	ND	0.0050	1		10/04/2013 12:46
2-Butanone (MEK)	ND	0.020	1		10/04/2013 12:46
t-Butyl alcohol (TBA)	ND	0.050	1		10/04/2013 12:46
n-Butyl benzene	ND	0.0050	1		10/04/2013 12:46
sec-Butyl benzene	ND	0.0050	1		10/04/2013 12:46
tert-Butyl benzene	ND	0.0050	1		10/04/2013 12:46
Carbon Disulfide	ND	0.0050	1		10/04/2013 12:46
Carbon Tetrachloride	ND	0.0050	1		10/04/2013 12:46
Chlorobenzene	ND	0.0050	1		10/04/2013 12:46
Chloroethane	ND	0.0050	1		10/04/2013 12:46
Chloroform	ND	0.0050	1		10/04/2013 12:46
Chloromethane	ND	0.0050	1		10/04/2013 12:46
2-Chlorotoluene	ND	0.0050	1		10/04/2013 12:46
4-Chlorotoluene	ND	0.0050	1		10/04/2013 12:46
Dibromochloromethane	ND	0.0050	1		10/04/2013 12:46
1,2-Dibromo-3-chloropropane	ND	0.0040	1		10/04/2013 12:46
1,2-Dibromoethane (EDB)	ND	0.0040	1		10/04/2013 12:46
Dibromomethane	ND	0.0050	1		10/04/2013 12:46
1,2-Dichlorobenzene	ND	0.0050	1		10/04/2013 12:46
1,3-Dichlorobenzene	ND	0.0050	1		10/04/2013 12:46
1,4-Dichlorobenzene	ND	0.0050	1		10/04/2013 12:46
Dichlorodifluoromethane	ND	0.0050	1		10/04/2013 12:46
1,1-Dichloroethane	ND	0.0050	1		10/04/2013 12:46
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		10/04/2013 12:46
1,1-Dichloroethene	ND	0.0050	1		10/04/2013 12:46
cis-1,2-Dichloroethene	ND	0.0050	1		10/04/2013 12:46
trans-1,2-Dichloroethene	ND	0.0050	1		10/04/2013 12:46
1,2-Dichloropropane	ND	0.0050	1		10/04/2013 12:46
1,3-Dichloropropane	ND	0.0050	1		10/04/2013 12:46
2,2-Dichloropropane	ND	0.0050	1		10/04/2013 12:46
1,1-Dichloropropene	ND	0.0050	1		10/04/2013 12:46

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
NE Wall2-6'	1310146-003A	Soil	10/04/2013 08:00	GC16	82495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/04/2013 12:46
trans-1,3-Dichloropropene	ND		0.0050	1	10/04/2013 12:46
Diisopropyl ether (DIPE)	ND		0.0050	1	10/04/2013 12:46
Ethylbenzene	ND		0.0050	1	10/04/2013 12:46
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/04/2013 12:46
Freon 113	ND		0.10	1	10/04/2013 12:46
Hexachlorobutadiene	ND		0.0050	1	10/04/2013 12:46
Hexachloroethane	ND		0.0050	1	10/04/2013 12:46
2-Hexanone	ND		0.0050	1	10/04/2013 12:46
Isopropylbenzene	ND		0.0050	1	10/04/2013 12:46
4-Isopropyl toluene	ND		0.0050	1	10/04/2013 12:46
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/04/2013 12:46
Methylene chloride	ND		0.0050	1	10/04/2013 12:46
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/04/2013 12:46
Naphthalene	ND		0.0050	1	10/04/2013 12:46
n-Propyl benzene	ND		0.0050	1	10/04/2013 12:46
Styrene	ND		0.0050	1	10/04/2013 12:46
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/04/2013 12:46
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/04/2013 12:46
Tetrachloroethene	<b>0.045</b>		0.0050	1	10/04/2013 12:46
Toluene	ND		0.0050	1	10/04/2013 12:46
1,2,3-Trichlorobenzene	ND		0.0050	1	10/04/2013 12:46
1,2,4-Trichlorobenzene	ND		0.0050	1	10/04/2013 12:46
1,1,1-Trichloroethane	ND		0.0050	1	10/04/2013 12:46
1,1,2-Trichloroethane	ND		0.0050	1	10/04/2013 12:46
Trichloroethene	ND		0.0050	1	10/04/2013 12:46
Trichlorofluoromethane	ND		0.0050	1	10/04/2013 12:46
1,2,3-Trichloropropane	ND		0.0050	1	10/04/2013 12:46
1,2,4-Trimethylbenzene	ND		0.0050	1	10/04/2013 12:46
1,3,5-Trimethylbenzene	ND		0.0050	1	10/04/2013 12:46
Vinyl Chloride	ND		0.0050	1	10/04/2013 12:46
Xylenes, Total	<b>0.0062</b>		0.0050	1	10/04/2013 12:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
dibromofluoromethane	95		70-130		10/04/2013 12:46
toluene-d8	104		70-130		10/04/2013 12:46
4-BFB	110		70-130		10/04/2013 12:46



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; 1630 Park St. Alameda  
**Date Received:** 10/4/13 9:48  
**Date Prepared:** 10/4/13

**WorkOrder:** 1310146  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
N Wall2-10'	1310146-001A	Soil	10/04/2013 07:20	GC19	82472
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	890		100	100	10/04/2013 15:24
MTBE	---		5.0	100	10/04/2013 15:24
Benzene	---		0.50	100	10/04/2013 15:24
Toluene	---		0.50	100	10/04/2013 15:24
Ethylbenzene	---		0.50	100	10/04/2013 15:24
Xylenes	---		0.50	100	10/04/2013 15:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
2-fluorotoluene	428	S	70-130		10/04/2013 15:24
NE Wall2-10'	1310146-002A	Soil	10/04/2013 08:00	GC19	82472
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	3300		1000	1000	10/04/2013 13:53
MTBE	---		50	1000	10/04/2013 13:53
Benzene	---		5.0	1000	10/04/2013 13:53
Toluene	---		5.0	1000	10/04/2013 13:53
Ethylbenzene	---		5.0	1000	10/04/2013 13:53
Xylenes	---		5.0	1000	10/04/2013 13:53
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
2-fluorotoluene	90		70-130		10/04/2013 13:53
NE Wall2-6'	1310146-003A	Soil	10/04/2013 08:00	GC7	82472
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/04/2013 18:12
MTBE	---		0.050	1	10/04/2013 18:12
Benzene	---		0.0050	1	10/04/2013 18:12
Toluene	---		0.0050	1	10/04/2013 18:12
Ethylbenzene	---		0.0050	1	10/04/2013 18:12
Xylenes	---		0.0050	1	10/04/2013 18:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	121		70-130		10/04/2013 18:12



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310146  
**Project:** #298931; 1630 Park St. Alameda      **Extraction Method:** SW3550B/3630C  
**Date Received:** 10/4/13 9:48      **Analytical Method:** SW8015B  
**Date Prepared:** 10/4/13      **Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
N Wall2-10'	1310146-001A	Soil	10/04/2013 07:20	GC11A	82479
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	230		10	10	10/05/2013 09:37
TPH-Motor Oil (C18-C36)	88		50	10	10/05/2013 09:37
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	115		70-130		10/05/2013 09:37
NE Wall2-10'	1310146-002A	Soil	10/04/2013 08:00	GC11A	82479
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2500		10	10	10/05/2013 06:11
TPH-Motor Oil (C18-C36)	2200		50	10	10/05/2013 06:11
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	119		70-130		10/05/2013 06:11
NE Wall2-6'	1310146-003A	Soil	10/04/2013 08:00	GC11A	82479
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	2300		200	200	10/07/2013 12:25
TPH-Motor Oil (C18-C36)	8500		1000	200	10/07/2013 12:25
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e7,e2	
C9	88		70-130		10/07/2013 12:25



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/3/13  
**Date Analyzed:** 10/4/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; 1630 Park St. Alameda

**WorkOrder:** 1310146  
**BatchID:** 82464  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82464

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.046	0.0050	0.050	-	92	70-130
Benzene	ND	0.04478	0.0050	0.050	-	89.6	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2204	0.050	0.20	-	110	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04431	0.0050	0.050	-	88.6	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04578	0.0040	0.050	-	91.6	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04416	0.0040	0.050	-	88.3	70-130
1,1-Dichloroethene	ND	0.03695	0.0050	0.050	-	73.9	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropene	ND	-	0.0050	-	-	-	-
1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
2,2-Dichloropropene	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants

**WorkOrder:** 1310146

**Date Prepared:** 10/3/13

**BatchID:** 82464

**Date Analyzed:** 10/4/13

**Extraction Method:** SW5030B

**Instrument:** GC16

**Analytical Method:** SW8260B

**Matrix:** Soil

**Unit:** mg/Kg

**Project:** #298931; 1630 Park St. Alameda

**Sample ID:** MB/LCS-82464

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.05017	0.0050	0.050	-	100	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04686	0.0050	0.050	-	93.7	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04869	0.0050	0.050	-	97.4	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0465	0.0050	0.050	-	93	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.03893	0.0050	0.050	-	77.9	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
bromofluoromethane	0.1186	0.1216		0.12	95	97	70-130
toluene-d8	0.1283	0.1274		0.12	103	102	70-130
4-BFB	0.01282	0.01205		0.012	103	96	70-130

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QA/QC Officer

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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/4/13  
**Date Analyzed:** 10/7/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; 1630 Park St. Alameda

**WorkOrder:** 1310146  
**BatchID:** 82495  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82495

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04315	0.0050	0.050	-	86.3	70-130
Benzene	ND	0.04088	0.0050	0.050	-	81.8	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2002	0.050	0.20	-	100	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04425	0.0050	0.050	-	88.5	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04429	0.0040	0.050	-	88.6	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04405	0.0040	0.050	-	88.1	70-130
1,1-Dichloroethene	ND	0.03447	0.0050	0.050	-	68.9, F2	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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 QA/QC Officer



## Quality Control Report

**Client:** AEI Consultants

**WorkOrder:** 1310146

**Date Prepared:** 10/4/13

**BatchID:** 82495

**Date Analyzed:** 10/7/13

**Extraction Method:** SW5030B

**Instrument:** GC16

**Analytical Method:** SW8260B

**Matrix:** Soil

**Unit:** mg/Kg

**Project:** #298931; 1630 Park St. Alameda

**Sample ID:** MB/LCS-82495

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.04539	0.0050	0.050	-	90.8	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04354	0.0050	0.050	-	87.1	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04578	0.0050	0.050	-	91.6	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.04475	0.0050	0.050	-	89.5	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.03831	0.0050	0.050	-	76.6	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

#### Surrogate Recovery

dibromofluoromethane	0.1209	0.1224	0.12	97	98	70-130
toluene-d8	0.1311	0.1322	0.12	105	106	70-130
4-BFB	0.01306	0.01201	0.012	104	96	70-130



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310146
<b>Date Prepared:</b>	10/3/13	<b>BatchID:</b>	82472
<b>Date Analyzed:</b>	10/4/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC7	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; 1630 Park St. Alameda	<b>Sample ID:</b>	MB/LCS-82472 1310146-002AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.5955	0.40	0.60	-	99.2	70-130
MTBE	ND	0.09306	0.050	0.10	-	93.1	70-130
Benzene	ND	0.112	0.0050	0.10	-	112	70-130
Toluene	ND	0.1066	0.0050	0.10	-	107	70-130
Ethylbenzene	ND	0.1202	0.0050	0.10	-	120	70-130
Xylenes	ND	0.378	0.0050	0.30	-	126	70-130

**Surrogate Recovery**

2-fluorotoluene	0.1198	0.1263	0.10	120	126	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR	0	1000	NR	NR	-	NR	
MTBE	NR	NR	0	ND<50	NR	NR	-	NR	
Benzene	NR	NR	0	17	NR	NR	-	NR	
Toluene	NR	NR	0	240	NR	NR	-	NR	
Ethylbenzene	NR	NR	0	89	NR	NR	-	NR	
Xylenes	NR	NR	0	440	NR	NR	-	NR	

**Surrogate Recovery**

2-fluorotoluene	NR	NR	0	NR	NR	-	NR
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## Quality Control Report

**Client:** AEI Consultants      **WorkOrder:** 1310146  
**Date Prepared:** 10/4/13      **BatchID:** 82479  
**Date Analyzed:** 10/4/13      **Extraction Method:** SW3550B/3630C  
**Instrument:** GC11A      **Analytical Method:** SW8015B  
**Matrix:** Soil      **Unit:** mg/Kg  
**Project:** #298931; 1630 Park St. Alameda      **Sample ID:** MB/LCS-82479  
1310146-003AMS/MSD

### QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	41	1.0	40	-	103	70-130		
<b>Surrogate Recovery</b>									
C9	26.27	22.87		25	105	91	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR	0	2300	NR	NR	-	NR	
<b>Surrogate Recovery</b>								NR	
C9	NR	NR	0		NR	NR	-	NR	



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1310146

ClientCode: AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Andrew Wallace  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: awallace@aeiconsultants.com  
cc:  
PO: #WC084378  
ProjectNo: #298931; 1630 Park St. Alameda

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

Requested TAT: 1 day

Date Received: 10/04/2013

Date Printed: 10/04/2013

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
1310146-001	N Wall2-10'	Soil	10/4/2013 7:20	<input type="checkbox"/>	A	A	A									
1310146-002	NE Wall2-10'	Soil	10/4/2013 8:00	<input type="checkbox"/>	A		A									
1310146-003	NE Wall2-6'	Soil	10/4/2013 8:00	<input type="checkbox"/>	A		A									

Test Legend:

1	8260B_S
6	
11	

2	PREF REPORT
7	
12	

3	TPH(DMO)WSG_S
8	

4	
9	

5	
10	

The following SamplIDs: 001A, 002A, 003A contain testgroup.

Prepared by: Maria Venegas

Comments: 24hr Rush

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.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD  
PITTSBURG, CA 94565-1701

**Website:** [www.mccampbell.com](http://www.mccampbell.com) **Email:** main@mccampbell.com  
**Telephone:** (877) 252-9262 **Fax:** (925) 252-9269

<b>CHAIN OF CUSTODY/RECORD</b>					
<b>TURN AROUND TIME</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GeoTracker EDF	<input checked="" type="checkbox"/>	PDF	<input type="checkbox"/>	Excel	<input type="checkbox"/>
		RUSH	24 HR	48 HR	72 HR
					5 DAY
<b>RUSH</b>					
<input type="checkbox"/> Check if sample is effluent and "J" flag is required					

Analysis Request	Other	Comments
------------------	-------	----------

Report To: Andrew Wallace Bill To: AEI Consultant

**Company:** AEI Consultants

**2500 Camino Diablo #200, Walnut Creek 94597**

E-Mail: awallace@aeiconsultants.com

Tele: (925) 746-6000 x105

Fax: ( 925 ) 746-6099

Project #: 19893

Project Name: PO#WC084378

Project Location: 1630 Park st, Alameda

**Sampler Signature:** 

Relinquished By:

Remained by  
Andrew Wallace

Date:

10/4/13 9:

Received

*Hanna W.*

ICE/1° 8.2  
GOOD CONDITION  
HEAD SPACE ABSENT  
DECHLORINATED IN LAB  
APPROPRIATE CONTAINERS  
PRESERVED IN LAB

**COMMENTS:**

VOAS O&G METALS OTHER  
PRESERVATION pH<2



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/4/2013 9:48:55 AM**

Project Name: **#298931; 1630 Park St. Alameda**

Login Reviewed by:

Maria Venegas

WorkOrder N°: **1310146**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 8.2°C                      |                             | NA <input type="checkbox"/>                                |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                     |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCormick Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310373

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084379

**Project Name:** #298931; FSI

**Project Received:** 10/10/2013

Analytical Report reviewed & approved for release on 10/11/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCormick](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccormick.com](http://www.mccormick.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310373

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d2	heavier gasoline range compounds are significant (aged gasoline?)
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EBE-12'	1310373-001A	Soil	10/10/2013 11:10	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/11/2013 01:46
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/11/2013 01:46
Benzene	ND		0.0050	1	10/11/2013 01:46
Bromobenzene	ND		0.0050	1	10/11/2013 01:46
Bromoform	ND		0.0050	1	10/11/2013 01:46
Bromochloromethane	ND		0.0050	1	10/11/2013 01:46
Bromodichloromethane	ND		0.0050	1	10/11/2013 01:46
Bromomethane	ND		0.0050	1	10/11/2013 01:46
2-Butanone (MEK)	ND		0.020	1	10/11/2013 01:46
t-Butyl alcohol (TBA)	ND		0.050	1	10/11/2013 01:46
n-Butyl benzene	ND		0.0050	1	10/11/2013 01:46
sec-Butyl benzene	ND		0.0050	1	10/11/2013 01:46
tert-Butyl benzene	ND		0.0050	1	10/11/2013 01:46
Carbon Disulfide	ND		0.0050	1	10/11/2013 01:46
Carbon Tetrachloride	ND		0.0050	1	10/11/2013 01:46
Chlorobenzene	ND		0.0050	1	10/11/2013 01:46
Chloroethane	ND		0.0050	1	10/11/2013 01:46
Chloroform	ND		0.0050	1	10/11/2013 01:46
Chloromethane	ND		0.0050	1	10/11/2013 01:46
2-Chlorotoluene	ND		0.0050	1	10/11/2013 01:46
4-Chlorotoluene	ND		0.0050	1	10/11/2013 01:46
Dibromochloromethane	ND		0.0050	1	10/11/2013 01:46
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/11/2013 01:46
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/11/2013 01:46
Dibromomethane	ND		0.0050	1	10/11/2013 01:46
1,2-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:46
1,3-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:46
1,4-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:46
Dichlorodifluoromethane	ND		0.0050	1	10/11/2013 01:46
1,1-Dichloroethane	ND		0.0050	1	10/11/2013 01:46
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/11/2013 01:46
1,1-Dichloroethene	ND		0.0050	1	10/11/2013 01:46
cis-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 01:46
trans-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 01:46
1,2-Dichloropropane	ND		0.0050	1	10/11/2013 01:46
1,3-Dichloropropane	ND		0.0050	1	10/11/2013 01:46
2,2-Dichloropropane	ND		0.0050	1	10/11/2013 01:46
1,1-Dichloropropene	ND		0.0050	1	10/11/2013 01:46

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
EBE-12'	1310373-001A	Soil	10/10/2013 11:10	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 01:46
trans-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 01:46
Diisopropyl ether (DIPE)	ND		0.0050	1	10/11/2013 01:46
Ethylbenzene	ND		0.0050	1	10/11/2013 01:46
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/11/2013 01:46
Freon 113	ND		0.10	1	10/11/2013 01:46
Hexachlorobutadiene	ND		0.0050	1	10/11/2013 01:46
Hexachloroethane	ND		0.0050	1	10/11/2013 01:46
2-Hexanone	ND		0.0050	1	10/11/2013 01:46
Isopropylbenzene	ND		0.0050	1	10/11/2013 01:46
4-Isopropyl toluene	ND		0.0050	1	10/11/2013 01:46
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/11/2013 01:46
Methylene chloride	ND		0.0050	1	10/11/2013 01:46
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/11/2013 01:46
Naphthalene	ND		0.0050	1	10/11/2013 01:46
n-Propyl benzene	ND		0.0050	1	10/11/2013 01:46
Styrene	ND		0.0050	1	10/11/2013 01:46
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 01:46
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 01:46
Tetrachloroethene	ND		0.0050	1	10/11/2013 01:46
Toluene	<b>0.0065</b>		0.0050	1	10/11/2013 01:46
1,2,3-Trichlorobenzene	ND		0.0050	1	10/11/2013 01:46
1,2,4-Trichlorobenzene	ND		0.0050	1	10/11/2013 01:46
1,1,1-Trichloroethane	ND		0.0050	1	10/11/2013 01:46
1,1,2-Trichloroethane	ND		0.0050	1	10/11/2013 01:46
Trichloroethene	ND		0.0050	1	10/11/2013 01:46
Trichlorofluoromethane	ND		0.0050	1	10/11/2013 01:46
1,2,3-Trichloropropane	ND		0.0050	1	10/11/2013 01:46
1,2,4-Trimethylbenzene	<b>0.0096</b>		0.0050	1	10/11/2013 01:46
1,3,5-Trimethylbenzene	ND		0.0050	1	10/11/2013 01:46
Vinyl Chloride	ND		0.0050	1	10/11/2013 01:46
Xylenes, Total	<b>0.018</b>		0.0050	1	10/11/2013 01:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	92		70-130		10/11/2013 01:46
Toluene-d8	97		70-130		10/11/2013 01:46
4-BFB	97		70-130		10/11/2013 01:46

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-10*	1310373-002A	Soil	10/10/2013 11:25	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		50	500	10/11/2013 14:33
tert-Amyl methyl ether (TAME)	ND		2.5	500	10/11/2013 14:33
Benzene	ND		2.5	500	10/11/2013 14:33
Bromobenzene	ND		2.5	500	10/11/2013 14:33
Bromoform	ND		2.5	500	10/11/2013 14:33
Bromochloromethane	ND		2.5	500	10/11/2013 14:33
Bromodichloromethane	ND		2.5	500	10/11/2013 14:33
Bromomethane	ND		2.5	500	10/11/2013 14:33
2-Butanone (MEK)	ND		10	500	10/11/2013 14:33
t-Butyl alcohol (TBA)	ND		25	500	10/11/2013 14:33
n-Butyl benzene	17		2.5	500	10/11/2013 14:33
sec-Butyl benzene	2.7		2.5	500	10/11/2013 14:33
tert-Butyl benzene	ND		2.5	500	10/11/2013 14:33
Carbon Disulfide	ND		2.5	500	10/11/2013 14:33
Carbon Tetrachloride	ND		2.5	500	10/11/2013 14:33
Chlorobenzene	ND		2.5	500	10/11/2013 14:33
Chloroethane	ND		2.5	500	10/11/2013 14:33
Chloroform	ND		2.5	500	10/11/2013 14:33
Chloromethane	ND		2.5	500	10/11/2013 14:33
2-Chlorotoluene	ND		2.5	500	10/11/2013 14:33
4-Chlorotoluene	ND		2.5	500	10/11/2013 14:33
Dibromochloromethane	ND		2.5	500	10/11/2013 14:33
1,2-Dibromo-3-chloropropane	ND		2.0	500	10/11/2013 14:33
1,2-Dibromoethane (EDB)	ND		2.0	500	10/11/2013 14:33
Dibromomethane	ND		2.5	500	10/11/2013 14:33
1,2-Dichlorobenzene	ND		2.5	500	10/11/2013 14:33
1,3-Dichlorobenzene	ND		2.5	500	10/11/2013 14:33
1,4-Dichlorobenzene	ND		2.5	500	10/11/2013 14:33
Dichlorodifluoromethane	ND		2.5	500	10/11/2013 14:33
1,1-Dichloroethane	ND		2.5	500	10/11/2013 14:33
1,2-Dichloroethane (1,2-DCA)	ND		2.0	500	10/11/2013 14:33
1,1-Dichloroethene	ND		2.5	500	10/11/2013 14:33
cis-1,2-Dichloroethene	ND		2.5	500	10/11/2013 14:33
trans-1,2-Dichloroethene	ND		2.5	500	10/11/2013 14:33
1,2-Dichloropropane	ND		2.5	500	10/11/2013 14:33
1,3-Dichloropropane	ND		2.5	500	10/11/2013 14:33
2,2-Dichloropropane	ND		2.5	500	10/11/2013 14:33
1,1-Dichloropropene	ND		2.5	500	10/11/2013 14:33

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-10*	1310373-002A	Soil	10/10/2013 11:25	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		2.5	500	10/11/2013 14:33
trans-1,3-Dichloropropene	ND		2.5	500	10/11/2013 14:33
Diisopropyl ether (DIPE)	ND		2.5	500	10/11/2013 14:33
Ethylbenzene	16		2.5	500	10/11/2013 14:33
Ethyl tert-butyl ether (ETBE)	ND		2.5	500	10/11/2013 14:33
Freon 113	ND		50	500	10/11/2013 14:33
Hexachlorobutadiene	ND		2.5	500	10/11/2013 14:33
Hexachloroethane	ND		2.5	500	10/11/2013 14:33
2-Hexanone	ND		2.5	500	10/11/2013 14:33
Isopropylbenzene	2.9		2.5	500	10/11/2013 14:33
4-Isopropyl toluene	4.8		2.5	500	10/11/2013 14:33
Methyl-t-butyl ether (MTBE)	ND		2.5	500	10/11/2013 14:33
Methylene chloride	ND		2.5	500	10/11/2013 14:33
4-Methyl-2-pentanone (MIBK)	ND		2.5	500	10/11/2013 14:33
Naphthalene	22		2.5	500	10/11/2013 14:33
n-Propyl benzene	11		2.5	500	10/11/2013 14:33
Styrene	ND		2.5	500	10/11/2013 14:33
1,1,1,2-Tetrachloroethane	ND		2.5	500	10/11/2013 14:33
1,1,2,2-Tetrachloroethane	ND		2.5	500	10/11/2013 14:33
Tetrachloroethene	ND		2.5	500	10/11/2013 14:33
Toluene	17		2.5	500	10/11/2013 14:33
1,2,3-Trichlorobenzene	ND		2.5	500	10/11/2013 14:33
1,2,4-Trichlorobenzene	ND		2.5	500	10/11/2013 14:33
1,1,1-Trichloroethane	ND		2.5	500	10/11/2013 14:33
1,1,2-Trichloroethane	ND		2.5	500	10/11/2013 14:33
Trichloroethene	ND		2.5	500	10/11/2013 14:33
Trichlorofluoromethane	ND		2.5	500	10/11/2013 14:33
1,2,3-Trichloropropane	ND		2.5	500	10/11/2013 14:33
1,2,4-Trimethylbenzene	91		2.5	500	10/11/2013 14:33
1,3,5-Trimethylbenzene	28		2.5	500	10/11/2013 14:33
Vinyl Chloride	ND		2.5	500	10/11/2013 14:33
Xylenes, Total	100		2.5	500	10/11/2013 14:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	95		70-130		10/11/2013 14:33
Toluene-d8	91		70-130		10/11/2013 14:33
4-BFB	84		70-130		10/11/2013 14:33

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CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-6'	1310373-003A	Soil	10/10/2013 11:30	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/11/2013 03:12
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/11/2013 03:12
Benzene	ND		0.0050	1	10/11/2013 03:12
Bromobenzene	ND		0.0050	1	10/11/2013 03:12
Bromoform	ND		0.0050	1	10/11/2013 03:12
Bromochloromethane	ND		0.0050	1	10/11/2013 03:12
Bromodichloromethane	ND		0.0050	1	10/11/2013 03:12
Bromomethane	ND		0.0050	1	10/11/2013 03:12
2-Butanone (MEK)	ND		0.020	1	10/11/2013 03:12
t-Butyl alcohol (TBA)	ND		0.050	1	10/11/2013 03:12
n-Butyl benzene	ND		0.0050	1	10/11/2013 03:12
sec-Butyl benzene	ND		0.0050	1	10/11/2013 03:12
tert-Butyl benzene	ND		0.0050	1	10/11/2013 03:12
Carbon Disulfide	ND		0.0050	1	10/11/2013 03:12
Carbon Tetrachloride	ND		0.0050	1	10/11/2013 03:12
Chlorobenzene	ND		0.0050	1	10/11/2013 03:12
Chloroethane	ND		0.0050	1	10/11/2013 03:12
Chloroform	ND		0.0050	1	10/11/2013 03:12
Chloromethane	ND		0.0050	1	10/11/2013 03:12
2-Chlorotoluene	ND		0.0050	1	10/11/2013 03:12
4-Chlorotoluene	ND		0.0050	1	10/11/2013 03:12
Dibromochloromethane	ND		0.0050	1	10/11/2013 03:12
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/11/2013 03:12
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/11/2013 03:12
Dibromomethane	ND		0.0050	1	10/11/2013 03:12
1,2-Dichlorobenzene	ND		0.0050	1	10/11/2013 03:12
1,3-Dichlorobenzene	ND		0.0050	1	10/11/2013 03:12
1,4-Dichlorobenzene	ND		0.0050	1	10/11/2013 03:12
Dichlorodifluoromethane	ND		0.0050	1	10/11/2013 03:12
1,1-Dichloroethane	ND		0.0050	1	10/11/2013 03:12
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/11/2013 03:12
1,1-Dichloroethene	ND		0.0050	1	10/11/2013 03:12
cis-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 03:12
trans-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 03:12
1,2-Dichloropropane	ND		0.0050	1	10/11/2013 03:12
1,3-Dichloropropane	ND		0.0050	1	10/11/2013 03:12
2,2-Dichloropropane	ND		0.0050	1	10/11/2013 03:12
1,1-Dichloropropene	ND		0.0050	1	10/11/2013 03:12

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-6'	1310373-003A	Soil	10/10/2013 11:30	GC16	82725
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 03:12
trans-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 03:12
Diisopropyl ether (DIPE)	ND		0.0050	1	10/11/2013 03:12
Ethylbenzene	ND		0.0050	1	10/11/2013 03:12
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/11/2013 03:12
Freon 113	ND		0.10	1	10/11/2013 03:12
Hexachlorobutadiene	ND		0.0050	1	10/11/2013 03:12
Hexachloroethane	ND		0.0050	1	10/11/2013 03:12
2-Hexanone	ND		0.0050	1	10/11/2013 03:12
Isopropylbenzene	ND		0.0050	1	10/11/2013 03:12
4-Isopropyl toluene	ND		0.0050	1	10/11/2013 03:12
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/11/2013 03:12
Methylene chloride	ND		0.0050	1	10/11/2013 03:12
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/11/2013 03:12
Naphthalene	ND		0.0050	1	10/11/2013 13:12
n-Propyl benzene	ND		0.0050	1	10/11/2013 03:12
Styrene	ND		0.0050	1	10/11/2013 03:12
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 03:12
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 03:12
Tetrachloroethene	ND		0.0050	1	10/11/2013 03:12
Toluene	ND		0.0050	1	10/11/2013 03:12
1,2,3-Trichlorobenzene	ND		0.0050	1	10/11/2013 03:12
1,2,4-Trichlorobenzene	ND		0.0050	1	10/11/2013 03:12
1,1,1-Trichloroethane	ND		0.0050	1	10/11/2013 03:12
1,1,2-Trichloroethane	ND		0.0050	1	10/11/2013 03:12
Trichloroethene	ND		0.0050	1	10/11/2013 03:12
Trichlorofluoromethane	ND		0.0050	1	10/11/2013 03:12
1,2,3-Trichloropropane	ND		0.0050	1	10/11/2013 03:12
1,2,4-Trimethylbenzene	ND		0.0050	1	10/11/2013 03:12
1,3,5-Trimethylbenzene	ND		0.0050	1	10/11/2013 03:12
Vinyl Chloride	ND		0.0050	1	10/11/2013 03:12
Xylenes, Total	ND		0.0050	1	10/11/2013 03:12
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	93		70-130		10/11/2013 03:12
Toluene-d8	98		70-130		10/11/2013 03:12
4-BFB	99		70-130		10/11/2013 03:12

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CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-e-10*</b>	<b>1310373-005A</b>	<b>Soil</b>	<b>10/10/2013 11:45</b>	<b>GC16</b>	<b>82725</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		20	200	10/11/2013 03:54
tert-Amyl methyl ether (TAME)	ND		1.0	200	10/11/2013 03:54
Benzene	ND		1.0	200	10/11/2013 03:54
Bromobenzene	ND		1.0	200	10/11/2013 03:54
Bromoform	ND		1.0	200	10/11/2013 03:54
Bromochloromethane	ND		1.0	200	10/11/2013 03:54
Bromodichloromethane	ND		1.0	200	10/11/2013 03:54
Bromomethane	ND		1.0	200	10/11/2013 03:54
2-Butanone (MEK)	ND		4.0	200	10/11/2013 03:54
t-Butyl alcohol (TBA)	ND		10	200	10/11/2013 03:54
n-Butyl benzene	<b>7.2</b>		1.0	200	10/11/2013 03:54
sec-Butyl benzene	<b>1.1</b>		1.0	200	10/11/2013 03:54
tert-Butyl benzene	ND		1.0	200	10/11/2013 03:54
Carbon Disulfide	ND		1.0	200	10/11/2013 03:54
Carbon Tetrachloride	ND		1.0	200	10/11/2013 03:54
Chlorobenzene	ND		1.0	200	10/11/2013 03:54
Chloroethane	ND		1.0	200	10/11/2013 03:54
Chloroform	ND		1.0	200	10/11/2013 03:54
Chloromethane	ND		1.0	200	10/11/2013 03:54
2-Chlorotoluene	ND		1.0	200	10/11/2013 03:54
4-Chlorotoluene	ND		1.0	200	10/11/2013 03:54
Dibromochloromethane	ND		1.0	200	10/11/2013 03:54
1,2-Dibromo-3-chloropropane	ND		0.80	200	10/11/2013 03:54
1,2-Dibromoethane (EDB)	ND		0.80	200	10/11/2013 03:54
Dibromomethane	ND		1.0	200	10/11/2013 03:54
1,2-Dichlorobenzene	ND		1.0	200	10/11/2013 03:54
1,3-Dichlorobenzene	ND		1.0	200	10/11/2013 03:54
1,4-Dichlorobenzene	ND		1.0	200	10/11/2013 03:54
Dichlorodifluoromethane	ND		1.0	200	10/11/2013 03:54
1,1-Dichloroethane	ND		1.0	200	10/11/2013 03:54
1,2-Dichloroethane (1,2-DCA)	ND		0.80	200	10/11/2013 03:54
1,1-Dichloroethene	ND		1.0	200	10/11/2013 03:54
cis-1,2-Dichloroethene	ND		1.0	200	10/11/2013 03:54
trans-1,2-Dichloroethene	ND		1.0	200	10/11/2013 03:54
1,2-Dichloropropane	ND		1.0	200	10/11/2013 03:54
1,3-Dichloropropane	ND		1.0	200	10/11/2013 03:54
2,2-Dichloropropane	ND		1.0	200	10/11/2013 03:54
1,1-Dichloropropene	ND		1.0	200	10/11/2013 03:54

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-e-10*</b>	<b>1310373-005A</b>	<b>Soil</b>	<b>10/10/2013 11:45</b>	<b>GC16</b>	<b>82725</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		1.0	200	10/11/2013 03:54
trans-1,3-Dichloropropene	ND		1.0	200	10/11/2013 03:54
Diisopropyl ether (DIPE)	ND		1.0	200	10/11/2013 03:54
Ethylbenzene	<b>3.6</b>		1.0	200	10/11/2013 03:54
Ethyl tert-butyl ether (ETBE)	ND		1.0	200	10/11/2013 03:54
Freon 113	ND		20	200	10/11/2013 03:54
Hexachlorobutadiene	ND		1.0	200	10/11/2013 03:54
Hexachloroethane	ND		1.0	200	10/11/2013 03:54
2-Hexanone	ND		1.0	200	10/11/2013 03:54
Isopropylbenzene	ND		1.0	200	10/11/2013 03:54
4-Isopropyl toluene	ND		1.0	200	10/11/2013 03:54
Methyl-t-butyl ether (MTBE)	ND		1.0	200	10/11/2013 03:54
Methylene chloride	ND		1.0	200	10/11/2013 03:54
4-Methyl-2-pentanone (MIBK)	ND		1.0	200	10/11/2013 03:54
Naphthalene	<b>9.7</b>		1.0	200	10/11/2013 03:54
n-Propyl benzene	<b>3.0</b>		1.0	200	10/11/2013 03:54
Styrene	ND		1.0	200	10/11/2013 03:54
1,1,1,2-Tetrachloroethane	ND		1.0	200	10/11/2013 03:54
1,1,2,2-Tetrachloroethane	ND		1.0	200	10/11/2013 03:54
Tetrachloroethene	ND		1.0	200	10/11/2013 03:54
Toluene	ND		1.0	200	10/11/2013 03:54
1,2,3-Trichlorobenzene	ND		1.0	200	10/11/2013 03:54
1,2,4-Trichlorobenzene	ND		1.0	200	10/11/2013 03:54
1,1,1-Trichloroethane	ND		1.0	200	10/11/2013 03:54
1,1,2-Trichloroethane	ND		1.0	200	10/11/2013 03:54
Trichloroethene	ND		1.0	200	10/11/2013 03:54
Trichlorofluoromethane	ND		1.0	200	10/11/2013 03:54
1,2,3-Trichloropropane	ND		1.0	200	10/11/2013 03:54
1,2,4-Trimethylbenzene	<b>38</b>		1.0	200	10/11/2013 03:54
1,3,5-Trimethylbenzene	<b>13</b>		1.0	200	10/11/2013 03:54
Vinyl Chloride	ND		1.0	200	10/11/2013 03:54
Xylenes, Total	<b>34</b>		1.0	200	10/11/2013 03:54
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	95		70-130		10/11/2013 03:54
Toluene-d8	92		70-130		10/11/2013 03:54
4-BFB	85		70-130		10/11/2013 03:54

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-e-6'</b>	<b>1310373-006A</b>	<b>Soil</b>	<b>10/10/2013 12:00</b>	<b>GC16</b>	<b>82725</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/11/2013 01:03
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/11/2013 01:03
Benzene	ND		0.0050	1	10/11/2013 01:03
Bromobenzene	ND		0.0050	1	10/11/2013 01:03
Bromoform	ND		0.0050	1	10/11/2013 01:03
Bromochloromethane	ND		0.0050	1	10/11/2013 01:03
Bromodichloromethane	ND		0.0050	1	10/11/2013 01:03
Bromomethane	ND		0.0050	1	10/11/2013 01:03
2-Butanone (MEK)	ND		0.020	1	10/11/2013 01:03
t-Butyl alcohol (TBA)	ND		0.050	1	10/11/2013 01:03
n-Butyl benzene	ND		0.0050	1	10/11/2013 01:03
sec-Butyl benzene	ND		0.0050	1	10/11/2013 01:03
tert-Butyl benzene	ND		0.0050	1	10/11/2013 01:03
Carbon Disulfide	ND		0.0050	1	10/11/2013 01:03
Carbon Tetrachloride	ND		0.0050	1	10/11/2013 01:03
Chlorobenzene	ND		0.0050	1	10/11/2013 01:03
Chloroethane	ND		0.0050	1	10/11/2013 01:03
Chloroform	ND		0.0050	1	10/11/2013 01:03
Chloromethane	ND		0.0050	1	10/11/2013 01:03
2-Chlorotoluene	ND		0.0050	1	10/11/2013 01:03
4-Chlorotoluene	ND		0.0050	1	10/11/2013 01:03
Dibromochloromethane	ND		0.0050	1	10/11/2013 01:03
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/11/2013 01:03
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/11/2013 01:03
Dibromomethane	ND		0.0050	1	10/11/2013 01:03
1,2-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:03
1,3-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:03
1,4-Dichlorobenzene	ND		0.0050	1	10/11/2013 01:03
Dichlorodifluoromethane	ND		0.0050	1	10/11/2013 01:03
1,1-Dichloroethane	ND		0.0050	1	10/11/2013 01:03
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/11/2013 01:03
1,1-Dichloroethene	ND		0.0050	1	10/11/2013 01:03
cis-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 01:03
trans-1,2-Dichloroethene	ND		0.0050	1	10/11/2013 01:03
1,2-Dichloropropane	ND		0.0050	1	10/11/2013 01:03
1,3-Dichloropropane	ND		0.0050	1	10/11/2013 01:03
2,2-Dichloropropane	ND		0.0050	1	10/11/2013 01:03
1,1-Dichloropropene	ND		0.0050	1	10/11/2013 01:03

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-e-6'</b>	<b>1310373-006A</b>	<b>Soil</b>	<b>10/10/2013 12:00</b>	<b>GC16</b>	<b>82725</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 01:03
trans-1,3-Dichloropropene	ND		0.0050	1	10/11/2013 01:03
Diisopropyl ether (DIPE)	ND		0.0050	1	10/11/2013 01:03
Ethylbenzene	ND		0.0050	1	10/11/2013 01:03
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/11/2013 01:03
Freon 113	ND		0.10	1	10/11/2013 01:03
Hexachlorobutadiene	ND		0.0050	1	10/11/2013 01:03
Hexachloroethane	ND		0.0050	1	10/11/2013 01:03
2-Hexanone	ND		0.0050	1	10/11/2013 01:03
Isopropylbenzene	ND		0.0050	1	10/11/2013 01:03
4-Isopropyl toluene	ND		0.0050	1	10/11/2013 01:03
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/11/2013 01:03
Methylene chloride	ND		0.0050	1	10/11/2013 01:03
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/11/2013 01:03
Naphthalene	ND		0.0050	1	10/11/2013 01:03
n-Propyl benzene	ND		0.0050	1	10/11/2013 01:03
Styrene	ND		0.0050	1	10/11/2013 01:03
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 01:03
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/11/2013 01:03
Tetrachloroethene	ND		0.0050	1	10/11/2013 01:03
Toluene	ND		0.0050	1	10/11/2013 01:03
1,2,3-Trichlorobenzene	ND		0.0050	1	10/11/2013 01:03
1,2,4-Trichlorobenzene	ND		0.0050	1	10/11/2013 01:03
1,1,1-Trichloroethane	ND		0.0050	1	10/11/2013 01:03
1,1,2-Trichloroethane	ND		0.0050	1	10/11/2013 01:03
Trichloroethene	ND		0.0050	1	10/11/2013 01:03
Trichlorofluoromethane	ND		0.0050	1	10/11/2013 01:03
1,2,3-Trichloropropane	ND		0.0050	1	10/11/2013 01:03
1,2,4-Trimethylbenzene	ND		0.0050	1	10/11/2013 01:03
1,3,5-Trimethylbenzene	ND		0.0050	1	10/11/2013 01:03
Vinyl Chloride	ND		0.0050	1	10/11/2013 01:03
Xylenes, Total	ND		0.0050	1	10/11/2013 01:03
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	93		70-130		10/11/2013 01:03
Toluene-d8	98		70-130		10/11/2013 01:03
4-BFB	98		70-130		10/11/2013 01:03



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310373  
**Project:** #298931; FSI      **Extraction Method:** SW5030B  
**Date Received:** 10/10/13 13:51      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 10/10/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>EBE-12'</b>	<b>1310373-001A</b>	<b>Soil</b>	<b>10/10/2013 11:10</b>	<b>GC7</b>	<b>82721</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/11/2013 03:05
MTBE	ND		0.050	1	10/11/2013 03:05
Benzene	ND		0.0050	1	10/11/2013 03:05
Toluene	ND		0.0050	1	10/11/2013 03:05
Ethylbenzene	ND		0.0050	1	10/11/2013 03:05
Xylenes	ND		0.0050	1	10/11/2013 03:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	108		70-130		10/11/2013 03:05
<b>SWS-e-10'</b>	<b>1310373-002A</b>	<b>Soil</b>	<b>10/10/2013 11:25</b>	<b>GC7</b>	<b>82721</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	1500		200	200	10/11/2013 04:04
MTBE	ND		10	200	10/11/2013 04:04
Benzene	1.5		1.0	200	10/11/2013 04:04
Toluene	38		1.0	200	10/11/2013 04:04
Ethylbenzene	33		1.0	200	10/11/2013 04:04
Xylenes	230		1.0	200	10/11/2013 04:04
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d2	
2-Fluorotoluene	127		70-130		10/11/2013 04:04
<b>SWS-e-6'</b>	<b>1310373-003A</b>	<b>Soil</b>	<b>10/10/2013 11:30</b>	<b>GC7</b>	<b>82721</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/11/2013 13:01
MTBE	ND		0.050	1	10/11/2013 13:01
Benzene	ND		0.0050	1	10/11/2013 13:01
Toluene	ND		0.0050	1	10/11/2013 13:01
Ethylbenzene	ND		0.0050	1	10/11/2013 13:01
Xylenes	ND		0.0050	1	10/11/2013 13:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	107		70-130		10/11/2013 13:01

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310373  
**Project:** #298931; FSI      **Extraction Method:** SW5030B  
**Date Received:** 10/10/13 13:51      **Analytical Method:** SW8021B/8015Bm  
**Date Prepared:** 10/10/13      **Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>SWN-e-10'</b>	<b>1310373-005A</b>	<b>Soil</b>	<b>10/10/2013 11:45</b>	<b>GC7</b>	<b>82721</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	770		200	200	10/11/2013 05:33
MTBE	ND		10	200	10/11/2013 05:33
Benzene	ND		1.0	200	10/11/2013 05:33
Toluene	1.1		1.0	200	10/11/2013 05:33
Ethylbenzene	5.9		1.0	200	10/11/2013 05:33
Xylenes	70		1.0	200	10/11/2013 05:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d2	
aaa-TFT	97		70-130		10/11/2013 05:33
<b>SWN-e-6'</b>	<b>1310373-006A</b>	<b>Soil</b>	<b>10/10/2013 12:00</b>	<b>GC7</b>	<b>82721</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/11/2013 15:14
MTBE	ND		0.050	1	10/11/2013 15:14
Benzene	ND		0.0050	1	10/11/2013 15:14
Toluene	ND		0.0050	1	10/11/2013 15:14
Ethylbenzene	ND		0.0050	1	10/11/2013 15:14
Xylenes	ND		0.0050	1	10/11/2013 15:14
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	101		70-130		10/11/2013 15:14



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/10/13

**WorkOrder:** 1310373  
**Extraction Method:** SW3550B/3630C  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>EBE-12'</b>	<b>1310373-001A</b>	<b>Soil</b>	<b>10/10/2013 11:10</b>	<b>GC9b</b>	<b>82743</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/11/2013 12:17
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/11/2013 12:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		10/11/2013 12:17
<b>SWS-e-10'</b>	<b>1310373-002A</b>	<b>Soil</b>	<b>10/10/2013 11:25</b>	<b>GC9a</b>	<b>82743</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	880		20	20	10/11/2013 14:08
TPH-Motor Oil (C18-C36)	470		100	20	10/11/2013 14:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	116		70-130		10/11/2013 14:08
<b>SWS-e-6'</b>	<b>1310373-003A</b>	<b>Soil</b>	<b>10/10/2013 11:30</b>	<b>GC9b</b>	<b>82743</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	1.2		1.0	1	10/11/2013 10:03
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/11/2013 10:03
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e2	
C9	101		70-130		10/11/2013 10:03
<b>SWN-e-10'</b>	<b>1310373-005A</b>	<b>Soil</b>	<b>10/10/2013 11:45</b>	<b>GC11A</b>	<b>82743</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	310		1.0	1	10/11/2013 15:05
TPH-Motor Oil (C18-C36)	160		5.0	1	10/11/2013 15:05
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	120		70-130		10/11/2013 15:05

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310373

**Project:** #298931; FSI

**Extraction Method** SW3550B/3630C

**Date Received:** 10/10/13 13:51

**Analytical Method:** SW8015B

**Date Prepared:** 10/10/13

**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWN-e-6'	1310373-006A	Soil	10/10/2013 12:00	GC9b	82743
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/11/2013 11:09
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/11/2013 11:09
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	102		70-130		10/11/2013 11:09



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/9/13  
**Date Analyzed:** 10/10/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310373  
**BatchID:** 82725  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82725  
 1310373-006AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04658	0.0050	0.050	-	93.2	70-130
Benzene	ND	0.04706	0.0050	0.050	-	94.1	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2141	0.050	0.20	-	107	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04691	0.0050	0.050	-	93.8	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.04638	0.0040	0.050	-	92.8	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.04801	0.0040	0.050	-	96	70-130
1,1-Dichloroethene	ND	0.04683	0.0050	0.050	-	93.7	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/9/13  
**Date Analyzed:** 10/10/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310373  
**BatchID:** 82725  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82725  
1310373-006AMS/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	0.04812	0.0050	0.050	-	96.2	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04622	0.0050	0.050	-	92.4	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.04839	0.0050	0.050	-	96.8	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05146	0.0050	0.050	-	103	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.04589	0.0050	0.050	-	91.8	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.1138	0.1163		0.12	91	93	70-130
Toluene-d8	0.1236	0.1232		0.12	99	99	70-130
4-BFB	0.01206	0.01168		0.012	96	93	70-130

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## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310373
<b>Date Prepared:</b>	10/9/13	<b>BatchID:</b>	82725
<b>Date Analyzed:</b>	10/10/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC16	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82725 1310373-006AMS/MSD

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### 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)	0.04455	0.04418	0.050	ND	89.1	88.4	56-94	0.845	30
Benzene	0.04494	0.04408	0.050	ND	89.9	88.2	60-106	1.91	30
t-Butyl alcohol (TBA)	0.2005	0.1977	0.20	ND	100	98.8	56-140	1.42	30
Chlorobenzene	0.04545	0.04436	0.050	ND	90.9	88.7	61-108	2.43	30
1,2-Dibromoethane (EDB)	0.0458	0.04484	0.050	ND	91.6	89.7	54-119	2.10	30
1,2-Dichloroethane (1,2-DCA)	0.04454	0.04407	0.050	ND	89.1	88.1	48-115	1.06	30
1,1-Dichloroethene	0.04453	0.04402	0.050	ND	89.1	88	46-111	1.15	30
Diisopropyl ether (DIPE)	0.0458	0.0455	0.050	ND	91.6	91	53-111	0.647	30
Ethyl tert-butyl ether (ETBE)	0.0442	0.04375	0.050	ND	88.4	87.5	61-104	1.04	30
Methyl-t-butyl ether (MTBE)	0.04594	0.04595	0.050	ND	91.9	91.9	58-107	0	30
Toluene	0.04896	0.04846	0.050	ND	97.9	96.9	64-114	1.01	30
Trichloroethylene	0.04289	0.04224	0.050	ND	85.8	84.5	60-116	1.54	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1156	0.1162	0.12		92	93	70-130	0.554	30
Toluene-d8	0.1238	0.123	0.12		99	98	70-130	0.614	30
4-BFB	0.01164	0.01154	0.012		93	92	70-130	0.820	30

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## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310373
<b>Date Prepared:</b>	10/9/13	<b>BatchID:</b>	82721
<b>Date Analyzed:</b>	10/10/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC19	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82721 1310345-035AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.6272	0.40	0.60	-	105	70-130
MTBE	ND	0.08552	0.050	0.10	-	85.5	70-130
Benzene	ND	0.1118	0.0050	0.10	-	112	70-130
Toluene	ND	0.1151	0.0050	0.10	-	115	70-130
Ethylbenzene	ND	0.1133	0.0050	0.10	-	113	70-130
Xylenes	ND	0.3576	0.0050	0.30	-	119	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.112	0.1099		0.10	112	110	70-130
-----------------	-------	--------	--	------	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.5413	0.5722	0.60	ND	90.2	95.4	70-130	5.55	20
MTBE	0.07465	0.07326	0.10	ND	74.7	73.3	70-130	1.88	20
Benzene	0.1001	0.09769	0.10	ND	100	97.7	70-130	2.48	20
Toluene	0.1035	0.1033	0.10	ND	104	103	70-130	0.231	20
Ethylbenzene	0.1025	0.1011	0.10	ND	103	101	70-130	1.40	20
Xylenes	0.3269	0.3208	0.30	ND	109	107	70-130	1.89	20

**Surrogate Recovery**

2-Fluorotoluene	0.1009	0.09889	0.10		101	99	70-130	1.99	20
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## Quality Control Report

**Client:** AEI Consultants

**WorkOrder:** 1310373

**Date Prepared:** 10/10/13

82743

**Date Analyzed:** 10/11/13

**Extraction Method** SW3550B/3630C

**Instrument:** GC9b

**Analytical Method:** SW8015B

**Matrix:** Soil

**Unit:** mg/Kg

**Project:** #298931; FSI

**Sample ID:** MB/LCS-82743

---

### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	43.68	1.0	40	-	109	70-130
<b>Surrogate Recovery</b>							
C9	22.74	22.5		25	91	90	70-130

---



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1310373

ClientCode: AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 283-6121

Email: jasmith@aeiconsultants.com  
cc:  
PO: #WC084379  
ProjectNo: #298931; FSI

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

Requested TAT: 1 day

Date Received: 10/10/2013

Date Printed: 10/10/2013

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
1310373-001	EBE-12'	Soil	10/10/2013 11:10	<input type="checkbox"/>	A	A	A									
1310373-002	SWS-e-10'	Soil	10/10/2013 11:25	<input type="checkbox"/>	A		A									
1310373-003	SWS-e-6'	Soil	10/10/2013 11:30	<input type="checkbox"/>	A		A									
1310373-005	SWN-e-10'	Soil	10/10/2013 11:45	<input type="checkbox"/>	A		A									
1310373-006	SWN-e-6'	Soil	10/10/2013 12:00	<input type="checkbox"/>	A		A									

Test Legend:

1	8260B_S	2	PREDF REPORT	3	TPH(DMO)WSG_S	4		5
6		7		8		9		10
11		12						

The following SamplIDs: 001A, 002A, 003A, 005A, 006A contain testgroup.

Prepared by: Zoraida Cortez

**Comments:**

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.

# RUSH

1310373

McCAMPBELL ANALYTICAL INC.								CHAIN OF CUSTODY RECORD													
1538 Willow Pass Road, Pittsburg, CA 94565								TURN AROUND TIME													
Telephone: (925) 252-9262				Fax: (925) 252-9269				<input type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>							
Report To: Jeremy Smith Bill To: AEI Consultants								EDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No PDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No													
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597								Analysis Request													
PO# WC0843 79 Global ID: T0600100655								Other													
E-Mail: jasmith@aeiconsultatns.com								Comments													
Telephone: (925) 746-6000, ext. 1128				Fax: (925) 746-6099																	
AEI Project No. 298931				Project Name: FSI																	
Project Location: 1630 Park St., Alameda, CA 94501																					
Sampler Signature: <i>J. Smith</i>																					
SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type	MATRIX		METHOD PRESERVED													
		Date	Time			Water	Soil		Air	Sludge	Other	Ice	HCL	HNO <sub>3</sub>	Other	TPH-G (EPA 8015 M)	TPH-D / TPH-MQ (EPA 8015 M w/ Silica Gel Clean-up)	BTEX, MTBE (EPA 8260B)	<i>Voc: 8260</i>		
EBE-12		10/10/13	11:10	1	STL	X			X			X	X	X			HOLD				
SWS-e-10			11:25									X	X								
SWS-e-6			11:30									X	X								
SWS-e-3			11:35									X	X	X			X				
SWN-e-10			11:45									X	X	X							
SWN-e-6			12:00									X	X	X							
SWN-e-3			12:05														X				
Relinquished By:		Date:	Time:	Received By:		<i>J. Smith</i>								ICE/t° <u>5.2</u> GOOD CONDITION _____ HEAD SPACE ABSENT _____ DECHLORINATED IN LAB _____ PRESERVATION _____ APPROPRIATE CONTAINERS _____ METALS _____ OTHER _____ VOAS _____ O&G _____ PERSERVED IN LAB _____							
Relinquished By:		Date:	Time:	Received By:		<i>J. Smith</i>															
Relinquished By:		Date:	Time:	Received By:																	



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/10/2013 1:51:07 PM**

Project Name: **#298931; FSI**

Login Reviewed by:

Zoraida Cortez

WorkOrder N°: **1310373**

Matrix: Soil

Carrier: Client Drop-In

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 5.2°C                      |                             | NA <input type="checkbox"/>                                |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                     |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310373 A

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084379

**Project Name:** #298931; FSI

**Project Received:** 10/10/2013

Analytical Report reviewed & approved for release on 10/22/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCcampbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310373

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

d1	weakly modified or unmodified gasoline is significant
d2	heavier gasoline range compounds are significant (aged gasoline?)
e2	diesel range compounds are significant; no recognizable pattern
e4	gasoline range compounds are significant.
e7	oil range compounds are significant



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/16/13-10/21/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-3'	1310373-004A	Soil	10/10/2013 11:35	GC16	83118
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	10/22/2013 00:45
tert-Amyl methyl ether (TAME)	ND		0.0050	1	10/22/2013 00:45
Benzene	ND		0.0050	1	10/22/2013 00:45
Bromobenzene	ND		0.0050	1	10/22/2013 00:45
Bromoform	ND		0.0050	1	10/22/2013 00:45
Bromochloromethane	ND		0.0050	1	10/22/2013 00:45
Bromodichloromethane	ND		0.0050	1	10/22/2013 00:45
Bromoform	ND		0.0050	1	10/22/2013 00:45
Bromomethane	ND		0.0050	1	10/22/2013 00:45
2-Butanone (MEK)	ND		0.020	1	10/22/2013 00:45
t-Butyl alcohol (TBA)	ND		0.050	1	10/22/2013 00:45
n-Butyl benzene	ND		0.0050	1	10/22/2013 00:45
sec-Butyl benzene	ND		0.0050	1	10/22/2013 00:45
tert-Butyl benzene	ND		0.0050	1	10/22/2013 00:45
Carbon Disulfide	ND		0.0050	1	10/22/2013 00:45
Carbon Tetrachloride	ND		0.0050	1	10/22/2013 00:45
Chlorobenzene	ND		0.0050	1	10/22/2013 00:45
Chloroethane	ND		0.0050	1	10/22/2013 00:45
Chloroform	ND		0.0050	1	10/22/2013 00:45
Chloromethane	ND		0.0050	1	10/22/2013 00:45
2-Chlorotoluene	ND		0.0050	1	10/22/2013 00:45
4-Chlorotoluene	ND		0.0050	1	10/22/2013 00:45
Dibromochloromethane	ND		0.0050	1	10/22/2013 00:45
1,2-Dibromo-3-chloropropane	ND		0.0040	1	10/22/2013 00:45
1,2-Dibromoethane (EDB)	ND		0.0040	1	10/22/2013 00:45
Dibromomethane	ND		0.0050	1	10/22/2013 00:45
1,2-Dichlorobenzene	ND		0.0050	1	10/22/2013 00:45
1,3-Dichlorobenzene	ND		0.0050	1	10/22/2013 00:45
1,4-Dichlorobenzene	ND		0.0050	1	10/22/2013 00:45
Dichlorodifluoromethane	ND		0.0050	1	10/22/2013 00:45
1,1-Dichloroethane	ND		0.0050	1	10/22/2013 00:45
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	10/22/2013 00:45
1,1-Dichloroethene	ND		0.0050	1	10/22/2013 00:45
cis-1,2-Dichloroethene	ND		0.0050	1	10/22/2013 00:45
trans-1,2-Dichloroethene	ND		0.0050	1	10/22/2013 00:45
1,2-Dichloropropane	ND		0.0050	1	10/22/2013 00:45
1,3-Dichloropropane	ND		0.0050	1	10/22/2013 00:45
2,2-Dichloropropane	ND		0.0050	1	10/22/2013 00:45
1,1-Dichloropropene	ND		0.0050	1	10/22/2013 00:45

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/16/13-10/21/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-3'	1310373-004A	Soil	10/10/2013 11:35	GC16	83118
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/22/2013 00:45
trans-1,3-Dichloropropene	ND		0.0050	1	10/22/2013 00:45
Diisopropyl ether (DIPE)	ND		0.0050	1	10/22/2013 00:45
Ethylbenzene	ND		0.0050	1	10/22/2013 00:45
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/22/2013 00:45
Freon 113	ND		0.10	1	10/22/2013 00:45
Hexachlorobutadiene	ND		0.0050	1	10/22/2013 00:45
Hexachloroethane	ND		0.0050	1	10/22/2013 00:45
2-Hexanone	ND		0.0050	1	10/22/2013 00:45
Isopropylbenzene	ND		0.0050	1	10/22/2013 00:45
4-Isopropyl toluene	ND		0.0050	1	10/22/2013 00:45
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/22/2013 00:45
Methylene chloride	ND		0.0050	1	10/22/2013 00:45
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/22/2013 00:45
Naphthalene	ND		0.0050	1	10/22/2013 00:45
n-Propyl benzene	ND		0.0050	1	10/22/2013 00:45
Styrene	ND		0.0050	1	10/22/2013 00:45
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/22/2013 00:45
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/22/2013 00:45
Tetrachloroethene	ND		0.0050	1	10/22/2013 00:45
Toluene	ND		0.0050	1	10/22/2013 00:45
1,2,3-Trichlorobenzene	ND		0.0050	1	10/22/2013 00:45
1,2,4-Trichlorobenzene	ND		0.0050	1	10/22/2013 00:45
1,1,1-Trichloroethane	ND		0.0050	1	10/22/2013 00:45
1,1,2-Trichloroethane	ND		0.0050	1	10/22/2013 00:45
Trichloroethene	ND		0.0050	1	10/22/2013 00:45
Trichlorofluoromethane	ND		0.0050	1	10/22/2013 00:45
1,2,3-Trichloropropane	ND		0.0050	1	10/22/2013 00:45
1,2,4-Trimethylbenzene	ND		0.0050	1	10/22/2013 00:45
1,3,5-Trimethylbenzene	ND		0.0050	1	10/22/2013 00:45
Vinyl Chloride	ND		0.0050	1	10/22/2013 00:45
Xylenes, Total	ND		0.0050	1	10/22/2013 00:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	98		70-130		10/22/2013 00:45
Toluene-d8	104		70-130		10/22/2013 00:45
4-BFB	106		70-130		10/22/2013 00:45

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/16/13-10/21/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWN-e-3'	1310373-007A	Soil	10/10/2013 12:05	GC16	82907
<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
Acetone	ND	0.10	1		10/18/2013 20:33
tert-Amyl methyl ether (TAME)	ND	0.0050	1		10/18/2013 20:33
Benzene	ND	0.0050	1		10/18/2013 20:33
Bromobenzene	ND	0.0050	1		10/18/2013 20:33
Bromoform	ND	0.0050	1		10/18/2013 20:33
Bromochloromethane	ND	0.0050	1		10/18/2013 20:33
Bromodichloromethane	ND	0.0050	1		10/18/2013 20:33
Bromomethane	ND	0.0050	1		10/18/2013 20:33
2-Butanone (MEK)	ND	0.020	1		10/18/2013 20:33
t-Butyl alcohol (TBA)	ND	0.050	1		10/18/2013 20:33
n-Butyl benzene	ND	0.0050	1		10/18/2013 20:33
sec-Butyl benzene	ND	0.0050	1		10/18/2013 20:33
tert-Butyl benzene	ND	0.0050	1		10/18/2013 20:33
Carbon Disulfide	ND	0.0050	1		10/18/2013 20:33
Carbon Tetrachloride	ND	0.0050	1		10/18/2013 20:33
Chlorobenzene	ND	0.0050	1		10/18/2013 20:33
Chloroethane	ND	0.0050	1		10/18/2013 20:33
Chloroform	ND	0.0050	1		10/18/2013 20:33
Chloromethane	ND	0.0050	1		10/18/2013 20:33
2-Chlorotoluene	ND	0.0050	1		10/18/2013 20:33
4-Chlorotoluene	ND	0.0050	1		10/18/2013 20:33
Dibromochloromethane	ND	0.0050	1		10/18/2013 20:33
1,2-Dibromo-3-chloropropane	ND	0.0040	1		10/18/2013 20:33
1,2-Dibromoethane (EDB)	ND	0.0040	1		10/18/2013 20:33
Dibromomethane	ND	0.0050	1		10/18/2013 20:33
1,2-Dichlorobenzene	ND	0.0050	1		10/18/2013 20:33
1,3-Dichlorobenzene	ND	0.0050	1		10/18/2013 20:33
1,4-Dichlorobenzene	ND	0.0050	1		10/18/2013 20:33
Dichlorodifluoromethane	ND	0.0050	1		10/18/2013 20:33
1,1-Dichloroethane	ND	0.0050	1		10/18/2013 20:33
1,2-Dichloroethane (1,2-DCA)	ND	0.0040	1		10/18/2013 20:33
1,1-Dichloroethene	ND	0.0050	1		10/18/2013 20:33
cis-1,2-Dichloroethene	ND	0.0050	1		10/18/2013 20:33
trans-1,2-Dichloroethene	ND	0.0050	1		10/18/2013 20:33
1,2-Dichloropropane	ND	0.0050	1		10/18/2013 20:33
1,3-Dichloropropane	ND	0.0050	1		10/18/2013 20:33
2,2-Dichloropropane	ND	0.0050	1		10/18/2013 20:33
1,1-Dichloropropene	ND	0.0050	1		10/18/2013 20:33

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/10/13 13:51  
**Date Prepared:** 10/16/13-10/21/13

**WorkOrder:** 1310373  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWN-e-3'	1310373-007A	Soil	10/10/2013 12:05	GC16	82907
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	10/18/2013 20:33
trans-1,3-Dichloropropene	ND		0.0050	1	10/18/2013 20:33
Diisopropyl ether (DIPE)	ND		0.0050	1	10/18/2013 20:33
Ethylbenzene	ND		0.0050	1	10/18/2013 20:33
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	10/18/2013 20:33
Freon 113	ND		0.10	1	10/18/2013 20:33
Hexachlorobutadiene	ND		0.0050	1	10/18/2013 20:33
Hexachloroethane	ND		0.0050	1	10/18/2013 20:33
2-Hexanone	ND		0.0050	1	10/18/2013 20:33
Isopropylbenzene	ND		0.0050	1	10/18/2013 20:33
4-Isopropyl toluene	ND		0.0050	1	10/18/2013 20:33
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	10/18/2013 20:33
Methylene chloride	ND		0.0050	1	10/18/2013 20:33
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	10/18/2013 20:33
Naphthalene	ND		0.0050	1	10/18/2013 20:33
n-Propyl benzene	ND		0.0050	1	10/18/2013 20:33
Styrene	ND		0.0050	1	10/18/2013 20:33
1,1,1,2-Tetrachloroethane	ND		0.0050	1	10/18/2013 20:33
1,1,2,2-Tetrachloroethane	ND		0.0050	1	10/18/2013 20:33
Tetrachloroethene	ND		0.0050	1	10/18/2013 20:33
Toluene	ND		0.0050	1	10/18/2013 20:33
1,2,3-Trichlorobenzene	ND		0.0050	1	10/18/2013 20:33
1,2,4-Trichlorobenzene	ND		0.0050	1	10/18/2013 20:33
1,1,1-Trichloroethane	ND		0.0050	1	10/18/2013 20:33
1,1,2-Trichloroethane	ND		0.0050	1	10/18/2013 20:33
Trichloroethene	ND		0.0050	1	10/18/2013 20:33
Trichlorofluoromethane	ND		0.0050	1	10/18/2013 20:33
1,2,3-Trichloropropane	ND		0.0050	1	10/18/2013 20:33
1,2,4-Trimethylbenzene	ND		0.0050	1	10/18/2013 20:33
1,3,5-Trimethylbenzene	ND		0.0050	1	10/18/2013 20:33
Vinyl Chloride	ND		0.0050	1	10/18/2013 20:33
Xylenes, Total	ND		0.0050	1	10/18/2013 20:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	96		70-130		10/18/2013 20:33
Toluene-d8	112		70-130		10/18/2013 20:33
4-BFB	115		70-130		10/18/2013 20:33



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310373

**Project:** #298931; FSI

**Extraction Method** SW5030B

**Date Received:** 10/10/13 13:51

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 10/16/13

**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-3'	1310373-004A	Soil	10/10/2013 11:35	GC19	82919
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	18		1.0	1	10/17/2013 23:52
MTBE	---		0.050	1	10/17/2013 23:52
Benzene	---		0.0050	1	10/17/2013 23:52
Toluene	---		0.0050	1	10/17/2013 23:52
Ethylbenzene	---		0.0050	1	10/17/2013 23:52
Xylenes	---		0.0050	1	10/17/2013 23:52
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
2-Fluorotoluene	106		70-130		10/17/2013 23:52
SWN-e-3'	1310373-007A	Soil	10/10/2013 12:05	GC19	82919
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		1.0	1	10/18/2013 02:50
MTBE	---		0.050	1	10/18/2013 02:50
Benzene	---		0.0050	1	10/18/2013 02:50
Toluene	---		0.0050	1	10/18/2013 02:50
Ethylbenzene	---		0.0050	1	10/18/2013 02:50
Xylenes	---		0.0050	1	10/18/2013 02:50
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
2-Fluorotoluene	106		70-130		10/18/2013 02:50



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310373

**Project:** #298931; FSI

**Extraction Method** SW3550B/3630C

**Date Received:** 10/10/13 13:51

**Analytical Method:** SW8015B

**Date Prepared:** 10/16/13

**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWS-e-3'	1310373-004A	Soil	10/10/2013 11:35	GC6A	82920
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	28		1.0	1	10/18/2013 15:17
TPH-Motor Oil (C18-C36)	27		5.0	1	10/18/2013 15:17
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4,e7,e2	
C9	98		70-130		10/18/2013 15:17
SWN-e-3'	1310373-007A	Soil	10/10/2013 12:05	GC6A	82920
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		1.0	1	10/18/2013 16:33
TPH-Motor Oil (C18-C36)	ND		5.0	1	10/18/2013 16:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	98		70-130		10/18/2013 16:33



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/15/13  
**Date Analyzed:** 10/16/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310373  
**BatchID:** 82907  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82907  
1310280-002AMS/MSD

### QC SUMMARY REPORT FOR SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.04989	0.0050	0.050	-	99.8	70-130
Benzene	ND	0.04681	0.0050	0.050	-	93.6	70-130
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.2266	0.050	0.20	-	113	70-130
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.04879	0.0050	0.050	-	97.6	70-130
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0497	0.0040	0.050	-	99.4	70-130
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.05239	0.0040	0.050	-	105	70-130
1,1-Dichloroethene	ND	0.04243	0.0050	0.050	-	84.9	70-130
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/15/13  
**Date Analyzed:** 10/16/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310373  
**BatchID:** 82907  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82907  
1310280-002AMS/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	0.04793	0.0050	0.050	-	95.9	70-130
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.04791	0.0050	0.050	-	95.8	70-130
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.05159	0.0050	0.050	-	103	70-130
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.05133	0.0050	0.050	-	103	70-130
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.05064	0.0050	0.050	-	101	70-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	0.1205	0.1244		0.12	96	100	70-130
Toluene-d8	0.1443	0.1441		0.12	115	115	70-130
4-BFB	0.01464	0.01313		0.012	117	105	70-130

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/15/13  
**Date Analyzed:** 10/16/13  
**Instrument:** GC16  
**Matrix:** Soil  
**Project:** #298931; FSI

**WorkOrder:** 1310373  
**BatchID:** 82907  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-82907  
1310280-002AMS/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)	0.04233	0.04272	0.050	ND	84.7	85.4	56-94	0.910	30
Benzene	0.03693	0.03822	0.050	ND	73.9	76.4	60-106	3.43	30
t-Butyl alcohol (TBA)	0.1811	0.1801	0.20	ND	90.6	90.1	56-140	0.541	30
Chlorobenzene	0.04078	0.04018	0.050	ND	81.6	80.4	61-108	1.47	30
1,2-Dibromoethane (EDB)	0.04165	0.04133	0.050	ND	83.3	82.7	54-119	0.772	30
1,2-Dichloroethane (1,2-DCA)	0.04105	0.04229	0.050	ND	82.1	84.6	48-115	2.96	30
1,1-Dichloroethene	0.03109	0.03451	0.050	ND	62.2	69	46-111	10.4	30
Diisopropyl ether (DIPE)	0.03886	0.03949	0.050	ND	77.7	79	53-111	1.62	30
Ethyl tert-butyl ether (ETBE)	0.03922	0.0397	0.050	ND	78.4	79.4	61-104	1.22	30
Methyl-t-butyl ether (MTBE)	0.04172	0.04212	0.050	ND	83.4	84.2	58-107	0.963	30
Toluene	0.04158	0.04113	0.050	ND	83.2	82.3	64-114	1.10	30
Trichloroethylene	0.03906	0.04125	0.050	ND	78.1	82.5	60-116	5.43	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.1218	0.1227	0.12		97	98	70-130	0.735	30
Toluene-d8	0.1417	0.1402	0.12		113	112	70-130	1.04	30
4-BFB	0.01292	0.01294	0.012		103	103	70-130	0	30

(Cont.)



## Quality Control Report

**Client:** AEI Consultants

**WorkOrder:** 1310373

**Date Prepared:**

**BatchID:** 83118

**Date Analyzed:**

**Extraction Method:** SW5030B

**Instrument:** GC16

**Analytical Method:** SW8260B

**Matrix:** Soil

**Unit:** mg/Kg

**Project:** #298931; FSI

**Sample ID:**

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### QC SUMMARY REPORT FOR SW8260B



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310373
<b>Date Prepared:</b>	10/15/13	<b>BatchID:</b>	82919
<b>Date Analyzed:</b>	10/16/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC19	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82919 1310519-008AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.613	0.40	0.60	-	102	70-130
MTBE	ND	0.1009	0.050	0.10	-	101	70-130
Benzene	ND	0.12	0.0050	0.10	-	120	70-130
Toluene	ND	0.1219	0.0050	0.10	-	122	70-130
Ethylbenzene	ND	0.1198	0.0050	0.10	-	120	70-130
Xylenes	ND	0.369	0.0050	0.30	-	123	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.1108	0.112	0.10	111	112	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.567	0.6371	0.60	ND	94.5	106	70-130	11.6	20
MTBE	0.08772	0.08591	0.10	ND	87.7	85.9	70-130	2.08	20
Benzene	0.1205	0.1165	0.10	ND	121	116	70-130	3.43	20
Toluene	0.1203	0.1175	0.10	ND	120	118	70-130	2.31	20
Ethylbenzene	0.1179	0.1157	0.10	ND	118	116	70-130	1.93	20
Xylenes	0.3701	0.3674	0.30	ND	123	122	70-130	0.735	20

**Surrogate Recovery**

2-Fluorotoluene	0.1109	0.1017	0.10	111	102	70-130	8.72	20
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## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310373
<b>Date Prepared:</b>	10/15/13	<b>BatchID:</b>	82920
<b>Date Analyzed:</b>	10/16/13 - 10/17/13	<b>Extraction Method</b>	SW3550B/3630C
<b>Instrument:</b>	GC6A, GC6B	<b>Analytical Method:</b>	SW8015B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/Kg
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-82920 1310517-015AMS/MSD

### QC SUMMARY REPORT FOR SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
TPH-Diesel (C10-C23)	ND	38.48	1.0	40	-	96.2	70-130		
<b>Surrogate Recovery</b>									
C9	27.87	22.4		25	111	90	70-130		
<hr/>									
Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR	0	310	NR	NR	-	NR	
<b>Surrogate Recovery</b>								NR	
C9	NR	NR	0		NR	NR	-	NR	



# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1310373 A ClientCode: AEL

WaterTrax  WriteOn  EDF  Excel  Fax  Email  HardCopy  ThirdParty  J-flag

Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
cc:  
PO: #WC084379  
ProjectNo: #298931; FSI

Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIConsultants.co

Requested TAT: 1 day

Date Received: 10/10/2013

Date Add-On: 10/16/2013

Date Printed: 10/16/2013

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
1310373-004	SWS-e-3'	Soil	10/10/2013 11:35	<input type="checkbox"/>	A	A	A									
1310373-007	SWN-e-3'	Soil	10/10/2013 12:05	<input type="checkbox"/>	A	A	A									

Test Legend:

1	8260B_S	2	G-MBTEX_S	3	TPH(DMO)WSG_S	4		5	
6		7		8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments: Samples 004 & 007 taken off hold and setup for MultiRange w/SG & VOCs 10/16/13 5d.

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.

# RUSH

1310373

McCAMPBELL ANALYTICAL INC.								CHAIN OF CUSTODY RECORD															
1538 Willow Pass Road, Pittsburg, CA 94565								TURN AROUND TIME															
Telephone: (925) 252-9262				Fax: (925) 252-9269				<input type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>									
Report To: Jeremy Smith								Bill To: AEI Consultants															
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597								EDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															
PO# WC0843 79								PDF Required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No															
Global ID: T0600100655								Analysis Request															
E-Mail: jasmith@aeiconsultatns.com								Other															
Telephone: (925) 746-6000, ext. 1128								Comments															
Fax: (925) 746-6099																							
AEI Project No. 298931																							
Project Name: FSI																							
Project Location: 1630 Park St., Alameda, CA 94501																							
Sampler Signature: <i>Jwall</i>																							
SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	MATRIX				METHOD PRESERVED														
		Date	Time		Type	Containers	Water	Soil	Air	Sludge	Other	Ice	HCL	HNO <sub>3</sub>	Other	TPH-G (EPA 8015 M)	TPH-D / TPH-MO (EPA 8015 M. w/ Silica Gel Clean-up)	BTXEX, MTBE (EPA 8260(B))	Vac: 8260	HOLD			
EBE-12		10/10/13	11:10	1	STL	X			X					X	X								
SWS-e-10			11:25											X	X								
SWS-e-6			11:30											X	X								
SWS-e-3			11:35											X	X				*				
SWN-e-10			11:45											X	X								
SWN-e-6			12:00											X	X				*				
SWN-e-3			12:05											X	X				*				
Relinquished By:	Date:	Time:	Received By:																				
<i>Andrew Wallace</i>	10/10/13	11:40	<i>John M</i>																				
Relinquished By:	Date:	Time:	Received By:																				
Relinquished By:	Date:	Time:	Received By:																				
								ICE/t° <i>S.2</i>								VOAS				O&G			
								GOOD CONDITION								METALS				OTHER			
								HEAD SPACE ABSENT								PRESERVATION APPROPRIATE CONTAINERS							
								DECHLORINATED IN LAB								PERSERVED IN LAB							
								added 10/16/13 STAT															



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310870

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084429

**Project Name:** #298931; FSI

**Project Received:** 10/25/2013

Analytical Report reviewed & approved for release on 11/06/2013 by:

Question about  
your data?

[Click here to email](#)  
McCAMPBELL

Angela Rydelius,  
Laboratory Manager

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The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ [www.mccampbell.com](http://www.mccampbell.com)

NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310870

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

S	spike recovery outside accepted recovery limits
c4	surrogate recovery outside of the control limits due to coelution with another peak(s) / cluttered chromatogram.
d1	weakly modified or unmodified gasoline is significant

### Quality Control Qualifier

F1	MS/MSD recovery was out of acceptance criteria; LCS validated the prep batch.
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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:**  $\mu\text{g/L}$

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

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
MW-1	1310870-001B	Water	10/24/2013	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		20	2	10/28/2013 23:33
tert-Amyl methyl ether (TAME)	ND		1.0	2	10/28/2013 23:33
Benzene	<b>39</b>		1.0	2	10/28/2013 23:33
Bromobenzene	ND		1.0	2	10/28/2013 23:33
Bromoform	ND		1.0	2	10/28/2013 23:33
Bromomethane	ND		1.0	2	10/28/2013 23:33
Bromodichloromethane	ND		1.0	2	10/28/2013 23:33
2-Butanone (MEK)	ND		4.0	2	10/28/2013 23:33
t-Butyl alcohol (TBA)	ND		4.0	2	10/28/2013 23:33
n-Butyl benzene	ND		1.0	2	10/28/2013 23:33
sec-Butyl benzene	<b>1.3</b>		1.0	2	10/28/2013 23:33
tert-Butyl benzene	ND		1.0	2	10/28/2013 23:33
Carbon Disulfide	ND		1.0	2	10/28/2013 23:33
Carbon Tetrachloride	ND		1.0	2	10/28/2013 23:33
Chlorobenzene	ND		1.0	2	10/28/2013 23:33
Chloroethane	ND		1.0	2	10/28/2013 23:33
Chloroform	ND		1.0	2	10/28/2013 23:33
Chloromethane	ND		1.0	2	10/28/2013 23:33
2-Chlorotoluene	ND		1.0	2	10/28/2013 23:33
4-Chlorotoluene	ND		1.0	2	10/28/2013 23:33
Dibromochloromethane	ND		1.0	2	10/28/2013 23:33
1,2-Dibromo-3-chloropropane	ND		0.40	2	10/28/2013 23:33
1,2-Dibromoethane (EDB)	ND		1.0	2	10/28/2013 23:33
Dibromomethane	ND		1.0	2	10/28/2013 23:33
1,2-Dichlorobenzene	ND		1.0	2	10/28/2013 23:33
1,3-Dichlorobenzene	ND		1.0	2	10/28/2013 23:33
1,4-Dichlorobenzene	ND		1.0	2	10/28/2013 23:33
Dichlorodifluoromethane	ND		1.0	2	10/28/2013 23:33
1,1-Dichloroethane	ND		1.0	2	10/28/2013 23:33
1,2-Dichloroethane (1,2-DCA)	ND		1.0	2	10/28/2013 23:33
1,1-Dichloroethene	ND		1.0	2	10/28/2013 23:33
cis-1,2-Dichloroethene	ND		1.0	2	10/28/2013 23:33
trans-1,2-Dichloroethene	ND		1.0	2	10/28/2013 23:33
1,2-Dichloropropane	ND		1.0	2	10/28/2013 23:33
1,3-Dichloropropane	ND		1.0	2	10/28/2013 23:33
2,2-Dichloropropane	ND		1.0	2	10/28/2013 23:33
1,1-Dichloropropene	ND		1.0	2	10/28/2013 23:33

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
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**WorkOrder:** 1310870  
**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	1310870-001B	Water	10/24/2013	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		1.0	2	10/28/2013 23:33
trans-1,3-Dichloropropene	ND		1.0	2	10/28/2013 23:33
Diisopropyl ether (DIPE)	ND		1.0	2	10/28/2013 23:33
Ethylbenzene	29		1.0	2	10/28/2013 23:33
Ethyl tert-butyl ether (ETBE)	ND		1.0	2	10/28/2013 23:33
Freon 113	ND		1.0	2	10/28/2013 23:33
Hexachlorobutadiene	ND		1.0	2	10/28/2013 23:33
Hexachloroethane	ND		1.0	2	10/28/2013 23:33
2-Hexanone	ND		1.0	2	10/28/2013 23:33
Isopropylbenzene	3.6		1.0	2	10/28/2013 23:33
4-Isopropyl toluene	ND		1.0	2	10/28/2013 23:33
Methyl-t-butyl ether (MTBE)	ND		1.0	2	10/28/2013 23:33
Methylene chloride	ND		1.0	2	10/28/2013 23:33
4-Methyl-2-pentanone (MIBK)	ND		1.0	2	10/28/2013 23:33
Naphthalene	19		1.0	2	10/28/2013 23:33
n-Propyl benzene	3.3		1.0	2	10/28/2013 23:33
Styrene	ND		1.0	2	10/28/2013 23:33
1,1,1,2-Tetrachloroethane	ND		1.0	2	10/28/2013 23:33
1,1,2,2-Tetrachloroethane	ND		1.0	2	10/28/2013 23:33
Tetrachloroethene	ND		1.0	2	10/28/2013 23:33
Toluene	ND		1.0	2	10/28/2013 23:33
1,2,3-Trichlorobenzene	ND		1.0	2	10/28/2013 23:33
1,2,4-Trichlorobenzene	ND		1.0	2	10/28/2013 23:33
1,1,1-Trichloroethane	ND		1.0	2	10/28/2013 23:33
1,1,2-Trichloroethane	ND		1.0	2	10/28/2013 23:33
Trichloroethene	ND		1.0	2	10/28/2013 23:33
Trichlorofluoromethane	ND		1.0	2	10/28/2013 23:33
1,2,3-Trichloropropane	6.4		1.0	2	10/28/2013 23:33
1,2,4-Trimethylbenzene	29		1.0	2	10/28/2013 23:33
1,3,5-Trimethylbenzene	ND		1.0	2	10/28/2013 23:33
Vinyl Chloride	ND		1.0	2	10/28/2013 23:33
Xylenes, Total	5.2		1.0	2	10/28/2013 23:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		10/28/2013 23:33
Toluene-d8	97		70-130		10/28/2013 23:33
4-BFB	90		70-130		10/28/2013 23:33

(Cont.)



## Analytical Report

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**WorkOrder:** 1310870  
**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	1310870-002B	Water	10/24/2013 16:50	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/28/2013 12:41
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/28/2013 12:41
Benzene	5.0		0.50	1	10/28/2013 12:41
Bromobenzene	ND		0.50	1	10/28/2013 12:41
Bromoform	ND		0.50	1	10/28/2013 12:41
Bromochloromethane	ND		0.50	1	10/28/2013 12:41
Bromodichloromethane	ND		0.50	1	10/28/2013 12:41
Bromomethane	ND		0.50	1	10/28/2013 12:41
2-Butanone (MEK)	ND		2.0	1	10/28/2013 12:41
t-Butyl alcohol (TBA)	13		2.0	1	10/28/2013 12:41
n-Butyl benzene	1.7		0.50	1	10/28/2013 12:41
sec-Butyl benzene	2.4		0.50	1	10/28/2013 12:41
tert-Butyl benzene	ND		0.50	1	10/28/2013 12:41
Carbon Disulfide	ND		0.50	1	10/28/2013 12:41
Carbon Tetrachloride	ND		0.50	1	10/28/2013 12:41
Chlorobenzene	ND		0.50	1	10/28/2013 12:41
Chloroethane	ND		0.50	1	10/28/2013 12:41
Chloroform	ND		0.50	1	10/28/2013 12:41
Chloromethane	ND		0.50	1	10/28/2013 12:41
2-Chlorotoluene	ND		0.50	1	10/28/2013 12:41
4-Chlorotoluene	ND		0.50	1	10/28/2013 12:41
Dibromochloromethane	ND		0.50	1	10/28/2013 12:41
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/28/2013 12:41
1,2-Dibromoethane (EDB)	ND		0.50	1	10/28/2013 12:41
Dibromomethane	ND		0.50	1	10/28/2013 12:41
1,2-Dichlorobenzene	ND		0.50	1	10/28/2013 12:41
1,3-Dichlorobenzene	ND		0.50	1	10/28/2013 12:41
1,4-Dichlorobenzene	ND		0.50	1	10/28/2013 12:41
Dichlorodifluoromethane	ND		0.50	1	10/28/2013 12:41
1,1-Dichloroethane	ND		0.50	1	10/28/2013 12:41
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/28/2013 12:41
1,1-Dichloroethene	ND		0.50	1	10/28/2013 12:41
cis-1,2-Dichloroethene	ND		0.50	1	10/28/2013 12:41
trans-1,2-Dichloroethene	ND		0.50	1	10/28/2013 12:41
1,2-Dichloropropane	ND		0.50	1	10/28/2013 12:41
1,3-Dichloropropane	ND		0.50	1	10/28/2013 12:41
2,2-Dichloropropane	ND		0.50	1	10/28/2013 12:41
1,1-Dichloropropene	ND		0.50	1	10/28/2013 12:41

(Cont.)



## Analytical Report

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**WorkOrder:** 1310870  
**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	1310870-002B	Water	10/24/2013 16:50	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/28/2013 12:41
trans-1,3-Dichloropropene	ND		0.50	1	10/28/2013 12:41
Diisopropyl ether (DIPE)	ND		0.50	1	10/28/2013 12:41
Ethylbenzene	2.8		0.50	1	10/28/2013 12:41
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/28/2013 12:41
Freon 113	ND		0.50	1	10/28/2013 12:41
Hexachlorobutadiene	ND		0.50	1	10/28/2013 12:41
Hexachloroethane	ND		0.50	1	10/28/2013 12:41
2-Hexanone	ND		0.50	1	10/28/2013 12:41
Isopropylbenzene	1.1		0.50	1	10/28/2013 12:41
4-Isopropyl toluene	0.89		0.50	1	10/28/2013 12:41
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/28/2013 12:41
Methylene chloride	ND		0.50	1	10/28/2013 12:41
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/28/2013 12:41
Naphthalene	24		0.50	1	10/28/2013 12:41
n-Propyl benzene	0.75		0.50	1	10/28/2013 12:41
Styrene	ND		0.50	1	10/28/2013 12:41
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/28/2013 12:41
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/28/2013 12:41
Tetrachloroethene	ND		0.50	1	10/28/2013 12:41
Toluene	ND		0.50	1	10/28/2013 12:41
1,2,3-Trichlorobenzene	ND		0.50	1	10/28/2013 12:41
1,2,4-Trichlorobenzene	ND		0.50	1	10/28/2013 12:41
1,1,1-Trichloroethane	ND		0.50	1	10/28/2013 12:41
1,1,2-Trichloroethane	ND		0.50	1	10/28/2013 12:41
Trichloroethene	5.5		0.50	1	10/28/2013 12:41
Trichlorofluoromethane	ND		0.50	1	10/28/2013 12:41
1,2,3-Trichloropropane	1.9		0.50	1	10/28/2013 12:41
1,2,4-Trimethylbenzene	4.6		0.50	1	10/28/2013 12:41
1,3,5-Trimethylbenzene	1.7		0.50	1	10/28/2013 12:41
Vinyl Chloride	ND		0.50	1	10/28/2013 12:41
Xylenes, Total	1.3		0.50	1	10/28/2013 12:41
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	104		70-130		10/28/2013 12:41
Toluene-d8	98		70-130		10/28/2013 12:41
4-BFB	89		70-130		10/28/2013 12:41

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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	1310870-003B	Water	10/24/2013 14:05	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		25	2.5	10/29/2013 00:49
tert-Amyl methyl ether (TAME)	ND		1.2	2.5	10/29/2013 00:49
Benzene	4.2		1.2	2.5	10/29/2013 00:49
Bromobenzene	ND		1.2	2.5	10/29/2013 00:49
Bromoform	ND		1.2	2.5	10/29/2013 00:49
Bromochloromethane	ND		1.2	2.5	10/29/2013 00:49
Bromodichloromethane	ND		1.2	2.5	10/29/2013 00:49
Bromomethane	ND		1.2	2.5	10/29/2013 00:49
2-Butanone (MEK)	ND		5.0	2.5	10/29/2013 00:49
t-Butyl alcohol (TBA)	5.9		5.0	2.5	10/29/2013 00:49
n-Butyl benzene	ND		1.2	2.5	10/29/2013 00:49
sec-Butyl benzene	ND		1.2	2.5	10/29/2013 00:49
tert-Butyl benzene	ND		1.2	2.5	10/29/2013 00:49
Carbon Disulfide	ND		1.2	2.5	10/29/2013 00:49
Carbon Tetrachloride	ND		1.2	2.5	10/29/2013 00:49
Chlorobenzene	ND		1.2	2.5	10/29/2013 00:49
Chloroethane	ND		1.2	2.5	10/29/2013 00:49
Chloroform	ND		1.2	2.5	10/29/2013 00:49
Chloromethane	ND		1.2	2.5	10/29/2013 00:49
2-Chlorotoluene	ND		1.2	2.5	10/29/2013 00:49
4-Chlorotoluene	ND		1.2	2.5	10/29/2013 00:49
Dibromochloromethane	ND		1.2	2.5	10/29/2013 00:49
1,2-Dibromo-3-chloropropane	ND		0.50	2.5	10/29/2013 00:49
1,2-Dibromoethane (EDB)	ND		1.2	2.5	10/29/2013 00:49
Dibromomethane	ND		1.2	2.5	10/29/2013 00:49
1,2-Dichlorobenzene	ND		1.2	2.5	10/29/2013 00:49
1,3-Dichlorobenzene	ND		1.2	2.5	10/29/2013 00:49
1,4-Dichlorobenzene	ND		1.2	2.5	10/29/2013 00:49
Dichlorodifluoromethane	ND		1.2	2.5	10/29/2013 00:49
1,1-Dichloroethane	ND		1.2	2.5	10/29/2013 00:49
1,2-Dichloroethane (1,2-DCA)	ND		1.2	2.5	10/29/2013 00:49
1,1-Dichloroethene	ND		1.2	2.5	10/29/2013 00:49
cis-1,2-Dichloroethene	1.3		1.2	2.5	10/29/2013 00:49
trans-1,2-Dichloroethene	ND		1.2	2.5	10/29/2013 00:49
1,2-Dichloropropane	ND		1.2	2.5	10/29/2013 00:49
1,3-Dichloropropane	ND		1.2	2.5	10/29/2013 00:49
2,2-Dichloropropane	ND		1.2	2.5	10/29/2013 00:49
1,1-Dichloropropene	ND		1.2	2.5	10/29/2013 00:49

(Cont.)



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**Date Received:** 10/25/13 19:38  
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**WorkOrder:** 1310870  
**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	1310870-003B	Water	10/24/2013 14:05	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		1.2	2.5	10/29/2013 00:49
trans-1,3-Dichloropropene	ND		1.2	2.5	10/29/2013 00:49
Diisopropyl ether (DIPE)	ND		1.2	2.5	10/29/2013 00:49
Ethylbenzene	ND		1.2	2.5	10/29/2013 00:49
Ethyl tert-butyl ether (ETBE)	ND		1.2	2.5	10/29/2013 00:49
Freon 113	ND		1.2	2.5	10/29/2013 00:49
Hexachlorobutadiene	ND		1.2	2.5	10/29/2013 00:49
Hexachloroethane	ND		1.2	2.5	10/29/2013 00:49
2-Hexanone	ND		1.2	2.5	10/29/2013 00:49
Isopropylbenzene	ND		1.2	2.5	10/29/2013 00:49
4-Isopropyl toluene	ND		1.2	2.5	10/29/2013 00:49
Methyl-t-butyl ether (MTBE)	ND		1.2	2.5	10/29/2013 00:49
Methylene chloride	ND		1.2	2.5	10/29/2013 00:49
4-Methyl-2-pentanone (MIBK)	ND		1.2	2.5	10/29/2013 00:49
Naphthalene	<b>24</b>		1.2	2.5	10/29/2013 00:49
n-Propyl benzene	ND		1.2	2.5	10/29/2013 00:49
Styrene	ND		1.2	2.5	10/29/2013 00:49
1,1,1,2-Tetrachloroethane	ND		1.2	2.5	10/29/2013 00:49
1,1,2,2-Tetrachloroethane	ND		1.2	2.5	10/29/2013 00:49
Tetrachloroethene	ND		1.2	2.5	10/29/2013 00:49
Toluene	ND		1.2	2.5	10/29/2013 00:49
1,2,3-Trichlorobenzene	ND		1.2	2.5	10/29/2013 00:49
1,2,4-Trichlorobenzene	ND		1.2	2.5	10/29/2013 00:49
1,1,1-Trichloroethane	ND		1.2	2.5	10/29/2013 00:49
1,1,2-Trichloroethane	ND		1.2	2.5	10/29/2013 00:49
Trichloroethene	<b>64</b>		1.2	2.5	10/29/2013 00:49
Trichlorofluoromethane	ND		1.2	2.5	10/29/2013 00:49
1,2,3-Trichloropropane	ND		1.2	2.5	10/29/2013 00:49
1,2,4-Trimethylbenzene	<b>1.4</b>		1.2	2.5	10/29/2013 00:49
1,3,5-Trimethylbenzene	ND		1.2	2.5	10/29/2013 00:49
Vinyl Chloride	ND		1.2	2.5	10/29/2013 00:49
Xylenes, Total	ND		1.2	2.5	10/29/2013 00:49
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		10/29/2013 00:49
Toluene-d8	99		70-130		10/29/2013 00:49
4-BFB	93		70-130		10/29/2013 00:49

(Cont.)



## Analytical Report

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**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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	1310870-004B	Water	10/24/2013 10:14	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 12:55
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 12:55
Benzene	ND		0.50	1	10/29/2013 12:55
Bromobenzene	ND		0.50	1	10/29/2013 12:55
Bromoform	ND		0.50	1	10/29/2013 12:55
Bromochloromethane	ND		0.50	1	10/29/2013 12:55
Bromodichloromethane	ND		0.50	1	10/29/2013 12:55
Bromoform	ND		0.50	1	10/29/2013 12:55
Bromomethane	ND		0.50	1	10/29/2013 12:55
2-Butanone (MEK)	ND		2.0	1	10/29/2013 12:55
t-Butyl alcohol (TBA)	ND		2.0	1	10/29/2013 12:55
n-Butyl benzene	ND		0.50	1	10/29/2013 12:55
sec-Butyl benzene	ND		0.50	1	10/29/2013 12:55
tert-Butyl benzene	ND		0.50	1	10/29/2013 12:55
Carbon Disulfide	ND		0.50	1	10/29/2013 12:55
Carbon Tetrachloride	ND		0.50	1	10/29/2013 12:55
Chlorobenzene	ND		0.50	1	10/29/2013 12:55
Chloroethane	ND		0.50	1	10/29/2013 12:55
Chloroform	9.8		0.50	1	10/29/2013 12:55
Chloromethane	ND		0.50	1	10/29/2013 12:55
2-Chlorotoluene	ND		0.50	1	10/29/2013 12:55
4-Chlorotoluene	ND		0.50	1	10/29/2013 12:55
Dibromochloromethane	ND		0.50	1	10/29/2013 12:55
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 12:55
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 12:55
Dibromomethane	ND		0.50	1	10/29/2013 12:55
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 12:55
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 12:55
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 12:55
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 12:55
1,1-Dichloroethane	ND		0.50	1	10/29/2013 12:55
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 12:55
1,1-Dichloroethene	ND		0.50	1	10/29/2013 12:55
cis-1,2-Dichloroethene	ND		0.50	1	10/29/2013 12:55
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 12:55
1,2-Dichloropropane	ND		0.50	1	10/29/2013 12:55
1,3-Dichloropropane	ND		0.50	1	10/29/2013 12:55
2,2-Dichloropropane	ND		0.50	1	10/29/2013 12:55
1,1-Dichloropropene	ND		0.50	1	10/29/2013 12:55

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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	1310870-004B	Water	10/24/2013 10:14	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 12:55
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 12:55
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 12:55
Ethylbenzene	ND		0.50	1	10/29/2013 12:55
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 12:55
Freon 113	ND		0.50	1	10/29/2013 12:55
Hexachlorobutadiene	ND		0.50	1	10/29/2013 12:55
Hexachloroethane	ND		0.50	1	10/29/2013 12:55
2-Hexanone	ND		0.50	1	10/29/2013 12:55
Isopropylbenzene	ND		0.50	1	10/29/2013 12:55
4-Isopropyl toluene	ND		0.50	1	10/29/2013 12:55
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 12:55
Methylene chloride	ND		0.50	1	10/29/2013 12:55
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 12:55
Naphthalene	ND		0.50	1	10/29/2013 12:55
n-Propyl benzene	ND		0.50	1	10/29/2013 12:55
Styrene	ND		0.50	1	10/29/2013 12:55
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 12:55
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 12:55
Tetrachloroethene	13		0.50	1	10/29/2013 12:55
Toluene	ND		0.50	1	10/29/2013 12:55
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 12:55
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 12:55
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 12:55
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 12:55
Trichloroethene	18		0.50	1	10/29/2013 12:55
Trichlorofluoromethane	ND		0.50	1	10/29/2013 12:55
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 12:55
1,2,4-Trimethylbenzene	ND		0.50	1	10/29/2013 12:55
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 12:55
Vinyl Chloride	ND		0.50	1	10/29/2013 12:55
Xylenes, Total	ND		0.50	1	10/29/2013 12:55
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	105		70-130		10/29/2013 12:55
Toluene-d8	100		70-130		10/29/2013 12:55
4-BFB	94		70-130		10/29/2013 12:55

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CDPH ELAP 1644 ♦ NELAP 12283CA

KF Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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	1310870-005B	Water	10/24/2013 10:59	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 13:33
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 13:33
Benzene	5.2		0.50	1	10/29/2013 13:33
Bromobenzene	ND		0.50	1	10/29/2013 13:33
Bromoform	ND		0.50	1	10/29/2013 13:33
Bromomethane	ND		0.50	1	10/29/2013 13:33
2-Butanone (MEK)	ND		2.0	1	10/29/2013 13:33
t-Butyl alcohol (TBA)	ND		2.0	1	10/29/2013 13:33
n-Butyl benzene	ND		0.50	1	10/29/2013 13:33
sec-Butyl benzene	ND		0.50	1	10/29/2013 13:33
tert-Butyl benzene	ND		0.50	1	10/29/2013 13:33
Carbon Disulfide	ND		0.50	1	10/29/2013 13:33
Carbon Tetrachloride	ND		0.50	1	10/29/2013 13:33
Chlorobenzene	ND		0.50	1	10/29/2013 13:33
Chloroethane	ND		0.50	1	10/29/2013 13:33
Chloroform	ND		0.50	1	10/29/2013 13:33
Chloromethane	ND		0.50	1	10/29/2013 13:33
2-Chlorotoluene	ND		0.50	1	10/29/2013 13:33
4-Chlorotoluene	ND		0.50	1	10/29/2013 13:33
Dibromochloromethane	ND		0.50	1	10/29/2013 13:33
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 13:33
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 13:33
Dibromomethane	ND		0.50	1	10/29/2013 13:33
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 13:33
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 13:33
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 13:33
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 13:33
1,1-Dichloroethane	ND		0.50	1	10/29/2013 13:33
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 13:33
1,1-Dichloroethene	ND		0.50	1	10/29/2013 13:33
cis-1,2-Dichloroethene	0.59		0.50	1	10/29/2013 13:33
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 13:33
1,2-Dichloropropane	ND		0.50	1	10/29/2013 13:33
1,3-Dichloropropane	ND		0.50	1	10/29/2013 13:33
2,2-Dichloropropane	ND		0.50	1	10/29/2013 13:33
1,1-Dichloropropene	ND		0.50	1	10/29/2013 13:33

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## Analytical Report

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**WorkOrder:** 1310870  
**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	1310870-005B	Water	10/24/2013 10:59	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 13:33
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 13:33
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 13:33
Ethylbenzene	<b>0.73</b>		0.50	1	10/29/2013 13:33
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 13:33
Freon 113	ND		0.50	1	10/29/2013 13:33
Hexachlorobutadiene	ND		0.50	1	10/29/2013 13:33
Hexachloroethane	ND		0.50	1	10/29/2013 13:33
2-Hexanone	ND		0.50	1	10/29/2013 13:33
Isopropylbenzene	ND		0.50	1	10/29/2013 13:33
4-Isopropyl toluene	ND		0.50	1	10/29/2013 13:33
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 13:33
Methylene chloride	ND		0.50	1	10/29/2013 13:33
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 13:33
Naphthalene	<b>1.3</b>		0.50	1	10/29/2013 13:33
n-Propyl benzene	ND		0.50	1	10/29/2013 13:33
Styrene	ND		0.50	1	10/29/2013 13:33
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 13:33
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 13:33
Tetrachloroethene	<b>6.7</b>		0.50	1	10/29/2013 13:33
Toluene	ND		0.50	1	10/29/2013 13:33
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 13:33
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 13:33
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 13:33
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 13:33
Trichloroethene	<b>16</b>		0.50	1	10/29/2013 13:33
Trichlorofluoromethane	ND		0.50	1	10/29/2013 13:33
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 13:33
1,2,4-Trimethylbenzene	<b>8.0</b>		0.50	1	10/29/2013 13:33
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 13:33
Vinyl Chloride	ND		0.50	1	10/29/2013 13:33
Xylenes, Total	<b>1.9</b>		0.50	1	10/29/2013 13:33
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	104		70-130		10/29/2013 13:33
Toluene-d8	99		70-130		10/29/2013 13:33
4-BFB	96		70-130		10/29/2013 13:33

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-1	1310870-006B	Water	10/24/2013 15:00	GC18	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 17:04
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 17:04
Benzene	6.1		0.50	1	10/29/2013 17:04
Bromobenzene	ND		0.50	1	10/29/2013 17:04
Bromoform	ND		0.50	1	10/29/2013 17:04
Bromomethane	ND		0.50	1	10/29/2013 17:04
2-Butanone (MEK)	ND		2.0	1	10/29/2013 17:04
t-Butyl alcohol (TBA)	9.5		2.0	1	10/29/2013 17:04
n-Butyl benzene	ND		0.50	1	10/29/2013 17:04
sec-Butyl benzene	1.9		0.50	1	10/29/2013 17:04
tert-Butyl benzene	ND		0.50	1	10/29/2013 17:04
Carbon Disulfide	ND		0.50	1	10/29/2013 17:04
Carbon Tetrachloride	ND		0.50	1	10/29/2013 17:04
Chlorobenzene	ND		0.50	1	10/29/2013 17:04
Chloroethane	ND		0.50	1	10/29/2013 17:04
Chloroform	ND		0.50	1	10/29/2013 17:04
Chloromethane	ND		0.50	1	10/29/2013 17:04
2-Chlorotoluene	ND		0.50	1	10/29/2013 17:04
4-Chlorotoluene	ND		0.50	1	10/29/2013 17:04
Dibromochloromethane	ND		0.50	1	10/29/2013 17:04
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 17:04
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 17:04
Dibromomethane	ND		0.50	1	10/29/2013 17:04
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 17:04
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 17:04
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 17:04
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 17:04
1,1-Dichloroethane	ND		0.50	1	10/29/2013 17:04
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 17:04
1,1-Dichloroethene	ND		0.50	1	10/29/2013 17:04
cis-1,2-Dichloroethene	ND		0.50	1	10/29/2013 17:04
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 17:04
1,2-Dichloropropane	ND		0.50	1	10/29/2013 17:04
1,3-Dichloropropane	ND		0.50	1	10/29/2013 17:04
2,2-Dichloropropane	ND		0.50	1	10/29/2013 17:04
1,1-Dichloropropene	ND		0.50	1	10/29/2013 17:04

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-1	1310870-006B	Water	10/24/2013 15:00	GC18	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 17:04
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 17:04
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 17:04
Ethylbenzene	3.6		0.50	1	10/29/2013 17:04
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 17:04
Freon 113	ND		0.50	1	10/29/2013 17:04
Hexachlorobutadiene	ND		0.50	1	10/29/2013 17:04
Hexachloroethane	ND		0.50	1	10/29/2013 17:04
2-Hexanone	ND		0.50	1	10/29/2013 17:04
Isopropylbenzene	3.5		0.50	1	10/29/2013 17:04
4-Isopropyl toluene	1.4		0.50	1	10/29/2013 17:04
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 17:04
Methylene chloride	ND		0.50	1	10/29/2013 17:04
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 17:04
Naphthalene	ND		0.50	1	10/29/2013 17:04
n-Propyl benzene	4.2		0.50	1	10/29/2013 17:04
Styrene	ND		0.50	1	10/29/2013 17:04
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 17:04
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 17:04
Tetrachloroethene	ND		0.50	1	10/29/2013 17:04
Toluene	0.78		0.50	1	10/29/2013 17:04
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 17:04
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 17:04
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 17:04
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 17:04
Trichloroethene	ND		0.50	1	10/29/2013 17:04
Trichlorofluoromethane	ND		0.50	1	10/29/2013 17:04
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 17:04
1,2,4-Trimethylbenzene	14		0.50	1	10/29/2013 17:04
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 17:04
Vinyl Chloride	ND		0.50	1	10/29/2013 17:04
Xylenes, Total	3.5		0.50	1	10/29/2013 17:04
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	100		70-130		10/29/2013 17:04
Toluene-d8	95		70-130		10/29/2013 17:04
4-BFB	92		70-130		10/29/2013 17:04

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-4	1310870-007B	Water	10/24/2013 14:30	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 22:29
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 22:29
Benzene	4.4		0.50	1	10/29/2013 22:29
Bromobenzene	ND		0.50	1	10/29/2013 22:29
Bromoform	ND		0.50	1	10/29/2013 22:29
Bromomethane	ND		0.50	1	10/29/2013 22:29
2-Butanone (MEK)	ND		2.0	1	10/29/2013 22:29
t-Butyl alcohol (TBA)	16		2.0	1	10/29/2013 22:29
n-Butyl benzene	ND		0.50	1	10/29/2013 22:29
sec-Butyl benzene	2.1		0.50	1	10/29/2013 22:29
tert-Butyl benzene	ND		0.50	1	10/29/2013 22:29
Carbon Disulfide	ND		0.50	1	10/29/2013 22:29
Carbon Tetrachloride	ND		0.50	1	10/29/2013 22:29
Chlorobenzene	ND		0.50	1	10/29/2013 22:29
Chloroethane	ND		0.50	1	10/29/2013 22:29
Chloroform	ND		0.50	1	10/29/2013 22:29
Chloromethane	ND		0.50	1	10/29/2013 22:29
2-Chlorotoluene	ND		0.50	1	10/29/2013 22:29
4-Chlorotoluene	ND		0.50	1	10/29/2013 22:29
Dibromochloromethane	ND		0.50	1	10/29/2013 22:29
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 22:29
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 22:29
Dibromomethane	ND		0.50	1	10/29/2013 22:29
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 22:29
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 22:29
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 22:29
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 22:29
1,1-Dichloroethane	ND		0.50	1	10/29/2013 22:29
1,2-Dichloroethane (1,2-DCA)	4.1		0.50	1	10/29/2013 22:29
1,1-Dichloroethene	ND		0.50	1	10/29/2013 22:29
cis-1,2-Dichloroethene	ND		0.50	1	10/29/2013 22:29
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 22:29
1,2-Dichloropropane	ND		0.50	1	10/29/2013 22:29
1,3-Dichloropropane	ND		0.50	1	10/29/2013 22:29
2,2-Dichloropropane	ND		0.50	1	10/29/2013 22:29
1,1-Dichloropropene	ND		0.50	1	10/29/2013 22:29

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-4	1310870-007B	Water	10/24/2013 14:30	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 22:29
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 22:29
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 22:29
Ethylbenzene	ND		0.50	1	10/29/2013 22:29
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 22:29
Freon 113	ND		0.50	1	10/29/2013 22:29
Hexachlorobutadiene	ND		0.50	1	10/29/2013 22:29
Hexachloroethane	ND		0.50	1	10/29/2013 22:29
2-Hexanone	ND		0.50	1	10/29/2013 22:29
Isopropylbenzene	<b>1.1</b>		0.50	1	10/29/2013 22:29
4-Isopropyl toluene	<b>0.60</b>		0.50	1	10/29/2013 22:29
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 22:29
Methylene chloride	ND		0.50	1	10/29/2013 22:29
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 22:29
Naphthalene	ND		0.50	1	10/29/2013 22:29
n-Propyl benzene	ND		0.50	1	10/29/2013 22:29
Styrene	ND		0.50	1	10/29/2013 22:29
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 22:29
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 22:29
Tetrachloroethene	ND		0.50	1	10/29/2013 22:29
Toluene	ND		0.50	1	10/29/2013 22:29
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 22:29
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 22:29
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 22:29
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 22:29
Trichloroethene	<b>1.7</b>		0.50	1	10/29/2013 22:29
Trichlorofluoromethane	ND		0.50	1	10/29/2013 22:29
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 22:29
1,2,4-Trimethylbenzene	ND		0.50	1	10/29/2013 22:29
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 22:29
Vinyl Chloride	ND		0.50	1	10/29/2013 22:29
Xylenes, Total	<b>0.53</b>		0.50	1	10/29/2013 22:29
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	107		70-130		10/29/2013 22:29
Toluene-d8	97		70-130		10/29/2013 22:29
4-BFB	96		70-130		10/29/2013 22:29

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-6	1310870-008B	Water	10/24/2013 15:30	GC18	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 15:08
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 15:08
Benzene	ND		0.50	1	10/29/2013 15:08
Bromobenzene	ND		0.50	1	10/29/2013 15:08
Bromoform	ND		0.50	1	10/29/2013 15:08
Bromochloromethane	ND		0.50	1	10/29/2013 15:08
Bromodichloromethane	ND		0.50	1	10/29/2013 15:08
Bromoform	ND		0.50	1	10/29/2013 15:08
Bromomethane	ND		0.50	1	10/29/2013 15:08
2-Butanone (MEK)	ND		2.0	1	10/29/2013 15:08
t-Butyl alcohol (TBA)	ND		2.0	1	10/29/2013 15:08
n-Butyl benzene	ND		0.50	1	10/29/2013 15:08
sec-Butyl benzene	ND		0.50	1	10/29/2013 15:08
tert-Butyl benzene	ND		0.50	1	10/29/2013 15:08
Carbon Disulfide	ND		0.50	1	10/29/2013 15:08
Carbon Tetrachloride	ND		0.50	1	10/29/2013 15:08
Chlorobenzene	ND		0.50	1	10/29/2013 15:08
Chloroethane	ND		0.50	1	10/29/2013 15:08
Chloroform	ND		0.50	1	10/29/2013 15:08
Chloromethane	ND		0.50	1	10/29/2013 15:08
2-Chlorotoluene	ND		0.50	1	10/29/2013 15:08
4-Chlorotoluene	ND		0.50	1	10/29/2013 15:08
Dibromochloromethane	ND		0.50	1	10/29/2013 15:08
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 15:08
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 15:08
Dibromomethane	ND		0.50	1	10/29/2013 15:08
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 15:08
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 15:08
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 15:08
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 15:08
1,1-Dichloroethane	0.77		0.50	1	10/29/2013 15:08
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 15:08
1,1-Dichloroethene	ND		0.50	1	10/29/2013 15:08
cis-1,2-Dichloroethene	0.73		0.50	1	10/29/2013 15:08
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 15:08
1,2-Dichloropropane	ND		0.50	1	10/29/2013 15:08
1,3-Dichloropropane	ND		0.50	1	10/29/2013 15:08
2,2-Dichloropropane	ND		0.50	1	10/29/2013 15:08
1,1-Dichloropropene	ND		0.50	1	10/29/2013 15:08

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-6	1310870-008B	Water	10/24/2013 15:30	GC18	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 15:08
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 15:08
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 15:08
Ethylbenzene	ND		0.50	1	10/29/2013 15:08
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 15:08
Freon 113	ND		0.50	1	10/29/2013 15:08
Hexachlorobutadiene	ND		0.50	1	10/29/2013 15:08
Hexachloroethane	ND		0.50	1	10/29/2013 15:08
2-Hexanone	ND		0.50	1	10/29/2013 15:08
Isopropylbenzene	ND		0.50	1	10/29/2013 15:08
4-Isopropyl toluene	ND		0.50	1	10/29/2013 15:08
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 15:08
Methylene chloride	ND		0.50	1	10/29/2013 15:08
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 15:08
Naphthalene	ND		0.50	1	10/29/2013 15:08
n-Propyl benzene	ND		0.50	1	10/29/2013 15:08
Styrene	ND		0.50	1	10/29/2013 15:08
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 15:08
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 15:08
Tetrachloroethene	1.3		0.50	1	10/29/2013 15:08
Toluene	ND		0.50	1	10/29/2013 15:08
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 15:08
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 15:08
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 15:08
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 15:08
Trichloroethene	2.5		0.50	1	10/29/2013 15:08
Trichlorofluoromethane	ND		0.50	1	10/29/2013 15:08
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 15:08
1,2,4-Trimethylbenzene	ND		0.50	1	10/29/2013 15:08
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 15:08
Vinyl Chloride	ND		0.50	1	10/29/2013 15:08
Xylenes, Total	ND		0.50	1	10/29/2013 15:08
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	102		70-130		10/29/2013 15:08
Toluene-d8	96		70-130		10/29/2013 15:08
4-BFB	97		70-130		10/29/2013 15:08

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-8	1310870-009B	Water	10/24/2013 16:25	GC18	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 15:47
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 15:47
Benzene	ND		0.50	1	10/29/2013 15:47
Bromobenzene	ND		0.50	1	10/29/2013 15:47
Bromoform	ND		0.50	1	10/29/2013 15:47
Bromochloromethane	ND		0.50	1	10/29/2013 15:47
Bromodichloromethane	ND		0.50	1	10/29/2013 15:47
Bromoform	ND		0.50	1	10/29/2013 15:47
Bromomethane	ND		0.50	1	10/29/2013 15:47
2-Butanone (MEK)	ND		2.0	1	10/29/2013 15:47
t-Butyl alcohol (TBA)	ND		2.0	1	10/29/2013 15:47
n-Butyl benzene	ND		0.50	1	10/29/2013 15:47
sec-Butyl benzene	<b>0.90</b>		0.50	1	10/29/2013 15:47
tert-Butyl benzene	ND		0.50	1	10/29/2013 15:47
Carbon Disulfide	ND		0.50	1	10/29/2013 15:47
Carbon Tetrachloride	ND		0.50	1	10/29/2013 15:47
Chlorobenzene	ND		0.50	1	10/29/2013 15:47
Chloroethane	ND		0.50	1	10/29/2013 15:47
Chloroform	ND		0.50	1	10/29/2013 15:47
Chloromethane	ND		0.50	1	10/29/2013 15:47
2-Chlorotoluene	ND		0.50	1	10/29/2013 15:47
4-Chlorotoluene	ND		0.50	1	10/29/2013 15:47
Dibromochloromethane	ND		0.50	1	10/29/2013 15:47
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 15:47
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 15:47
Dibromomethane	ND		0.50	1	10/29/2013 15:47
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 15:47
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 15:47
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 15:47
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 15:47
1,1-Dichloroethane	ND		0.50	1	10/29/2013 15:47
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 15:47
1,1-Dichloroethene	ND		0.50	1	10/29/2013 15:47
cis-1,2-Dichloroethene	ND		0.50	1	10/29/2013 15:47
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 15:47
1,2-Dichloropropane	ND		0.50	1	10/29/2013 15:47
1,3-Dichloropropane	ND		0.50	1	10/29/2013 15:47
2,2-Dichloropropane	ND		0.50	1	10/29/2013 15:47
1,1-Dichloropropene	ND		0.50	1	10/29/2013 15:47

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-8	1310870-009B	Water	10/24/2013 16:25	GC18	83357
<u>Analyses</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 15:47
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 15:47
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 15:47
Ethylbenzene	ND		0.50	1	10/29/2013 15:47
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 15:47
Freon 113	ND		0.50	1	10/29/2013 15:47
Hexachlorobutadiene	ND		0.50	1	10/29/2013 15:47
Hexachloroethane	ND		0.50	1	10/29/2013 15:47
2-Hexanone	ND		0.50	1	10/29/2013 15:47
Isopropylbenzene	ND		0.50	1	10/29/2013 15:47
4-Isopropyl toluene	ND		0.50	1	10/29/2013 15:47
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 15:47
Methylene chloride	ND		0.50	1	10/29/2013 15:47
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 15:47
Naphthalene	ND		0.50	1	10/29/2013 15:47
n-Propyl benzene	ND		0.50	1	10/29/2013 15:47
Styrene	ND		0.50	1	10/29/2013 15:47
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 15:47
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 15:47
Tetrachloroethene	ND		0.50	1	10/29/2013 15:47
Toluene	ND		0.50	1	10/29/2013 15:47
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 15:47
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 15:47
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 15:47
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 15:47
Trichloroethene	<b>0.67</b>		0.50	1	10/29/2013 15:47
Trichlorofluoromethane	ND		0.50	1	10/29/2013 15:47
1,2,3-Trichloropropane	<b>3.4</b>		0.50	1	10/29/2013 15:47
1,2,4-Trimethylbenzene	ND		0.50	1	10/29/2013 15:47
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 15:47
Vinyl Chloride	ND		0.50	1	10/29/2013 15:47
Xylenes, Total	ND		0.50	1	10/29/2013 15:47
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		10/29/2013 15:47
Toluene-d8	95		70-130		10/29/2013 15:47
4-BFB	99		70-130		10/29/2013 15:47

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-9	1310870-010B	Water	10/24/2013 17:30	GC28	83357
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/28/2013 17:48
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/28/2013 17:48
Benzene	<b>0.58</b>		0.50	1	10/28/2013 17:48
Bromobenzene	ND		0.50	1	10/28/2013 17:48
Bromoform	ND		0.50	1	10/28/2013 17:48
Bromomethane	ND		0.50	1	10/28/2013 17:48
2-Butanone (MEK)	ND		2.0	1	10/28/2013 17:48
t-Butyl alcohol (TBA)	ND		2.0	1	10/28/2013 17:48
n-Butyl benzene	ND		0.50	1	10/28/2013 17:48
sec-Butyl benzene	ND		0.50	1	10/28/2013 17:48
tert-Butyl benzene	ND		0.50	1	10/28/2013 17:48
Carbon Disulfide	ND		0.50	1	10/28/2013 17:48
Carbon Tetrachloride	ND		0.50	1	10/28/2013 17:48
Chlorobenzene	ND		0.50	1	10/28/2013 17:48
Chloroethane	ND		0.50	1	10/28/2013 17:48
Chloroform	ND		0.50	1	10/28/2013 17:48
Chloromethane	ND		0.50	1	10/28/2013 17:48
2-Chlorotoluene	ND		0.50	1	10/28/2013 17:48
4-Chlorotoluene	ND		0.50	1	10/28/2013 17:48
Dibromochloromethane	ND		0.50	1	10/28/2013 17:48
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/28/2013 17:48
1,2-Dibromoethane (EDB)	ND		0.50	1	10/28/2013 17:48
Dibromomethane	ND		0.50	1	10/28/2013 17:48
1,2-Dichlorobenzene	ND		0.50	1	10/28/2013 17:48
1,3-Dichlorobenzene	ND		0.50	1	10/28/2013 17:48
1,4-Dichlorobenzene	ND		0.50	1	10/28/2013 17:48
Dichlorodifluoromethane	ND		0.50	1	10/28/2013 17:48
1,1-Dichloroethane	ND		0.50	1	10/28/2013 17:48
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/28/2013 17:48
1,1-Dichloroethene	ND		0.50	1	10/28/2013 17:48
cis-1,2-Dichloroethene	<b>7.0</b>		0.50	1	10/28/2013 17:48
trans-1,2-Dichloroethene	ND		0.50	1	10/28/2013 17:48
1,2-Dichloropropane	ND		0.50	1	10/28/2013 17:48
1,3-Dichloropropane	ND		0.50	1	10/28/2013 17:48
2,2-Dichloropropane	ND		0.50	1	10/28/2013 17:48
1,1-Dichloropropene	ND		0.50	1	10/28/2013 17:48

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-9	1310870-010B	Water	10/24/2013 17:30	GC28	83357
<u>Analyses</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>		<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND	0.50	1		10/28/2013 17:48
trans-1,3-Dichloropropene	ND	0.50	1		10/28/2013 17:48
Diisopropyl ether (DIPE)	ND	0.50	1		10/28/2013 17:48
Ethylbenzene	ND	0.50	1		10/28/2013 17:48
Ethyl tert-butyl ether (ETBE)	ND	0.50	1		10/28/2013 17:48
Freon 113	ND	0.50	1		10/28/2013 17:48
Hexachlorobutadiene	ND	0.50	1		10/28/2013 17:48
Hexachloroethane	ND	0.50	1		10/28/2013 17:48
2-Hexanone	ND	0.50	1		10/28/2013 17:48
Isopropylbenzene	ND	0.50	1		10/28/2013 17:48
4-Isopropyl toluene	ND	0.50	1		10/28/2013 17:48
Methyl-t-butyl ether (MTBE)	ND	0.50	1		10/28/2013 17:48
Methylene chloride	ND	0.50	1		10/28/2013 17:48
4-Methyl-2-pentanone (MIBK)	ND	0.50	1		10/28/2013 17:48
Naphthalene	ND	0.50	1		10/28/2013 17:48
n-Propyl benzene	ND	0.50	1		10/28/2013 17:48
Styrene	ND	0.50	1		10/28/2013 17:48
1,1,1,2-Tetrachloroethane	ND	0.50	1		10/28/2013 17:48
1,1,2,2-Tetrachloroethane	ND	0.50	1		10/28/2013 17:48
Tetrachloroethene	ND	0.50	1		10/28/2013 17:48
Toluene	ND	0.50	1		10/28/2013 17:48
1,2,3-Trichlorobenzene	ND	0.50	1		10/28/2013 17:48
1,2,4-Trichlorobenzene	ND	0.50	1		10/28/2013 17:48
1,1,1-Trichloroethane	ND	0.50	1		10/28/2013 17:48
1,1,2-Trichloroethane	ND	0.50	1		10/28/2013 17:48
Trichloroethene	31	0.50	1		10/28/2013 17:48
Trichlorofluoromethane	ND	0.50	1		10/28/2013 17:48
1,2,3-Trichloropropane	ND	0.50	1		10/28/2013 17:48
1,2,4-Trimethylbenzene	ND	0.50	1		10/28/2013 17:48
1,3,5-Trimethylbenzene	ND	0.50	1		10/28/2013 17:48
Vinyl Chloride	ND	0.50	1		10/28/2013 17:48
Xylenes, Total	ND	0.50	1		10/28/2013 17:48
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>			
Dibromofluoromethane	107	70-130			10/28/2013 17:48
Toluene-d8	100	70-130			10/28/2013 17:48
4-BFB	95	70-130			10/28/2013 17:48

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-10	1310870-011B	Water	10/24/2013 11:55	GC28	83442
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 16:45
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 16:45
Benzene	<b>2.2</b>		0.50	1	10/29/2013 16:45
Bromobenzene	ND		0.50	1	10/29/2013 16:45
Bromoform	ND		0.50	1	10/29/2013 16:45
Bromochloromethane	ND		0.50	1	10/29/2013 16:45
Bromodichloromethane	ND		0.50	1	10/29/2013 16:45
Bromomethane	ND		0.50	1	10/29/2013 16:45
2-Butanone (MEK)	ND		2.0	1	10/29/2013 16:45
t-Butyl alcohol (TBA)	<b>2.3</b>		2.0	1	10/29/2013 16:45
n-Butyl benzene	ND		0.50	1	10/29/2013 16:45
sec-Butyl benzene	ND		0.50	1	10/29/2013 16:45
tert-Butyl benzene	ND		0.50	1	10/29/2013 16:45
Carbon Disulfide	ND		0.50	1	10/29/2013 16:45
Carbon Tetrachloride	ND		0.50	1	10/29/2013 16:45
Chlorobenzene	ND		0.50	1	10/29/2013 16:45
Chloroethane	ND		0.50	1	10/29/2013 16:45
Chloroform	ND		0.50	1	10/29/2013 16:45
Chloromethane	ND		0.50	1	10/29/2013 16:45
2-Chlorotoluene	ND		0.50	1	10/29/2013 16:45
4-Chlorotoluene	ND		0.50	1	10/29/2013 16:45
Dibromochloromethane	ND		0.50	1	10/29/2013 16:45
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 16:45
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 16:45
Dibromomethane	ND		0.50	1	10/29/2013 16:45
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 16:45
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 16:45
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 16:45
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 16:45
1,1-Dichloroethane	ND		0.50	1	10/29/2013 16:45
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 16:45
1,1-Dichloroethene	ND		0.50	1	10/29/2013 16:45
cis-1,2-Dichloroethene	<b>2.5</b>		0.50	1	10/29/2013 16:45
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 16:45
1,2-Dichloropropane	ND		0.50	1	10/29/2013 16:45
1,3-Dichloropropane	ND		0.50	1	10/29/2013 16:45
2,2-Dichloropropane	ND		0.50	1	10/29/2013 16:45
1,1-Dichloropropene	ND		0.50	1	10/29/2013 16:45

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-10	1310870-011B	Water	10/24/2013 11:55	GC28	83442
<u>Analyses</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 16:45
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 16:45
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 16:45
Ethylbenzene	ND		0.50	1	10/29/2013 16:45
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 16:45
Freon 113	ND		0.50	1	10/29/2013 16:45
Hexachlorobutadiene	ND		0.50	1	10/29/2013 16:45
Hexachloroethane	ND		0.50	1	10/29/2013 16:45
2-Hexanone	ND		0.50	1	10/29/2013 16:45
Isopropylbenzene	ND		0.50	1	10/29/2013 16:45
4-Isopropyl toluene	ND		0.50	1	10/29/2013 16:45
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 16:45
Methylene chloride	ND		0.50	1	10/29/2013 16:45
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 16:45
Naphthalene	ND		0.50	1	10/29/2013 16:45
n-Propyl benzene	ND		0.50	1	10/29/2013 16:45
Styrene	ND		0.50	1	10/29/2013 16:45
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 16:45
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 16:45
Tetrachloroethene	ND		0.50	1	10/29/2013 16:45
Toluene	ND		0.50	1	10/29/2013 16:45
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 16:45
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 16:45
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 16:45
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 16:45
Trichloroethene	<b>29</b>		0.50	1	10/29/2013 16:45
Trichlorofluoromethane	ND		0.50	1	10/29/2013 16:45
1,2,3-Trichloropropane	<b>0.63</b>		0.50	1	10/29/2013 16:45
1,2,4-Trimethylbenzene	ND		0.50	1	10/29/2013 16:45
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 16:45
Vinyl Chloride	ND		0.50	1	10/29/2013 16:45
Xylenes, Total	ND		0.50	1	10/29/2013 16:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	107		70-130		10/29/2013 16:45
Toluene-d8	74		70-130		10/29/2013 16:45
4-BFB	97		70-130		10/29/2013 16:45

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-11	1310870-012B	Water	10/24/2013 13:30	GC28	83442
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		10	1	10/29/2013 23:46
tert-Amyl methyl ether (TAME)	ND		0.50	1	10/29/2013 23:46
Benzene	<b>4.7</b>		0.50	1	10/29/2013 23:46
Bromobenzene	ND		0.50	1	10/29/2013 23:46
Bromoform	ND		0.50	1	10/29/2013 23:46
Bromomethane	ND		0.50	1	10/29/2013 23:46
2-Butanone (MEK)	ND		2.0	1	10/29/2013 23:46
t-Butyl alcohol (TBA)	<b>10</b>		2.0	1	10/29/2013 23:46
n-Butyl benzene	ND		0.50	1	10/29/2013 23:46
sec-Butyl benzene	<b>5.1</b>		0.50	1	10/29/2013 23:46
tert-Butyl benzene	ND		0.50	1	10/29/2013 23:46
Carbon Disulfide	ND		0.50	1	10/29/2013 23:46
Carbon Tetrachloride	ND		0.50	1	10/29/2013 23:46
Chlorobenzene	ND		0.50	1	10/29/2013 23:46
Chloroethane	ND		0.50	1	10/29/2013 23:46
Chloroform	ND		0.50	1	10/29/2013 23:46
Chloromethane	ND		0.50	1	10/29/2013 23:46
2-Chlorotoluene	ND		0.50	1	10/29/2013 23:46
4-Chlorotoluene	ND		0.50	1	10/29/2013 23:46
Dibromochloromethane	ND		0.50	1	10/29/2013 23:46
1,2-Dibromo-3-chloropropane	ND		0.20	1	10/29/2013 23:46
1,2-Dibromoethane (EDB)	ND		0.50	1	10/29/2013 23:46
Dibromomethane	ND		0.50	1	10/29/2013 23:46
1,2-Dichlorobenzene	ND		0.50	1	10/29/2013 23:46
1,3-Dichlorobenzene	ND		0.50	1	10/29/2013 23:46
1,4-Dichlorobenzene	ND		0.50	1	10/29/2013 23:46
Dichlorodifluoromethane	ND		0.50	1	10/29/2013 23:46
1,1-Dichloroethane	ND		0.50	1	10/29/2013 23:46
1,2-Dichloroethane (1,2-DCA)	ND		0.50	1	10/29/2013 23:46
1,1-Dichloroethene	ND		0.50	1	10/29/2013 23:46
cis-1,2-Dichloroethene	<b>0.73</b>		0.50	1	10/29/2013 23:46
trans-1,2-Dichloroethene	ND		0.50	1	10/29/2013 23:46
1,2-Dichloropropane	ND		0.50	1	10/29/2013 23:46
1,3-Dichloropropane	ND		0.50	1	10/29/2013 23:46
2,2-Dichloropropane	ND		0.50	1	10/29/2013 23:46
1,1-Dichloropropene	ND		0.50	1	10/29/2013 23:46

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## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/28/13-10/29/13

**WorkOrder:** 1310870  
**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
DPE-11	1310870-012B	Water	10/24/2013 13:30	GC28	83442
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.50	1	10/29/2013 23:46
trans-1,3-Dichloropropene	ND		0.50	1	10/29/2013 23:46
Diisopropyl ether (DIPE)	ND		0.50	1	10/29/2013 23:46
Ethylbenzene	2.9		0.50	1	10/29/2013 23:46
Ethyl tert-butyl ether (ETBE)	ND		0.50	1	10/29/2013 23:46
Freon 113	ND		0.50	1	10/29/2013 23:46
Hexachlorobutadiene	ND		0.50	1	10/29/2013 23:46
Hexachloroethane	ND		0.50	1	10/29/2013 23:46
2-Hexanone	ND		0.50	1	10/29/2013 23:46
Isopropylbenzene	3.6		0.50	1	10/29/2013 23:46
4-Isopropyl toluene	1.5		0.50	1	10/29/2013 23:46
Methyl-t-butyl ether (MTBE)	ND		0.50	1	10/29/2013 23:46
Methylene chloride	ND		0.50	1	10/29/2013 23:46
4-Methyl-2-pentanone (MIBK)	ND		0.50	1	10/29/2013 23:46
Naphthalene	ND		0.50	1	10/29/2013 23:46
n-Propyl benzene	1.9		0.50	1	10/29/2013 23:46
Styrene	ND		0.50	1	10/29/2013 23:46
1,1,1,2-Tetrachloroethane	ND		0.50	1	10/29/2013 23:46
1,1,2,2-Tetrachloroethane	ND		0.50	1	10/29/2013 23:46
Tetrachloroethene	ND		0.50	1	10/29/2013 23:46
Toluene	ND		0.50	1	10/29/2013 23:46
1,2,3-Trichlorobenzene	ND		0.50	1	10/29/2013 23:46
1,2,4-Trichlorobenzene	ND		0.50	1	10/29/2013 23:46
1,1,1-Trichloroethane	ND		0.50	1	10/29/2013 23:46
1,1,2-Trichloroethane	ND		0.50	1	10/29/2013 23:46
Trichloroethene	5.6		0.50	1	10/29/2013 23:46
Trichlorofluoromethane	ND		0.50	1	10/29/2013 23:46
1,2,3-Trichloropropane	ND		0.50	1	10/29/2013 23:46
1,2,4-Trimethylbenzene	1.5		0.50	1	10/29/2013 23:46
1,3,5-Trimethylbenzene	ND		0.50	1	10/29/2013 23:46
Vinyl Chloride	ND		0.50	1	10/29/2013 23:46
Xylenes, Total	0.80		0.50	1	10/29/2013 23:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	106		70-130		10/29/2013 23:46
Toluene-d8	96		70-130		10/29/2013 23:46
4-BFB	89		70-130		10/29/2013 23:46



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/29/13-10/31/13

**WorkOrder:** 1310870  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>MW-1</b>	<b>1310870-001A</b>	<b>Water</b>	<b>10/24/2013</b>	<b>GC3</b>	<b>83360</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	520		50	1	10/29/2013 04:01
MTBE	---		5.0	1	10/29/2013 04:01
Benzene	---		0.50	1	10/29/2013 04:01
Toluene	---		0.50	1	10/29/2013 04:01
Ethylbenzene	---		0.50	1	10/29/2013 04:01
Xylenes	---		0.50	1	10/29/2013 04:01
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	132	S	70-130		10/29/2013 04:01
<b>MW-2</b>	<b>1310870-002A</b>	<b>Water</b>	<b>10/24/2013 16:50</b>	<b>GC3</b>	<b>83443</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	480		50	1	10/30/2013 06:31
MTBE	---		15	1	10/30/2013 06:31
Benzene	---		0.50	1	10/30/2013 06:31
Toluene	---		0.50	1	10/30/2013 06:31
Ethylbenzene	---		0.50	1	10/30/2013 06:31
Xylenes	---		0.50	1	10/30/2013 06:31
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	161	S	70-130		10/30/2013 06:31
<b>MW-3</b>	<b>1310870-003A</b>	<b>Water</b>	<b>10/24/2013 14:05</b>	<b>GC3</b>	<b>83443</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	100		50	1	10/30/2013 07:00
MTBE	---		5.0	1	10/30/2013 07:00
Benzene	---		0.50	1	10/30/2013 07:00
Toluene	---		0.50	1	10/30/2013 07:00
Ethylbenzene	---		0.50	1	10/30/2013 07:00
Xylenes	---		0.50	1	10/30/2013 07:00
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	533	S	70-130		10/30/2013 07:00

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/29/13-10/31/13

**WorkOrder:** 1310870  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>MW-4</b>	<b>1310870-004A</b>	<b>Water</b>	<b>10/24/2013 10:14</b>	<b>GC3</b>	<b>83443</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		50	1	10/30/2013 05:33
MTBE	---		5.0	1	10/30/2013 05:33
Benzene	---		0.50	1	10/30/2013 05:33
Toluene	---		0.50	1	10/30/2013 05:33
Ethylbenzene	---		0.50	1	10/30/2013 05:33
Xylenes	---		0.50	1	10/30/2013 05:33
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: c4	
aaa-TFT	238	S	70-130		10/30/2013 05:33
<b>MW-5</b>	<b>1310870-005A</b>	<b>Water</b>	<b>10/24/2013 10:59</b>	<b>GC3</b>	<b>83443</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	130		50	1	10/30/2013 06:02
MTBE	---		5.0	1	10/30/2013 06:02
Benzene	---		0.50	1	10/30/2013 06:02
Toluene	---		0.50	1	10/30/2013 06:02
Ethylbenzene	---		0.50	1	10/30/2013 06:02
Xylenes	---		0.50	1	10/30/2013 06:02
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	230	S	70-130		10/30/2013 06:02
<b>DPE-1</b>	<b>1310870-006A</b>	<b>Water</b>	<b>10/24/2013 15:00</b>	<b>GC3</b>	<b>83443</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	610		50	1	10/30/2013 07:29
MTBE	---		5.0	1	10/30/2013 07:29
Benzene	---		0.50	1	10/30/2013 07:29
Toluene	---		0.50	1	10/30/2013 07:29
Ethylbenzene	---		0.50	1	10/30/2013 07:29
Xylenes	---		0.50	1	10/30/2013 07:29
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	145	S	70-130		10/30/2013 07:29

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/29/13-10/31/13

**WorkOrder:** 1310870  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** µg/L

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
DPE-4	1310870-007A	Water	10/24/2013 14:30	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	170		50	1	10/30/2013 20:30
MTBE	---		20	1	10/30/2013 20:30
Benzene	---		0.50	1	10/30/2013 20:30
Toluene	---		0.50	1	10/30/2013 20:30
Ethylbenzene	---		0.50	1	10/30/2013 20:30
Xylenes	---		0.50	1	10/30/2013 20:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	116		70-130		10/30/2013 20:30
DPE-6	1310870-008A	Water	10/24/2013 15:30	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		50	1	10/30/2013 21:00
MTBE	---		5.0	1	10/30/2013 21:00
Benzene	---		0.50	1	10/30/2013 21:00
Toluene	---		0.50	1	10/30/2013 21:00
Ethylbenzene	---		0.50	1	10/30/2013 21:00
Xylenes	---		0.50	1	10/30/2013 21:00
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
aaa-TFT	121		70-130		10/30/2013 21:00
DPE-8	1310870-009A	Water	10/24/2013 16:25	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	63		50	1	10/31/2013 20:34
MTBE	---		5.0	1	10/31/2013 20:34
Benzene	---		0.50	1	10/31/2013 20:34
Toluene	---		0.50	1	10/31/2013 20:34
Ethylbenzene	---		0.50	1	10/31/2013 20:34
Xylenes	---		0.50	1	10/31/2013 20:34
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: d1	
aaa-TFT	111		70-130		10/31/2013 20:34

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310870

**Project:** #298931; FSI

**Extraction Method** SW5030B

**Date Received:** 10/25/13 19:38

**Analytical Method:** SW8021B/8015Bm

**Date Prepared:** 10/29/13-10/31/13

**Unit:**  $\mu\text{g/L}$

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
DPE-9	1310870-010A	Water	10/24/2013 17:30	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	ND		50	1	10/30/2013 23:59
MTBE	---		5.0	1	10/30/2013 23:59
Benzene	---		0.50	1	10/30/2013 23:59
Toluene	---		0.50	1	10/30/2013 23:59
Ethylbenzene	---		0.50	1	10/30/2013 23:59
Xylenes	---		0.50	1	10/30/2013 23:59
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: c4	
aaa-TFT	308	S	70-130		10/30/2013 23:59
DPE-10	1310870-011A	Water	10/24/2013 11:55	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	97		50	1	10/31/2013 22:33
MTBE	---		5.0	1	10/31/2013 22:33
Benzene	---		0.50	1	10/31/2013 22:33
Toluene	---		0.50	1	10/31/2013 22:33
Ethylbenzene	---		0.50	1	10/31/2013 22:33
Xylenes	---		0.50	1	10/31/2013 22:33
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	249	S	70-130		10/31/2013 22:33
DPE-11	1310870-012A	Water	10/24/2013 13:30	GC3	83507
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH(g)	490		50	1	10/31/2013 01:56
MTBE	---		5.0	1	10/31/2013 01:56
Benzene	---		0.50	1	10/31/2013 01:56
Toluene	---		0.50	1	10/31/2013 01:56
Ethylbenzene	---		0.50	1	10/31/2013 01:56
Xylenes	---		0.50	1	10/31/2013 01:56
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: d1,c4	
aaa-TFT	154	S	70-130		10/31/2013 01:56



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/25/13-11/4/13

**WorkOrder:** 1310870  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>MW-1</b>	<b>1310870-001A</b>	<b>Water</b>	<b>10/24/2013</b>	<b>GC11A</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>230</b>		50	1	11/01/2013 21:19
TPH-Motor Oil (C18-C36)	ND		250	1	11/01/2013 21:19
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	105		70-130		11/01/2013 21:19
<b>MW-2</b>	<b>1310870-002A</b>	<b>Water</b>	<b>10/24/2013 16:50</b>	<b>GC6B</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>380</b>		50	1	11/01/2013 05:02
TPH-Motor Oil (C18-C36)	ND		250	1	11/01/2013 05:02
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	105		70-130		11/01/2013 05:02
<b>MW-3</b>	<b>1310870-003A</b>	<b>Water</b>	<b>10/24/2013 14:05</b>	<b>GC2A</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	<b>100</b>		50	1	11/04/2013 21:46
TPH-Motor Oil (C18-C36)	ND		250	1	11/04/2013 21:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	123		70-130		11/04/2013 21:46
<b>MW-4</b>	<b>1310870-004A</b>	<b>Water</b>	<b>10/24/2013 10:14</b>	<b>GC6B</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	11/01/2013 09:52
TPH-Motor Oil (C18-C36)	ND		250	1	11/01/2013 09:52
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		11/01/2013 09:52

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/25/13-11/4/13

**WorkOrder:** 1310870  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
<b>MW-5</b>	<b>1310870-005A</b>	<b>Water</b>	<b>10/24/2013 10:59</b>	<b>GC11A</b>	<b>83620</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	11/04/2013 13:46
TPH-Motor Oil (C18-C36)	ND		250	1	11/04/2013 13:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	99		70-130		11/04/2013 13:46
<b>DPE-1</b>	<b>1310870-006A</b>	<b>Water</b>	<b>10/24/2013 15:00</b>	<b>GC6B</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	530		50	1	11/01/2013 02:37
TPH-Motor Oil (C18-C36)	ND		250	1	11/01/2013 02:37
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	112		70-130		11/01/2013 02:37
<b>DPE-4</b>	<b>1310870-007A</b>	<b>Water</b>	<b>10/24/2013 14:30</b>	<b>GC2A</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	76		50	1	11/04/2013 19:14
TPH-Motor Oil (C18-C36)	ND		250	1	11/04/2013 19:14
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	113		70-130		11/04/2013 19:14
<b>DPE-6</b>	<b>1310870-008A</b>	<b>Water</b>	<b>10/24/2013 15:30</b>	<b>GC6B</b>	<b>83331</b>
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	11/01/2013 08:39
TPH-Motor Oil (C18-C36)	ND		250	1	11/01/2013 08:39
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	113		70-130		11/01/2013 08:39

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/25/13 19:38  
**Date Prepared:** 10/25/13-11/4/13

**WorkOrder:** 1310870  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L

### Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
DPE-8	1310870-009A	Water	10/24/2013 16:25	GC6A	83331
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	10/31/2013 21:46
TPH-Motor Oil (C18-C36)	ND		250	1	10/31/2013 21:46
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	95		70-130		10/31/2013 21:46
DPE-9	1310870-010A	Water	10/24/2013 17:30	GC6B	83331
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	ND		50	1	11/03/2013 06:30
TPH-Motor Oil (C18-C36)	ND		250	1	11/03/2013 06:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
C9	110		70-130		11/03/2013 06:30
DPE-10	1310870-011A	Water	10/24/2013 11:55	GC2A	83331
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	57		50	1	11/04/2013 20:30
TPH-Motor Oil (C18-C36)	ND		250	1	11/04/2013 20:30
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	91		70-130		11/04/2013 20:30
DPE-11	1310870-012A	Water	10/24/2013 13:30	GC2A	83331
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
TPH-Diesel (C10-C23)	340		50	1	11/04/2013 23:01
TPH-Motor Oil (C18-C36)	ND		250	1	11/04/2013 23:01
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: e4	
C9	93		70-130		11/04/2013 23:01



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/28/13  
**Date Analyzed:** 10/28/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83357  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83357  
1310862-001DMS/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	22.76	0.50	20	-	114	70-130
Benzene	ND	20.26	0.50	20	-	101	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	87.94	2.0	80	-	110	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	20.55	0.50	20	-	103	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	19.96	0.50	20	-	99.8	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	21.63	0.50	20	-	108	70-130
1,1-Dichloroethene	ND	17.02	0.50	20	-	85.1	70-130
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropene	ND	-	0.50	-	-	-	-
1,3-Dichloropropene	ND	-	0.50	-	-	-	-
2,2-Dichloropropene	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:** AEI Consultants  
**Date Prepared:** 10/28/13  
**Date Analyzed:** 10/28/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83357  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83357  
1310862-001DMS/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	22.15	0.50	20	-	111	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	23.02	0.50	20	-	115	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	22.03	0.50	20	-	110	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	20.06	0.50	20	-	100	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	23.08	0.50	20	-	115	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	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	26.28	26.81		25	105	107	70-130
Toluene-d8	24.86	24.29		25	99	97	70-130
4-BFB	2.37	2.233		2.5	95	89	70-130

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/28/13  
**Date Analyzed:** 10/28/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83357  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83357  
1310862-001DMS/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)	27.39	26.21	20	ND	137,F1	131,F1	70-130	4.39	20
Benzene	22.65	21.09	20	ND	113	105	70-130	7.14	20
t-Butyl alcohol (TBA)	119.4	116.8	80	ND	149,F1	146,F1	70-130	2.14	20
Chlorobenzene	23.97	22.54	20	ND	120	113	70-130	6.13	20
1,2-Dibromoethane (EDB)	24.56	23.15	20	ND	123	116	70-130	5.93	20
1,2-Dichloroethane (1,2-DCA)	25.81	24.22	20	ND	129	121	70-130	6.37	20
1,1-Dichloroethene	18.18	16.72	20	ND	90.9	83.6	70-130	8.35	20
Diisopropyl ether (DIPE)	25.68	23.97	20	ND	128	120	70-130	6.91	20
Ethyl tert-butyl ether (ETBE)	26.87	25.25	20	ND	134,F1	126	70-130	6.25	20
Methyl-t-butyl ether (MTBE)	26.8	25.26	20	ND	134,F1	126	70-130	5.93	20
Toluene	22.42	20.91	20	ND	112	105	70-130	6.95	20
Trichloroethylene	25.34	23.47	20	ND	127	117	70-130	7.68	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	26.99	26.69	25		108	107	70-130	1.10	20
Toluene-d8	24.16	24.25	25		97	97	70-130	0	20
4-BFB	2.233	2.21	2.5		89	88	70-130	1.04	20

(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310870
<b>Date Prepared:</b>	10/28/13	<b>BatchID:</b>	83360
<b>Date Analyzed:</b>	10/28/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC3	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83360 1310874-002AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	58.37	40	60	-	97.3	70-130
MTBE	ND	10.4	5.0	10	-	104	70-130
Benzene	ND	11.01	0.50	10	-	110	70-130
Toluene	ND	10.8	0.50	10	-	108	70-130
Ethylbenzene	ND	10.64	0.50	10	-	106	70-130
Xylenes	ND	32.18	0.50	30	-	107	70-130

**Surrogate Recovery**

aaa-TFT	10.3	10.57	10	103	106	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	61.07	59.79	60	ND	102	99.6	70-130	2.12	20
MTBE	10.48	10.61	10	ND	105	106	70-130	1.18	20
Benzene	10.59	10.89	10	ND	106	109	70-130	2.79	20
Toluene	10.54	10.79	10	ND	105	108	70-130	2.38	20
Ethylbenzene	10.39	10.62	10	ND	104	106	70-130	2.24	20
Xylenes	31.45	31.9	30	ND	105	106	70-130	1.42	20

**Surrogate Recovery**

aaa-TFT	9.962	10.44	10	100	104	70-130	4.65	20
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(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83442  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83442  
1310923-001AMS/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	21.38	0.50	20	-	107	70-130
Benzene	ND	19.12	0.50	20	-	95.6	70-130
Bromobenzene	ND	-	0.50	-	-	-	-
Bromoform	ND	-	0.50	-	-	-	-
Bromomethane	ND	-	0.50	-	-	-	-
Bromodichloromethane	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	2.0	-	-	-	-
t-Butyl alcohol (TBA)	ND	85.61	2.0	80	-	107	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	19.72	0.50	20	-	98.6	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	19.89	0.50	20	-	99.5	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	20.62	0.50	20	-	103	70-130
1,1-Dichloroethene	ND	18.86	0.50	20	-	94.3	70-130
cis-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.50	-	-	-	-
1,2-Dichloropropene	ND	-	0.50	-	-	-	-
1,3-Dichloropropene	ND	-	0.50	-	-	-	-
2,2-Dichloropropene	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:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC28  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83442  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83442  
1310923-001AMS/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	20.27	0.50	20	-	101	70-130
Ethylbenzene	ND	-	0.50	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	21.07	0.50	20	-	105	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	20.19	0.50	20	-	101	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	19.36	0.50	20	-	96.8	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	21.97	0.50	20	-	110	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	-	-	-	-
<b>Surrogate Recovery</b>							
Dibromofluoromethane	26.84	45.97		50	107	92	70-130
Toluene-d8	24.32	43.31		50	97	87	70-130
4-BFB	2.33	3.964		5	93	79	70-130

(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310870
<b>Date Prepared:</b>	10/29/13	<b>BatchID:</b>	83442
<b>Date Analyzed:</b>	10/29/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC28	<b>Analytical Method:</b>	SW8260B
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83442 1310923-001AMS/MSD

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### 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)	22.91	23.18	20	ND	115	116	70-130	1.17	20
Benzene	19.98	20.05	20	ND	99.9	100	70-130	0.327	20
t-Butyl alcohol (TBA)	96.24	97.05	80	ND	120	121	70-130	0.836	20
Chlorobenzene	20.18	20.73	20	ND	101	104	70-130	2.68	20
1,2-Dibromoethane (EDB)	20.7	21.15	20	ND	104	106	70-130	2.14	20
1,2-Dichloroethane (1,2-DCA)	21.82	22.38	20	ND	109	112	70-130	2.55	20
1,1-Dichloroethene	19.33	19.02	20	ND	96.7	95.1	70-130	1.65	20
Diisopropyl ether (DIPE)	21.58	21.81	20	ND	108	109	70-130	1.07	20
Ethyl tert-butyl ether (ETBE)	22.61	23.42	20	ND	113	117	70-130	3.51	20
Methyl-t-butyl ether (MTBE)	21.96	22.31	20	ND	110	112	70-130	1.55	20
Toluene	19.41	19.52	20	ND	97	97.6	70-130	0.555	20
Trichloroethylene	22.5	22.69	20	ND	113	113	70-130	0	20
<b>Surrogate Recovery</b>									
Dibromofluoromethane	47.96	48.6	50		96	97	70-130	1.32	20
Toluene-d8	43.12	44.06	50		86	88	70-130	2.16	20
4-BFB	3.903	4.037	5		78	81	70-130	3.39	20

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(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310870
<b>Date Prepared:</b>	10/29/13	<b>BatchID:</b>	83443
<b>Date Analyzed:</b>	10/29/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC3	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83443 1310943-001CMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	60.82	40	60	-	101	70-130
MTBE	ND	10.18	5.0	10	-	102	70-130
Benzene	ND	11.98	0.50	10	-	120	70-130
Toluene	ND	10.38	0.50	10	-	104	70-130
Ethylbenzene	ND	10.29	0.50	10	-	103	70-130
Xylenes	ND	31.23	0.50	30	-	104	70-130

**Surrogate Recovery**

aaa-TFT	10.23	10.03	10	102	100	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	59.66	62.24	60	ND	99.4	104	70-130	4.23	20
MTBE	10.4	10.52	10	ND	104	105	70-130	1.19	20
Benzene	10.35	10.51	10	ND	104	105	70-130	1.50	20
Toluene	10.3	10.41	10	ND	103	104	70-130	1.03	20
Ethylbenzene	10.18	10.34	10	ND	102	103	70-130	1.54	20
Xylenes	30.96	31.4	30	ND	103	105	70-130	1.40	20

**Surrogate Recovery**

aaa-TFT	9.934	9.909	10	99	99	70-130	0	20
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(Cont.)



## Quality Control Report

<b>Client:</b>	AEI Consultants	<b>WorkOrder:</b>	1310870
<b>Date Prepared:</b>	10/30/13	<b>BatchID:</b>	83507
<b>Date Analyzed:</b>	10/30/13	<b>Extraction Method</b>	SW5030B
<b>Instrument:</b>	GC3	<b>Analytical Method:</b>	SW8021B/8015Bm
<b>Matrix:</b>	Water	<b>Unit:</b>	µg/L
<b>Project:</b>	#298931; FSI	<b>Sample ID:</b>	MB/LCS-83507 1310870-008AMS/MSD

### QC SUMMARY REPORT FOR SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	64.03	40	60	-	107	70-130
MTBE	ND	11.27	5.0	10	-	113	70-130
Benzene	ND	10.69	0.50	10	-	107	70-130
Toluene	ND	10.76	0.50	10	-	108	70-130
Ethylbenzene	ND	10.52	0.50	10	-	105	70-130
Xylenes	ND	31.88	0.50	30	-	106	70-130

**Surrogate Recovery**

aaa-TFT	9.722	9.597	10	97	96	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	61.67	60.96	60	ND	103	102	70-130	1.17	20
MTBE	10.55	10.2	10	ND	106	102	70-130	3.39	20
Benzene	9.916	10.75	10	ND	99.2	107	70-130	8.02	20
Toluene	9.987	9.889	10	ND	99.9	98.9	70-130	0.990	20
Ethylbenzene	9.865	9.765	10	ND	98.6	97.7	70-130	1.01	20
Xylenes	29.88	29.67	30	ND	99.6	98.9	70-130	0.716	20

**Surrogate Recovery**

aaa-TFT	9.433	9.579	10	94	96	70-130	1.54	20
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## Quality Control Report

**Client:** AEI Consultants

**WorkOrder:** 1310870

**Date Prepared:** 10/25/13

**BatchID:** 83331

**Date Analyzed:** 10/30/13

**Extraction Method:** SW3510C/3630C

**Instrument:** GC6A

**Analytical Method:** SW8015B

**Matrix:** Water

**Unit:** µg/L

**Project:** #298931; FSI

**Sample ID:** MB/LCS-83331

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### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1070	50	1000	-	107	70-130
<b>Surrogate Recovery</b>							
C9	560.7	564		625	90	90	70-130

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(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

QA/QC Officer

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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 11/4/13  
**Date Analyzed:** 11/5/13  
**Instrument:** GC6A, GC6B  
**Matrix:** Water  
**Project:** #298931; FSI

**WorkOrder:** 1310870  
**BatchID:** 83620  
**Extraction Method:** SW3510C/3630C  
**Analytical Method:** SW8015B  
**Unit:** µg/L  
**Sample ID:** MB/LCS-83620

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### QC SUMMARY REPORT FOR SW8015B

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	1074	50	1000	-	107	70-130
<b>Surrogate Recovery</b>							
C9	564	650.6		625	90	104	70-130

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# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1310870

ClientCode: AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
cc:  
PO: #WC084429  
ProjectNo: #298931; FSI

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

Requested TAT: 5 days

Date Received: 10/25/2013

Date Printed: 10/25/2013

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
1310870-001	MW-1	Water	10/24/2013	<input type="checkbox"/>	B	A										
1310870-002	MW-2	Water	10/24/2013 16:50	<input type="checkbox"/>	B	A										
1310870-003	MW-3	Water	10/24/2013 14:05	<input type="checkbox"/>	B	A										
1310870-004	MW-4	Water	10/24/2013 10:14	<input type="checkbox"/>	B	A										
1310870-005	MW-5	Water	10/24/2013 10:59	<input type="checkbox"/>	B	A										
1310870-006	DPE-1	Water	10/24/2013 15:00	<input type="checkbox"/>	B	A										
1310870-007	DPE-4	Water	10/24/2013 14:30	<input type="checkbox"/>	B	A										
1310870-008	DPE-6	Water	10/24/2013 15:30	<input type="checkbox"/>	B	A										
1310870-009	DPE-8	Water	10/24/2013 16:25	<input type="checkbox"/>	B	A										
1310870-010	DPE-9	Water	10/24/2013 17:30	<input type="checkbox"/>	B	A										
1310870-011	DPE-10	Water	10/24/2013 11:55	<input type="checkbox"/>	B	A										
1310870-012	DPE-11	Water	10/24/2013 13:30	<input type="checkbox"/>	B	A										

Test Legend:

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

The following SamlIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A, 012A contain testgroup.

Prepared by: Daniel Loa

## Comments:

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.

1310870

## McCAMPBELL ANALYTICAL INC.

1538 Willow Pass Road, Pittsburg, CA 94565

Telephone: (925) 252-9262

Fax: (925) 252-9269

## CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

EDF Required?  Yes  No PDF Required?  Yes  No

Report To: Jeremy Smith		Bill To: AEI Consultants		Analysis Request										Other	Comments
Company: AEI Consultants, 2500 Camino Diablo, Walnut Creek, CA 94597															
PO# WC084429		Global ID: T0600100655													
Telephone: (925) 746-6000,		E-Mail: jasmith@aeiconsultatns.com													
AEI Project No. 298931		Project Name: FSI													
Project Location: 1630 Park St., Alameda, CA 94501															
Sampler Signature:															

SAMPLE ID	FIELD POINT NAME	SAMPLING		# of Containers	Type	MATRIX			METHOD PRESERVED			TPH-G (EPA 8015 M)	TPH-D / TPH-MO (EPA 8015 M w/ Silica Gel Clean-up)	VOCs (EPA 8260B)
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCL	HNO <sub>3</sub>	Other
MW-1		10/24/13	1534	4	VOAs	X					X X			X X X
MW-2			1050	4	VOAs	X					X X			X X X
MW-3			1405	4	VOAs	X					X X			X X X
MW-4			1014	4	VOAs	X					X X			X X X
MW-5			1059	4	VOAs	X					X X			X X X
DPE-1			1500	4	VOAs	X					X X			X X X
DPE-4			1430	4	VOAs	X					X X			X X X
DPE-6			1530	4	VOAs	X					X X			X X X
DPE-8			1625	4	VOAs	X					X X			X X X
DPE-9			1730	4	VOAs	X					X X			X X X
DPE-10			1155	4	VOAs	X					X X			X X X
DPE-11			1330 HST reng	4	VOAs	X					X X			X X X

Relinquished By: <i>Bob F...</i>	Date: 10/24/13	Time: 1430	Received By: <i>Bob F...</i>	ICE/t° 3.2	PRESERVATION	VOAS	O&G	METALS	OTHER
Relinquished By: <i>Bob F...</i>	Date: 10/25	Time: 1705	Received By: <i>Bob F...</i>	GOOD CONDITION HEAD SPACE ABSENT DECHLORINATED IN LAB	APPROPRIATE CONTAINERS PERSERVED IN LAB				
Relinquished By:	Date:	Time:	Received By:						



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/25/2013 7:38:08 PM**

Project Name: **#298931; FSI**

Login Reviewed by: **Daniel Loa**

WorkOrder N°: **1310870**

Matrix: Water

Carrier: Benjamin Yslas (MAI Courier)

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |                             |  |
|---|---|-----------------------------|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Container/Temp Blank temperature                    | Cooler Temp: 3.2°C                      |                             | NA <input type="checkbox"/>            |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>            |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

(Ice Type: WET ICE )

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

Comments:



# McCampbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1310829

**Amended:** 11/05/2013

**Report Created for:** AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597

**Project Contact:** Jeremy Smith

**Project P.O.:** #WC084430

**Project Name:** #298931; FSI

**Project Received:** 10/24/2013

Analytical Report reviewed & approved for release on 10/31/2013 by:

Question about  
your data?

[Click here to email](#)  
[McCAMPBELL](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory.  
The analytical results relate only to the items tested. Results reported conform to the most  
current NELAP standards, where applicable, unless otherwise stated in the case narrative.***



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NELAP: 12283CA ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3



## Glossary of Terms & Qualifier Definitions

**Client:** AEI Consultants

**Project:** #298931; FSI

**WorkOrder:** 1310829

### Glossary Abbreviation

<u>Glossary Abbreviation</u>	<u>Description</u>
95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	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
RPD	Relative Percent Deviation
SPK Val	Spike Value
SPKRef Val	Spike Reference Value

### Analytical Qualifier

j1 see attached narrative

### Quality Control Qualifier

F2 LCS recovery for this compound is outside of acceptance limits.



## Case Narrative

**Client:** AEI Consultants  
**Project:** #298931; FSI

**Work Order:** 1310829  
October 31, 2013

### TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.

SV-12 (1310829-007A)

Acrolein reporting limit was raised due to co-elution with non target peak interfering with quantitative value.



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** ASTM D 1946-90  
**Date Received:** 10/24/13 20:18      **Analytical Method:** ASTM D 1946-90  
**Date Prepared:** 10/29/13      **Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-3	1310829-001A	Soil Gas/DISS.	10/24/2013 11:41	GC26	83464

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.06	24.02
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.12	0.0063	1.3	10/29/2013 12:45

SV-4	1310829-002A	Soil Gas/DISS.	10/24/2013 12:03	GC26	83464
------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.61	25.13
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.032	0.0060	1.2	10/29/2013 13:00

SV-6	1310829-003A	Soil Gas/DISS.	10/24/2013 11:19	GC26	83464
------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

14.05	28.00
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.084	0.0050	1	10/29/2013 13:13

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** ASTM D 1946-90  
**Date Received:** 10/24/13 20:18      **Analytical Method:** ASTM D 1946-90  
**Date Prepared:** 10/29/13      **Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-7	1310829-004A	Soil Gas/DISS.	10/24/2013 10:28	GC26	83464

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.98	25.88
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.022	0.0066	1.3	10/29/2013 13:30

SV-8	1310829-005A	Soil Gas/DISS.	10/24/2013 09:06	GC26	83464
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**Initial Pressure (psia)**      **Final Pressure (psia)**

12.28	24.46
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Analytes	Result	RL	DF	Date Analyzed
Helium	0.12	0.0061	1.2	10/29/2013 13:43

SV-9	1310829-006A	Soil Gas/DISS.	10/24/2013 10:13	GC26	83464
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**Initial Pressure (psia)**      **Final Pressure (psia)**

13.78	27.46
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.019	0.0060	1.2	10/29/2013 13:56

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** ASTM D 1946-90  
**Date Received:** 10/24/13 20:18      **Analytical Method:** ASTM D 1946-90  
**Date Prepared:** 10/29/13      **Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-12	1310829-007A	Soil Gas/DISS.	10/24/2013 11:12	GC26	83464

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.69	27.28
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Analytes	Result	RL	DF	Date Analyzed
Helium	0.072	0.0050	1	10/29/2013 14:08

SV-13	1310829-008A	Soil Gas/DISS.	10/24/2013 13:15	GC26	83464
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**Initial Pressure (psia)**      **Final Pressure (psia)**

13.13	26.16
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.037	0.0050	1	10/29/2013 15:02

SV-14	1310829-009A	Soil Gas/DISS.	10/24/2013 14:19	GC26	83464
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**Initial Pressure (psia)**      **Final Pressure (psia)**

13.48	26.89
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.013	0.0050	1	10/29/2013 15:15

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** ASTM D 1946-90  
**Date Received:** 10/24/13 20:18      **Analytical Method:** ASTM D 1946-90  
**Date Prepared:** 10/29/13      **Unit:** %

### Helium

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-15	1310829-010A	Soil Gas/DISS.	10/24/2013 13:28	GC26	83464

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.21	24.33
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.038	0.0050	1	10/29/2013 15:29

SV-13 DUP	1310829-011A	Soil Gas/DISS.	10/24/2013 13:35	GC26	83464
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**Initial Pressure (psia)**      **Final Pressure (psia)**

12.93	25.76
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Helium	0.0091	0.0050	1	10/29/2013 15:44



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/29/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:**  $\mu\text{L/L}$

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-3	1310829-001A	Soil Gas/DISS.	10/24/2013 11:41	GC26	83465

**Initial Pressure (psia)**                    **Final Pressure (psia)**

12.06	24.02
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	2300	630	13	10/30/2013 11:22
Methane	ND	1.3	1.3	10/30/2013 16:59
Oxygen	160,000	13,000	3.1	10/30/2013 11:22

SV-4	1310829-002A	Soil Gas/DISS.	10/24/2013 12:03	GC26	83465
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**Initial Pressure (psia)**                    **Final Pressure (psia)**

12.61	25.13
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Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	2500	600	12	10/30/2013 11:45
Methane	ND	1.2	1.2	10/30/2013 17:25
Oxygen	160,000	12,000	3	10/30/2013 11:45

SV-6	1310829-003A	Soil Gas/DISS.	10/24/2013 11:19	GC26	83465
------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**                    **Final Pressure (psia)**

14.05	28.00
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	17,000	500	10	10/30/2013 12:10
Methane	ND	1.0	1	10/30/2013 17:50
Oxygen	150,000	10,000	2.5	10/30/2013 12:10

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/29/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:**  $\mu\text{L/L}$

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-7	1310829-004A	Soil Gas/DISS.	10/24/2013 10:28	GC26	83465

**Initial Pressure (psia)**                    **Final Pressure (psia)**

12.98	25.88
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	12,000	660	13	10/30/2013 12:33
Methane	ND	1.3	1.3	10/30/2013 18:14
Oxygen	160,000	13,000	3.3	10/30/2013 12:33

SV-8	1310829-005A	Soil Gas/DISS.	10/24/2013 09:06	GC26	83465
------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**                    **Final Pressure (psia)**

12.28	24.46
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	29,000	610	12	10/29/2013 20:50
Methane	ND	1.2	1.2	10/30/2013 18:41
Oxygen	130,000	12,000	3	10/29/2013 20:50

SV-9	1310829-006A	Soil Gas/DISS.	10/24/2013 10:13	GC26	83465
------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**                    **Final Pressure (psia)**

13.78	27.46
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	7300	600	12	10/29/2013 21:11
Methane	ND	1.2	1.2	10/30/2013 19:05
Oxygen	170,000	12,000	3	10/29/2013 21:11

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/29/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:**  $\mu\text{L/L}$

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-12	1310829-007A	Soil Gas/DISS.	10/24/2013 11:12	GC26	83465

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.69	27.28
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	29,000	500	10	10/29/2013 21:32
Methane	ND	1.0	1	10/30/2013 19:30
Oxygen	150,000	10,000	2.5	10/29/2013 21:32

SV-13	1310829-008A	Soil Gas/DISS.	10/24/2013 13:15	GC26	83465
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**Initial Pressure (psia)**      **Final Pressure (psia)**

13.13	26.16
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Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	18,000	500	10	10/29/2013 19:26
Methane	2.2	1.0	1	10/30/2013 15:15
Oxygen	150,000	10,000	2.5	10/29/2013 19:26

SV-14	1310829-009A	Soil Gas/DISS.	10/24/2013 14:19	GC26	83465
-------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.48	26.89
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	3000	500	10	10/29/2013 19:47
Methane	1.5	1.0	1	10/30/2013 15:41
Oxygen	150,000	10,000	2.5	10/29/2013 19:47

(Cont.)

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BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/29/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:**  $\mu\text{L/L}$

### Light Gases

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-15	1310829-010A	Soil Gas/DISS.	10/24/2013 13:28	GC26	83465

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.21	24.33
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	8500	500	10	10/29/2013 20:08
Methane	ND	1.0	1	10/30/2013 16:08
Oxygen	140,000	10,000	2.5	10/29/2013 20:08

SV-13 DUP	1310829-011A	Soil Gas/DISS.	10/24/2013 13:35	GC26	83465
-----------	--------------	----------------	------------------	------	-------

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.93	25.76
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Carbon Dioxide	18,000	500	10	10/29/2013 20:29
Methane	2.2	1.0	1	10/30/2013 16:34
Oxygen	140,000	10,000	2.5	10/29/2013 20:29



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-3	1310829-001A	Soil Gas	10/24/2013 11:41	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)				
12.06	24.02				
Analytes	Result	RL	DF	Date Analyzed	
Acetone	ND	60	1	10/26/2013 03:31	
Acrolein	ND	0.23	1	10/26/2013 03:31	
Acrylonitrile	ND	1.1	1	10/26/2013 03:31	
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 03:31	
Benzene	ND	1.6	1	10/26/2013 03:31	
Benzyl chloride	ND	2.6	1	10/26/2013 03:31	
Bromodichloromethane	ND	3.5	1	10/26/2013 03:31	
Bromoform	ND	5.2	1	10/26/2013 03:31	
Bromomethane	ND	2.0	1	10/26/2013 03:31	
1,3-Butadiene	ND	1.1	1	10/26/2013 03:31	
2-Butanone (MEK)	ND	75	1	10/26/2013 03:31	
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 03:31	
Carbon Disulfide	ND	1.6	1	10/26/2013 03:31	
Carbon Tetrachloride	ND	3.2	1	10/26/2013 03:31	
Chlorobenzene	ND	2.4	1	10/26/2013 03:31	
Chloroethane	ND	1.3	1	10/26/2013 03:31	
Chloroform	ND	2.4	1	10/26/2013 03:31	
Chloromethane	ND	1.0	1	10/26/2013 03:31	
Cyclohexane	ND	18	1	10/26/2013 03:31	
Dibromochloromethane	ND	4.4	1	10/26/2013 03:31	
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 03:31	
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 03:31	
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 03:31	
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 03:31	
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 03:31	
Dichlorodifluoromethane	<b>2.6</b>	2.5	1	10/26/2013 03:31	
1,1-Dichloroethane	ND	2.0	1	10/26/2013 03:31	
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 03:31	
1,1-Dichloroethene	ND	2.0	1	10/26/2013 03:31	
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 03:31	
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 03:31	
1,2-Dichloropropane	ND	2.4	1	10/26/2013 03:31	
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 03:31	
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 03:31	

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-3	1310829-001A	Soil Gas	10/24/2013 11:41	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)	Result	RL	DF	Date Analyzed
12.06	24.02				
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	1	10/26/2013 03:31
Diisopropyl ether (DIPE)	ND	2.1	1	1	10/26/2013 03:31
1,4-Dioxane	ND	1.8	1	1	10/26/2013 03:31
Ethanol	ND	96	1	1	10/26/2013 03:31
Ethyl acetate	ND	1.8	1	1	10/26/2013 03:31
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	1	10/26/2013 03:31
Ethylbenzene	ND	2.2	1	1	10/26/2013 03:31
4-Ethyltoluene	ND	2.5	1	1	10/26/2013 03:31
Freon 113	ND	3.9	1	1	10/26/2013 03:31
Heptane	ND	21	1	1	10/26/2013 03:31
Hexachlorobutadiene	ND	5.4	1	1	10/26/2013 03:31
Hexane	ND	18	1	1	10/26/2013 03:31
2-Hexanone	ND	2.1	1	1	10/26/2013 03:31
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	1	10/26/2013 03:31
Methyl-t-butyl ether (MTBE)	ND	1.8	1	1	10/26/2013 03:31
Methylene chloride	ND	1.8	1	1	10/26/2013 03:31
Methyl methacrylate	ND	0.42	1	1	10/26/2013 03:31
Naphthalene	ND	5.3	1	1	10/26/2013 03:31
Propene	ND	88	1	1	10/26/2013 03:31
Styrene	ND	2.2	1	1	10/26/2013 03:31
1,1,1,2-Tetrachloroethane	ND	3.5	1	1	10/26/2013 03:31
1,1,2,2-Tetrachloroethane	ND	3.5	1	1	10/26/2013 03:31
Tetrachloroethene	57	3.4	1	1	10/26/2013 03:31
Tetrahydrofuran	3.5	1.5	1	1	10/26/2013 03:31
Toluene	ND	1.9	1	1	10/26/2013 03:31
TPH(g)	ND	720	1	1	10/28/2013 21:12
1,2,4-Trichlorobenzene	ND	3.8	1	1	10/26/2013 03:31
1,1,1-Trichloroethane	ND	2.8	1	1	10/26/2013 03:31
1,1,2-Trichloroethane	ND	2.8	1	1	10/26/2013 03:31
Trichloroethene	ND	2.8	1	1	10/26/2013 03:31
Trichlorofluoromethane	ND	2.8	1	1	10/26/2013 03:31
1,2,4-Trimethylbenzene	ND	2.5	1	1	10/26/2013 03:31
1,3,5-Trimethylbenzene	ND	2.5	1	1	10/26/2013 03:31
Vinyl Acetate	ND	1.8	1	1	10/26/2013 03:31

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-3	1310829-001A	Soil Gas	10/24/2013 11:41	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.06	24.02
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 03:31
Xylenes, Total	ND	6.6	1	10/26/2013 03:31
Surrogates	REC (%)	Limits		
1,2-DCA-d4	89	70-130		10/26/2013 03:31
Toluene-d8	86	70-130		10/26/2013 03:31
4-BFB	86	70-130		10/26/2013 03:31

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-4	1310829-002A	Soil Gas	10/24/2013 12:03	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
12.61	25.13

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/26/2013 04:14
Acrolein	ND	0.23	1	10/26/2013 04:14
Acrylonitrile	ND	1.1	1	10/26/2013 04:14
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 04:14
Benzene	ND	1.6	1	10/26/2013 04:14
Benzyl chloride	ND	2.6	1	10/26/2013 04:14
Bromodichloromethane	ND	3.5	1	10/26/2013 04:14
Bromoform	ND	5.2	1	10/26/2013 04:14
Bromomethane	ND	2.0	1	10/26/2013 04:14
1,3-Butadiene	ND	1.1	1	10/26/2013 04:14
2-Butanone (MEK)	ND	75	1	10/26/2013 04:14
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 04:14
Carbon Disulfide	ND	1.6	1	10/26/2013 04:14
Carbon Tetrachloride	ND	3.2	1	10/26/2013 04:14
Chlorobenzene	ND	2.4	1	10/26/2013 04:14
Chloroethane	ND	1.3	1	10/26/2013 04:14
Chloroform	ND	2.4	1	10/26/2013 04:14
Chloromethane	ND	1.0	1	10/26/2013 04:14
Cyclohexane	ND	18	1	10/26/2013 04:14
Dibromochloromethane	ND	4.4	1	10/26/2013 04:14
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 04:14
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 04:14
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 04:14
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 04:14
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 04:14
Dichlorodifluoromethane	<b>2.5</b>	2.5	1	10/26/2013 04:14
1,1-Dichloroethane	ND	2.0	1	10/26/2013 04:14
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 04:14
1,1-Dichloroethene	ND	2.0	1	10/26/2013 04:14
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 04:14
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 04:14
1,2-Dichloropropane	ND	2.4	1	10/26/2013 04:14
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 04:14
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 04:14

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-4	1310829-002A	Soil Gas	10/24/2013 12:03	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)				
12.61	25.13				
Analytes	Result	RL	DF	Date Analyzed	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 04:14	
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 04:14	
1,4-Dioxane	ND	1.8	1	10/26/2013 04:14	
Ethanol	ND	96	1	10/26/2013 04:14	
Ethyl acetate	ND	1.8	1	10/26/2013 04:14	
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 04:14	
Ethylbenzene	ND	2.2	1	10/26/2013 04:14	
4-Ethyltoluene	ND	2.5	1	10/26/2013 04:14	
Freon 113	ND	3.9	1	10/26/2013 04:14	
Heptane	ND	21	1	10/26/2013 04:14	
Hexachlorobutadiene	ND	5.4	1	10/26/2013 04:14	
Hexane	ND	18	1	10/26/2013 04:14	
2-Hexanone	ND	2.1	1	10/26/2013 04:14	
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 04:14	
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 04:14	
Methylene chloride	ND	1.8	1	10/26/2013 04:14	
Methyl methacrylate	ND	0.42	1	10/26/2013 04:14	
Naphthalene	ND	5.3	1	10/26/2013 04:14	
Propene	ND	88	1	10/26/2013 04:14	
Styrene	ND	2.2	1	10/26/2013 04:14	
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 04:14	
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 04:14	
Tetrachloroethene	500	3.4	1	10/26/2013 04:14	
Tetrahydrofuran	2.1	1.5	1	10/26/2013 04:14	
Toluene	ND	1.9	1	10/26/2013 04:14	
TPH(g)	ND	720	1	10/28/2013 21:55	
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 04:14	
1,1,1-Trichloroethane	8.2	2.8	1	10/26/2013 04:14	
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 04:14	
Trichloroethene	ND	2.8	1	10/26/2013 04:14	
Trichlorofluoromethane	ND	2.8	1	10/26/2013 04:14	
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 04:14	
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 04:14	
Vinyl Acetate	ND	1.8	1	10/26/2013 04:14	

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-4	1310829-002A	Soil Gas	10/24/2013 12:03	GC24	83426

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.61	25.13
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 04:14
Xylenes, Total	ND	6.6	1	10/26/2013 04:14
Surrogates	REC (%)	Limits		
1,2-DCA-d4	90	70-130		10/26/2013 04:14
Toluene-d8	89	70-130		10/26/2013 04:14
4-BFB	87	70-130		10/26/2013 04:14

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-6	1310829-003A	Soil Gas	10/24/2013 11:19	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)	Result	RL	DF	Date Analyzed
14.05	28.00				
Acetone	ND	60	1		10/26/2013 04:58
Acrolein	ND	0.23	1		10/26/2013 04:58
Acrylonitrile	ND	1.1	1		10/26/2013 04:58
tert-Amyl methyl ether (TAME)	ND	2.1	1		10/26/2013 04:58
Benzene	ND	1.6	1		10/26/2013 04:58
Benzyl chloride	ND	2.6	1		10/26/2013 04:58
Bromodichloromethane	ND	3.5	1		10/26/2013 04:58
Bromoform	ND	5.2	1		10/26/2013 04:58
Bromomethane	ND	2.0	1		10/26/2013 04:58
1,3-Butadiene	ND	1.1	1		10/26/2013 04:58
2-Butanone (MEK)	ND	75	1		10/26/2013 04:58
t-Butyl alcohol (TBA)	ND	31	1		10/26/2013 04:58
Carbon Disulfide	ND	1.6	1		10/26/2013 04:58
Carbon Tetrachloride	ND	3.2	1		10/26/2013 04:58
Chlorobenzene	ND	2.4	1		10/26/2013 04:58
Chloroethane	ND	1.3	1		10/26/2013 04:58
Chloroform	ND	2.4	1		10/26/2013 04:58
Chloromethane	ND	1.0	1		10/26/2013 04:58
Cyclohexane	ND	18	1		10/26/2013 04:58
Dibromochloromethane	ND	4.4	1		10/26/2013 04:58
1,2-Dibromo-3-chloropropane	ND	0.12	1		10/26/2013 04:58
1,2-Dibromoethane (EDB)	ND	3.9	1		10/26/2013 04:58
1,2-Dichlorobenzene	ND	3.0	1		10/26/2013 04:58
1,3-Dichlorobenzene	ND	3.0	1		10/26/2013 04:58
1,4-Dichlorobenzene	ND	3.0	1		10/26/2013 04:58
Dichlorodifluoromethane	ND	2.5	1		10/26/2013 04:58
1,1-Dichloroethane	ND	2.0	1		10/26/2013 04:58
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1		10/26/2013 04:58
1,1-Dichloroethene	ND	2.0	1		10/26/2013 04:58
cis-1,2-Dichloroethene	ND	2.0	1		10/26/2013 04:58
trans-1,2-Dichloroethene	ND	2.0	1		10/26/2013 04:58
1,2-Dichloropropane	ND	2.4	1		10/26/2013 04:58
cis-1,3-Dichloropropene	ND	2.3	1		10/26/2013 04:58
trans-1,3-Dichloropropene	ND	2.3	1		10/26/2013 04:58

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-6	1310829-003A	Soil Gas	10/24/2013 11:19	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)				
14.05	28.00				
Analytes	Result	RL	DF	Date Analyzed	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 04:58	
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 04:58	
1,4-Dioxane	ND	1.8	1	10/26/2013 04:58	
Ethanol	ND	96	1	10/26/2013 04:58	
Ethyl acetate	<b>6.5</b>	1.8	1	10/26/2013 04:58	
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 04:58	
Ethylbenzene	ND	2.2	1	10/26/2013 04:58	
4-Ethyltoluene	ND	2.5	1	10/26/2013 04:58	
Freon 113	ND	3.9	1	10/26/2013 04:58	
Heptane	ND	21	1	10/26/2013 04:58	
Hexachlorobutadiene	ND	5.4	1	10/26/2013 04:58	
Hexane	ND	18	1	10/26/2013 04:58	
2-Hexanone	<b>6.5</b>	2.1	1	10/26/2013 04:58	
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 04:58	
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 04:58	
Methylene chloride	ND	1.8	1	10/26/2013 04:58	
Methyl methacrylate	ND	0.42	1	10/26/2013 04:58	
Naphthalene	ND	5.3	1	10/26/2013 04:58	
Propene	ND	88	1	10/26/2013 04:58	
Styrene	ND	2.2	1	10/26/2013 04:58	
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 04:58	
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 04:58	
Tetrachloroethene	<b>46</b>	3.4	1	10/26/2013 04:58	
Tetrahydrofuran	<b>5.3</b>	1.5	1	10/26/2013 04:58	
Toluene	ND	1.9	1	10/26/2013 04:58	
TPH(g)	<b>880</b>	720	1	10/28/2013 20:29	
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 04:58	
1,1,1-Trichloroethane	ND	2.8	1	10/26/2013 04:58	
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 04:58	
Trichloroethene	<b>29</b>	2.8	1	10/26/2013 04:58	
Trichlorofluoromethane	ND	2.8	1	10/26/2013 04:58	
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 04:58	
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 04:58	
Vinyl Acetate	ND	1.8	1	10/26/2013 04:58	

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-6	1310829-003A	Soil Gas	10/24/2013 11:19	GC24	83426

**Initial Pressure (psia)**      **Final Pressure (psia)**

14.05	28.00
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 04:58
Xylenes, Total	ND	6.6	1	10/26/2013 04:58
Surrogates	REC (%)	Limits		
1,2-DCA-d4	88	70-130		10/26/2013 04:58
Toluene-d8	87	70-130		10/26/2013 04:58
4-BFB	88	70-130		10/26/2013 04:58

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-7	1310829-004A	Soil Gas	10/24/2013 10:28	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
12.98	25.88

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/26/2013 05:41
Acrolein	ND	0.23	1	10/26/2013 05:41
Acrylonitrile	ND	1.1	1	10/26/2013 05:41
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 05:41
Benzene	ND	1.6	1	10/26/2013 05:41
Benzyl chloride	ND	2.6	1	10/26/2013 05:41
Bromodichloromethane	ND	3.5	1	10/26/2013 05:41
Bromoform	ND	5.2	1	10/26/2013 05:41
Bromomethane	ND	2.0	1	10/26/2013 05:41
1,3-Butadiene	ND	1.1	1	10/26/2013 05:41
2-Butanone (MEK)	ND	75	1	10/26/2013 05:41
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 05:41
Carbon Disulfide	ND	1.6	1	10/26/2013 05:41
Carbon Tetrachloride	ND	3.2	1	10/26/2013 05:41
Chlorobenzene	ND	2.4	1	10/26/2013 05:41
Chloroethane	ND	1.3	1	10/26/2013 05:41
Chloroform	ND	2.4	1	10/26/2013 05:41
Chloromethane	ND	1.0	1	10/26/2013 05:41
Cyclohexane	ND	18	1	10/26/2013 05:41
Dibromochloromethane	ND	4.4	1	10/26/2013 05:41
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 05:41
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 05:41
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 05:41
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 05:41
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 05:41
Dichlorodifluoromethane	ND	2.5	1	10/26/2013 05:41
1,1-Dichloroethane	ND	2.0	1	10/26/2013 05:41
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 05:41
1,1-Dichloroethene	ND	2.0	1	10/26/2013 05:41
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 05:41
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 05:41
1,2-Dichloropropane	ND	2.4	1	10/26/2013 05:41
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 05:41
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 05:41

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-7	1310829-004A	Soil Gas	10/24/2013 10:28	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
12.98	25.88

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 05:41
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 05:41
1,4-Dioxane	ND	1.8	1	10/26/2013 05:41
Ethanol	ND	96	1	10/26/2013 05:41
Ethyl acetate	<b>2.3</b>	1.8	1	10/26/2013 05:41
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 05:41
Ethylbenzene	ND	2.2	1	10/26/2013 05:41
4-Ethyltoluene	ND	2.5	1	10/26/2013 05:41
Freon 113	ND	3.9	1	10/26/2013 05:41
Heptane	ND	21	1	10/26/2013 05:41
Hexachlorobutadiene	ND	5.4	1	10/26/2013 05:41
Hexane	ND	18	1	10/26/2013 05:41
2-Hexanone	ND	2.1	1	10/26/2013 05:41
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 05:41
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 05:41
Methylene chloride	ND	1.8	1	10/26/2013 05:41
Methyl methacrylate	ND	0.42	1	10/26/2013 05:41
Naphthalene	ND	5.3	1	10/26/2013 05:41
Propene	ND	88	1	10/26/2013 05:41
Styrene	ND	2.2	1	10/26/2013 05:41
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 05:41
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 05:41
Tetrachloroethene	ND	3.4	1	10/26/2013 05:41
Tetrahydrofuran	<b>16</b>	1.5	1	10/26/2013 05:41
Toluene	ND	1.9	1	10/26/2013 05:41
TPH(g)	ND	720	1	10/28/2013 17:39
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 05:41
1,1,1-Trichloroethane	ND	2.8	1	10/26/2013 05:41
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 05:41
Trichloroethene	ND	2.8	1	10/26/2013 05:41
Trichlorofluoromethane	ND	2.8	1	10/26/2013 05:41
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 05:41
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 05:41
Vinyl Acetate	ND	1.8	1	10/26/2013 05:41

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-7	1310829-004A	Soil Gas	10/24/2013 10:28	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.98	25.88
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 05:41
Xylenes, Total	ND	6.6	1	10/26/2013 05:41
Surrogates	REC (%)	Limits		
1,2-DCA-d4	87	70-130		10/26/2013 05:41
Toluene-d8	86	70-130		10/26/2013 05:41
4-BFB	85	70-130		10/26/2013 05:41

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-8	1310829-005A	Soil Gas	10/24/2013 09:06	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
12.28	24.46

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/26/2013 06:25
Acrolein	ND	0.23	1	10/26/2013 06:25
Acrylonitrile	ND	1.1	1	10/26/2013 06:25
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 06:25
Benzene	ND	1.6	1	10/26/2013 06:25
Benzyl chloride	ND	2.6	1	10/26/2013 06:25
Bromodichloromethane	ND	3.5	1	10/26/2013 06:25
Bromoform	ND	5.2	1	10/26/2013 06:25
Bromomethane	ND	2.0	1	10/26/2013 06:25
1,3-Butadiene	ND	1.1	1	10/26/2013 06:25
2-Butanone (MEK)	ND	75	1	10/26/2013 06:25
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 06:25
Carbon Disulfide	ND	1.6	1	10/26/2013 06:25
Carbon Tetrachloride	ND	3.2	1	10/26/2013 06:25
Chlorobenzene	ND	2.4	1	10/26/2013 06:25
Chloroethane	ND	1.3	1	10/26/2013 06:25
Chloroform	ND	2.4	1	10/26/2013 06:25
Chloromethane	ND	1.0	1	10/26/2013 06:25
Cyclohexane	ND	18	1	10/26/2013 06:25
Dibromochloromethane	ND	4.4	1	10/26/2013 06:25
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 06:25
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 06:25
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 06:25
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 06:25
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 06:25
Dichlorodifluoromethane	ND	2.5	1	10/26/2013 06:25
1,1-Dichloroethane	ND	2.0	1	10/26/2013 06:25
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 06:25
1,1-Dichloroethene	ND	2.0	1	10/26/2013 06:25
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 06:25
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 06:25
1,2-Dichloropropane	ND	2.4	1	10/26/2013 06:25
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 06:25
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 06:25

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-8	1310829-005A	Soil Gas	10/24/2013 09:06	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
12.28	24.46

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 06:25
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 06:25
1,4-Dioxane	ND	1.8	1	10/26/2013 06:25
Ethanol	ND	96	1	10/26/2013 06:25
Ethyl acetate	ND	1.8	1	10/26/2013 06:25
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 06:25
Ethylbenzene	ND	2.2	1	10/26/2013 06:25
4-Ethyltoluene	ND	2.5	1	10/26/2013 06:25
Freon 113	ND	3.9	1	10/26/2013 06:25
Heptane	ND	21	1	10/26/2013 06:25
Hexachlorobutadiene	ND	5.4	1	10/26/2013 06:25
Hexane	ND	18	1	10/26/2013 06:25
2-Hexanone	ND	2.1	1	10/26/2013 06:25
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 06:25
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 06:25
Methylene chloride	ND	1.8	1	10/26/2013 06:25
Methyl methacrylate	ND	0.42	1	10/26/2013 06:25
Naphthalene	ND	5.3	1	10/26/2013 06:25
Propene	ND	88	1	10/26/2013 06:25
Styrene	ND	2.2	1	10/26/2013 06:25
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 06:25
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 06:25
Tetrachloroethene	5.2	3.4	1	10/26/2013 06:25
Tetrahydrofuran	ND	1.5	1	10/26/2013 06:25
Toluene	ND	1.9	1	10/26/2013 06:25
TPH(g)	ND	720	1	10/28/2013 18:20
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 06:25
1,1,1-Trichloroethane	ND	2.8	1	10/26/2013 06:25
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 06:25
Trichloroethene	ND	2.8	1	10/26/2013 06:25
Trichlorofluoromethane	ND	2.8	1	10/26/2013 06:25
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 06:25
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 06:25
Vinyl Acetate	ND	1.8	1	10/26/2013 06:25

(Cont.)



## Analytical Report

**Client:** AEI Consultants

**WorkOrder:** 1310829

**Project:** #298931; FSI

**Extraction Method** TO15

**Date Received:** 10/24/13 20:18

**Analytical Method:** TO15

**Date Prepared:** 10/26/13-10/30/13

**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-8	1310829-005A	Soil Gas	10/24/2013 09:06	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.28	24.46
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 06:25
Xylenes, Total	ND	6.6	1	10/26/2013 06:25
Surrogates	REC (%)	Limits		
1,2-DCA-d4	90	70-130		10/26/2013 06:25
Toluene-d8	88	70-130		10/26/2013 06:25
4-BFB	84	70-130		10/26/2013 06:25

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-9	1310829-006A	Soil Gas	10/24/2013 10:13	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)
13.78	27.46

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/26/2013 07:07
Acrolein	ND	0.23	1	10/26/2013 07:07
Acrylonitrile	ND	1.1	1	10/26/2013 07:07
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 07:07
Benzene	ND	1.6	1	10/26/2013 07:07
Benzyl chloride	ND	2.6	1	10/26/2013 07:07
Bromodichloromethane	ND	3.5	1	10/26/2013 07:07
Bromoform	ND	5.2	1	10/26/2013 07:07
Bromomethane	ND	2.0	1	10/26/2013 07:07
1,3-Butadiene	ND	1.1	1	10/26/2013 07:07
2-Butanone (MEK)	ND	75	1	10/26/2013 07:07
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 07:07
Carbon Disulfide	ND	1.6	1	10/26/2013 07:07
Carbon Tetrachloride	ND	3.2	1	10/26/2013 07:07
Chlorobenzene	ND	2.4	1	10/26/2013 07:07
Chloroethane	ND	1.3	1	10/26/2013 07:07
Chloroform	ND	2.4	1	10/26/2013 07:07
Chloromethane	ND	1.0	1	10/26/2013 07:07
Cyclohexane	ND	18	1	10/26/2013 07:07
Dibromochloromethane	ND	4.4	1	10/26/2013 07:07
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 07:07
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 07:07
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 07:07
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 07:07
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 07:07
Dichlorodifluoromethane	ND	2.5	1	10/26/2013 07:07
1,1-Dichloroethane	ND	2.0	1	10/26/2013 07:07
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 07:07
1,1-Dichloroethene	ND	2.0	1	10/26/2013 07:07
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 07:07
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 07:07
1,2-Dichloropropane	ND	2.4	1	10/26/2013 07:07
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 07:07
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 07:07

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-9	1310829-006A	Soil Gas	10/24/2013 10:13	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.78	27.46
-------	-------

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 07:07
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 07:07
1,4-Dioxane	ND	1.8	1	10/26/2013 07:07
Ethanol	ND	96	1	10/26/2013 07:07
Ethyl acetate	ND	1.8	1	10/26/2013 07:07
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 07:07
Ethylbenzene	ND	2.2	1	10/26/2013 07:07
4-Ethyltoluene	ND	2.5	1	10/26/2013 07:07
Freon 113	ND	3.9	1	10/26/2013 07:07
Heptane	ND	21	1	10/26/2013 07:07
Hexachlorobutadiene	ND	5.4	1	10/26/2013 07:07
Hexane	ND	18	1	10/26/2013 07:07
2-Hexanone	ND	2.1	1	10/26/2013 07:07
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 07:07
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 07:07
Methylene chloride	ND	1.8	1	10/26/2013 07:07
Methyl methacrylate	ND	0.42	1	10/26/2013 07:07
Naphthalene	ND	5.3	1	10/26/2013 07:07
Propene	ND	88	1	10/26/2013 07:07
Styrene	ND	2.2	1	10/26/2013 07:07
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 07:07
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 07:07
Tetrachloroethene	5.4	3.4	1	10/26/2013 07:07
Tetrahydrofuran	ND	1.5	1	10/26/2013 07:07
Toluene	ND	1.9	1	10/26/2013 07:07
TPH(g)	ND	720	1	10/28/2013 19:03
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 07:07
1,1,1-Trichloroethane	ND	2.8	1	10/26/2013 07:07
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 07:07
Trichloroethene	ND	2.8	1	10/26/2013 07:07
Trichlorofluoromethane	ND	2.8	1	10/26/2013 07:07
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 07:07
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 07:07
Vinyl Acetate	ND	1.8	1	10/26/2013 07:07

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-9	1310829-006A	Soil Gas	10/24/2013 10:13	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.78	27.46
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 07:07
Xylenes, Total	ND	6.6	1	10/26/2013 07:07
Surrogates	REC (%)	Limits		
1,2-DCA-d4	91	70-130		10/26/2013 07:07
Toluene-d8	88	70-130		10/26/2013 07:07
4-BFB	86	70-130		10/26/2013 07:07

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-12	1310829-007A	Soil Gas	10/24/2013 11:12	GC24	83426

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.69	27.28
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Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/26/2013 07:53
Acrolein	ND	3.0	1	10/26/2013 07:53
Acrylonitrile	ND	1.1	1	10/26/2013 07:53
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/26/2013 07:53
Benzene	ND	1.6	1	10/26/2013 07:53
Benzyl chloride	ND	2.6	1	10/26/2013 07:53
Bromodichloromethane	ND	3.5	1	10/26/2013 07:53
Bromoform	ND	5.2	1	10/26/2013 07:53
Bromomethane	ND	2.0	1	10/26/2013 07:53
1,3-Butadiene	ND	1.1	1	10/26/2013 07:53
2-Butanone (MEK)	ND	75	1	10/26/2013 07:53
t-Butyl alcohol (TBA)	ND	31	1	10/26/2013 07:53
Carbon Disulfide	<b>2.5</b>	1.6	1	10/26/2013 07:53
Carbon Tetrachloride	ND	3.2	1	10/26/2013 07:53
Chlorobenzene	ND	2.4	1	10/26/2013 07:53
Chloroethane	ND	1.3	1	10/26/2013 07:53
Chloroform	ND	2.4	1	10/26/2013 07:53
Chloromethane	ND	1.0	1	10/26/2013 07:53
Cyclohexane	ND	18	1	10/26/2013 07:53
Dibromochloromethane	ND	4.4	1	10/26/2013 07:53
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/26/2013 07:53
1,2-Dibromoethane (EDB)	ND	3.9	1	10/26/2013 07:53
1,2-Dichlorobenzene	ND	3.0	1	10/26/2013 07:53
1,3-Dichlorobenzene	ND	3.0	1	10/26/2013 07:53
1,4-Dichlorobenzene	ND	3.0	1	10/26/2013 07:53
Dichlorodifluoromethane	<b>2.5</b>	2.5	1	10/26/2013 07:53
1,1-Dichloroethane	ND	2.0	1	10/26/2013 07:53
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/26/2013 07:53
1,1-Dichloroethene	ND	2.0	1	10/26/2013 07:53
cis-1,2-Dichloroethene	ND	2.0	1	10/26/2013 07:53
trans-1,2-Dichloroethene	ND	2.0	1	10/26/2013 07:53
1,2-Dichloropropane	ND	2.4	1	10/26/2013 07:53
cis-1,3-Dichloropropene	ND	2.3	1	10/26/2013 07:53
trans-1,3-Dichloropropene	ND	2.3	1	10/26/2013 07:53

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-12	1310829-007A	Soil Gas	10/24/2013 11:12	GC24	83426

Initial Pressure (psia)	Final Pressure (psia)				
13.69	27.28				
Analytes	Result	RL	DF	Date Analyzed	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/26/2013 07:53	
Diisopropyl ether (DIPE)	ND	2.1	1	10/26/2013 07:53	
1,4-Dioxane	ND	1.8	1	10/26/2013 07:53	
Ethanol	ND	96	1	10/26/2013 07:53	
Ethyl acetate	ND	1.8	1	10/26/2013 07:53	
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/26/2013 07:53	
Ethylbenzene	ND	2.2	1	10/26/2013 07:53	
4-Ethyltoluene	ND	2.5	1	10/26/2013 07:53	
Freon 113	ND	3.9	1	10/26/2013 07:53	
Heptane	ND	21	1	10/26/2013 07:53	
Hexachlorobutadiene	ND	5.4	1	10/26/2013 07:53	
Hexane	ND	18	1	10/26/2013 07:53	
2-Hexanone	ND	2.1	1	10/26/2013 07:53	
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/26/2013 07:53	
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/26/2013 07:53	
Methylene chloride	ND	1.8	1	10/26/2013 07:53	
Methyl methacrylate	ND	0.42	1	10/26/2013 07:53	
Naphthalene	ND	5.3	1	10/26/2013 07:53	
Propene	ND	88	1	10/26/2013 07:53	
Styrene	ND	2.2	1	10/26/2013 07:53	
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/26/2013 07:53	
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/26/2013 07:53	
Tetrachloroethene	40	3.4	1	10/26/2013 07:53	
Tetrahydrofuran	ND	1.5	1	10/26/2013 07:53	
Toluene	ND	1.9	1	10/26/2013 07:53	
TPH(g)	ND	720	1	10/28/2013 19:46	
1,2,4-Trichlorobenzene	ND	3.8	1	10/26/2013 07:53	
1,1,1-Trichloroethane	ND	2.8	1	10/26/2013 07:53	
1,1,2-Trichloroethane	ND	2.8	1	10/26/2013 07:53	
Trichloroethene	ND	2.8	1	10/26/2013 07:53	
Trichlorofluoromethane	ND	2.8	1	10/26/2013 07:53	
1,2,4-Trimethylbenzene	ND	2.5	1	10/26/2013 07:53	
1,3,5-Trimethylbenzene	ND	2.5	1	10/26/2013 07:53	
Vinyl Acetate	ND	1.8	1	10/26/2013 07:53	

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-12	1310829-007A	Soil Gas	10/24/2013 11:12	GC24	83426

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.69	27.28
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/26/2013 07:53
Xylenes, Total	ND	6.6	1	10/26/2013 07:53
Surrogates	REC (%)	Limits	Analytical Comments: j1	
1,2-DCA-d4	89	70-130		
Toluene-d8	85	70-130		
4-BFB	85	70-130		

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13	1310829-008A	Soil Gas	10/24/2013 13:15	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.13	26.16
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Analytes	Result	RL	DF	Date Analyzed
Acetone	100	60	1	10/30/2013 20:44
Acrolein	ND	0.23	1	10/30/2013 20:44
Acrylonitrile	ND	1.1	1	10/30/2013 20:44
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/30/2013 20:44
Benzene	190	1.6	1	10/30/2013 20:44
Benzyl chloride	ND	2.6	1	10/30/2013 20:44
Bromodichloromethane	ND	3.5	1	10/30/2013 20:44
Bromoform	ND	5.2	1	10/30/2013 20:44
Bromomethane	9.5	2.0	1	10/30/2013 20:44
1,3-Butadiene	ND	1.1	1	10/30/2013 20:44
2-Butanone (MEK)	ND	75	1	10/30/2013 20:44
t-Butyl alcohol (TBA)	ND	31	1	10/30/2013 20:44
Carbon Disulfide	14	1.6	1	10/30/2013 20:44
Carbon Tetrachloride	ND	3.2	1	10/30/2013 20:44
Chlorobenzene	ND	2.4	1	10/30/2013 20:44
Chloroethane	ND	1.3	1	10/30/2013 20:44
Chloroform	ND	2.4	1	10/30/2013 20:44
Chloromethane	ND	1.0	1	10/30/2013 20:44
Cyclohexane	110	18	1	10/30/2013 20:44
Dibromochloromethane	ND	4.4	1	10/30/2013 20:44
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/30/2013 20:44
1,2-Dibromoethane (EDB)	ND	3.9	1	10/30/2013 20:44
1,2-Dichlorobenzene	ND	3.0	1	10/30/2013 20:44
1,3-Dichlorobenzene	ND	3.0	1	10/30/2013 20:44
1,4-Dichlorobenzene	ND	3.0	1	10/30/2013 20:44
Dichlorodifluoromethane	ND	2.5	1	10/30/2013 20:44
1,1-Dichloroethane	ND	2.0	1	10/30/2013 20:44
1,2-Dichloroethane (1,2-DCA)	4.0	2.0	1	10/30/2013 20:44
1,1-Dichloroethene	ND	2.0	1	10/30/2013 20:44
cis-1,2-Dichloroethene	ND	2.0	1	10/30/2013 20:44
trans-1,2-Dichloroethene	ND	2.0	1	10/30/2013 20:44
1,2-Dichloropropane	ND	2.4	1	10/30/2013 20:44
cis-1,3-Dichloropropene	ND	2.3	1	10/30/2013 20:44
trans-1,3-Dichloropropene	ND	2.3	1	10/30/2013 20:44

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13	1310829-008A	Soil Gas	10/24/2013 13:15	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.13	26.16
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Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/30/2013 20:44
Diisopropyl ether (DIPE)	ND	2.1	1	10/30/2013 20:44
1,4-Dioxane	ND	1.8	1	10/30/2013 20:44
Ethanol	ND	96	1	10/30/2013 20:44
Ethyl acetate	<b>4.2</b>	1.8	1	10/30/2013 20:44
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/30/2013 20:44
Ethylbenzene	<b>37</b>	2.2	1	10/30/2013 20:44
4-Ethyltoluene	<b>30</b>	2.5	1	10/30/2013 20:44
Freon 113	ND	3.9	1	10/30/2013 20:44
Heptane	<b>57</b>	21	1	10/30/2013 20:44
Hexachlorobutadiene	ND	5.4	1	10/30/2013 20:44
Hexane	<b>69</b>	18	1	10/30/2013 20:44
2-Hexanone	ND	2.1	1	10/30/2013 20:44
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/30/2013 20:44
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/30/2013 20:44
Methylene chloride	<b>3.5</b>	1.8	1	10/30/2013 20:44
Methyl methacrylate	ND	0.42	1	10/30/2013 20:44
Naphthalene	ND	5.3	1	10/30/2013 20:44
Propene	ND	88	1	10/30/2013 20:44
Styrene	ND	2.2	1	10/30/2013 20:44
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/30/2013 20:44
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/30/2013 20:44
Tetrachloroethene	<b>390</b>	3.4	1	10/30/2013 20:44
Tetrahydrofuran	ND	1.5	1	10/30/2013 20:44
Toluene	<b>220</b>	1.9	1	10/30/2013 20:44
TPH(g)	<b>9000</b>	720	1	10/29/2013 02:34
1,2,4-Trichlorobenzene	ND	3.8	1	10/30/2013 20:44
1,1,1-Trichloroethane	<b>4.2</b>	2.8	1	10/30/2013 20:44
1,1,2-Trichloroethane	ND	2.8	1	10/30/2013 20:44
Trichloroethene	<b>5.3</b>	2.8	1	10/30/2013 20:44
Trichlorofluoromethane	ND	2.8	1	10/30/2013 20:44
1,2,4-Trimethylbenzene	<b>87</b>	2.5	1	10/30/2013 20:44
1,3,5-Trimethylbenzene	<b>69</b>	2.5	1	10/30/2013 20:44
Vinyl Acetate	ND	1.8	1	10/30/2013 20:44

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13	1310829-008A	Soil Gas	10/24/2013 13:15	GC24	83427

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.13	26.16
-------	-------

Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/30/2013 20:44
Xylenes, Total	390	6.6	1	10/30/2013 20:44
Surrogates	REC (%)	Limits		
1,2-DCA-d4	94	70-130		10/30/2013 20:44
Toluene-d8	93	70-130		10/30/2013 20:44
4-BFB	91	70-130		10/30/2013 20:44

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-14	1310829-009A	Soil Gas	10/24/2013 14:19	GC24	83427

Initial Pressure (psia)	Final Pressure (psia)	Result	RL	DF	Date Analyzed
13.48	26.89				
Acetone	ND	60	1	1	10/30/2013 21:27
Acrolein	ND	0.23	1	1	10/30/2013 21:27
Acrylonitrile	ND	1.1	1	1	10/30/2013 21:27
tert-Amyl methyl ether (TAME)	ND	2.1	1	1	10/30/2013 21:27
Benzene	<b>30</b>	1.6	1	1	10/30/2013 21:27
Benzyl chloride	ND	2.6	1	1	10/30/2013 21:27
Bromodichloromethane	ND	3.5	1	1	10/30/2013 21:27
Bromoform	ND	5.2	1	1	10/30/2013 21:27
Bromomethane	ND	2.0	1	1	10/30/2013 21:27
1,3-Butadiene	ND	1.1	1	1	10/30/2013 21:27
2-Butanone (MEK)	ND	75	1	1	10/30/2013 21:27
t-Butyl alcohol (TBA)	ND	31	1	1	10/30/2013 21:27
Carbon Disulfide	<b>6.7</b>	1.6	1	1	10/30/2013 21:27
Carbon Tetrachloride	ND	3.2	1	1	10/30/2013 21:27
Chlorobenzene	ND	2.4	1	1	10/30/2013 21:27
Chloroethane	ND	1.3	1	1	10/30/2013 21:27
Chloroform	<b>3.9</b>	2.4	1	1	10/30/2013 21:27
Chloromethane	ND	1.0	1	1	10/30/2013 21:27
Cyclohexane	<b>93</b>	18	1	1	10/30/2013 21:27
Dibromochloromethane	ND	4.4	1	1	10/30/2013 21:27
1,2-Dibromo-3-chloropropane	ND	0.12	1	1	10/30/2013 21:27
1,2-Dibromoethane (EDB)	ND	3.9	1	1	10/30/2013 21:27
1,2-Dichlorobenzene	ND	3.0	1	1	10/30/2013 21:27
1,3-Dichlorobenzene	ND	3.0	1	1	10/30/2013 21:27
1,4-Dichlorobenzene	ND	3.0	1	1	10/30/2013 21:27
Dichlorodifluoromethane	ND	2.5	1	1	10/30/2013 21:27
1,1-Dichloroethane	ND	2.0	1	1	10/30/2013 21:27
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	1	10/30/2013 21:27
1,1-Dichloroethene	ND	2.0	1	1	10/30/2013 21:27
cis-1,2-Dichloroethene	ND	2.0	1	1	10/30/2013 21:27
trans-1,2-Dichloroethene	ND	2.0	1	1	10/30/2013 21:27
1,2-Dichloropropane	ND	2.4	1	1	10/30/2013 21:27
cis-1,3-Dichloropropene	ND	2.3	1	1	10/30/2013 21:27
trans-1,3-Dichloropropene	ND	2.3	1	1	10/30/2013 21:27

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-14	1310829-009A	Soil Gas	10/24/2013 14:19	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.48	26.89
-------	-------

Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/30/2013 21:27
Diisopropyl ether (DIPE)	ND	2.1	1	10/30/2013 21:27
1,4-Dioxane	ND	1.8	1	10/30/2013 21:27
Ethanol	ND	96	1	10/30/2013 21:27
Ethyl acetate	ND	1.8	1	10/30/2013 21:27
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/30/2013 21:27
Ethylbenzene	<b>9.9</b>	2.2	1	10/30/2013 21:27
4-Ethyltoluene	<b>9.0</b>	2.5	1	10/30/2013 21:27
Freon 113	ND	3.9	1	10/30/2013 21:27
Heptane	ND	21	1	10/30/2013 21:27
Hexachlorobutadiene	ND	5.4	1	10/30/2013 21:27
Hexane	<b>24</b>	18	1	10/30/2013 21:27
2-Hexanone	ND	2.1	1	10/30/2013 21:27
4-Methyl-2-pentanone (MIBK)	<b>4.8</b>	2.1	1	10/30/2013 21:27
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/30/2013 21:27
Methylene chloride	ND	1.8	1	10/30/2013 21:27
Methyl methacrylate	ND	0.42	1	10/30/2013 21:27
Naphthalene	ND	5.3	1	10/30/2013 21:27
Propene	ND	88	1	10/30/2013 21:27
Styrene	<b>3.9</b>	2.2	1	10/30/2013 21:27
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/30/2013 21:27
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/30/2013 21:27
Tetrachloroethene	<b>79</b>	3.4	1	10/30/2013 21:27
Tetrahydrofuran	ND	1.5	1	10/30/2013 21:27
Toluene	<b>38</b>	1.9	1	10/30/2013 21:27
TPH(g)	<b>2400</b>	720	1	10/29/2013 03:15
1,2,4-Trichlorobenzene	ND	3.8	1	10/30/2013 21:27
1,1,1-Trichloroethane	ND	2.8	1	10/30/2013 21:27
1,1,2-Trichloroethane	ND	2.8	1	10/30/2013 21:27
Trichloroethene	ND	2.8	1	10/30/2013 21:27
Trichlorofluoromethane	ND	2.8	1	10/30/2013 21:27
1,2,4-Trimethylbenzene	<b>4.9</b>	2.5	1	10/30/2013 21:27
1,3,5-Trimethylbenzene	<b>5.5</b>	2.5	1	10/30/2013 21:27
Vinyl Acetate	ND	1.8	1	10/30/2013 21:27

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-14	1310829-009A	Soil Gas	10/24/2013 14:19	GC24	83427

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.48	26.89
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/30/2013 21:27
Xylenes, Total	32	6.6	1	10/30/2013 21:27
Surrogates	REC (%)	Limits		
1,2-DCA-d4	96	70-130		10/30/2013 21:27
Toluene-d8	92	70-130		10/30/2013 21:27
4-BFB	94	70-130		10/30/2013 21:27

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-15	1310829-010A	Soil Gas	10/24/2013 13:28	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.21	24.33
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Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	60	1	10/30/2013 22:11
Acrolein	ND	0.23	1	10/30/2013 22:11
Acrylonitrile	ND	1.1	1	10/30/2013 22:11
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/30/2013 22:11
Benzene	<b>3.8</b>	1.6	1	10/30/2013 22:11
Benzyl chloride	ND	2.6	1	10/30/2013 22:11
Bromodichloromethane	ND	3.5	1	10/30/2013 22:11
Bromoform	ND	5.2	1	10/30/2013 22:11
Bromomethane	ND	2.0	1	10/30/2013 22:11
1,3-Butadiene	ND	1.1	1	10/30/2013 22:11
2-Butanone (MEK)	ND	75	1	10/30/2013 22:11
t-Butyl alcohol (TBA)	ND	31	1	10/30/2013 22:11
Carbon Disulfide	<b>2.3</b>	1.6	1	10/30/2013 22:11
Carbon Tetrachloride	ND	3.2	1	10/30/2013 22:11
Chlorobenzene	ND	2.4	1	10/30/2013 22:11
Chloroethane	ND	1.3	1	10/30/2013 22:11
Chloroform	ND	2.4	1	10/30/2013 22:11
Chloromethane	ND	1.0	1	10/30/2013 22:11
Cyclohexane	ND	18	1	10/30/2013 22:11
Dibromochloromethane	ND	4.4	1	10/30/2013 22:11
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/30/2013 22:11
1,2-Dibromoethane (EDB)	ND	3.9	1	10/30/2013 22:11
1,2-Dichlorobenzene	ND	3.0	1	10/30/2013 22:11
1,3-Dichlorobenzene	ND	3.0	1	10/30/2013 22:11
1,4-Dichlorobenzene	ND	3.0	1	10/30/2013 22:11
Dichlorodifluoromethane	<b>2.9</b>	2.5	1	10/30/2013 22:11
1,1-Dichloroethane	ND	2.0	1	10/30/2013 22:11
1,2-Dichloroethane (1,2-DCA)	ND	2.0	1	10/30/2013 22:11
1,1-Dichloroethene	ND	2.0	1	10/30/2013 22:11
cis-1,2-Dichloroethene	ND	2.0	1	10/30/2013 22:11
trans-1,2-Dichloroethene	ND	2.0	1	10/30/2013 22:11
1,2-Dichloropropane	ND	2.4	1	10/30/2013 22:11
cis-1,3-Dichloropropene	ND	2.3	1	10/30/2013 22:11
trans-1,3-Dichloropropene	ND	2.3	1	10/30/2013 22:11

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-15	1310829-010A	Soil Gas	10/24/2013 13:28	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

12.21	24.33
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Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/30/2013 22:11
Diisopropyl ether (DIPE)	ND	2.1	1	10/30/2013 22:11
1,4-Dioxane	ND	1.8	1	10/30/2013 22:11
Ethanol	ND	96	1	10/30/2013 22:11
Ethyl acetate	ND	1.8	1	10/30/2013 22:11
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/30/2013 22:11
Ethylbenzene	<b>2.4</b>	2.2	1	10/30/2013 22:11
4-Ethyltoluene	ND	2.5	1	10/30/2013 22:11
Freon 113	ND	3.9	1	10/30/2013 22:11
Heptane	ND	21	1	10/30/2013 22:11
Hexachlorobutadiene	ND	5.4	1	10/30/2013 22:11
Hexane	ND	18	1	10/30/2013 22:11
2-Hexanone	ND	2.1	1	10/30/2013 22:11
4-Methyl-2-pentanone (MIBK)	<b>3.1</b>	2.1	1	10/30/2013 22:11
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/30/2013 22:11
Methylene chloride	ND	1.8	1	10/30/2013 22:11
Methyl methacrylate	ND	0.42	1	10/30/2013 22:11
Naphthalene	ND	5.3	1	10/30/2013 22:11
Propene	ND	88	1	10/30/2013 22:11
Styrene	ND	2.2	1	10/30/2013 22:11
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/30/2013 22:11
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/30/2013 22:11
Tetrachloroethene	<b>75</b>	3.4	1	10/30/2013 22:11
Tetrahydrofuran	ND	1.5	1	10/30/2013 22:11
Toluene	<b>6.0</b>	1.9	1	10/30/2013 22:11
TPH(g)	ND	720	1	10/29/2013 03:58
1,2,4-Trichlorobenzene	ND	3.8	1	10/30/2013 22:11
1,1,1-Trichloroethane	ND	2.8	1	10/30/2013 22:11
1,1,2-Trichloroethane	ND	2.8	1	10/30/2013 22:11
Trichloroethene	ND	2.8	1	10/30/2013 22:11
Trichlorofluoromethane	ND	2.8	1	10/30/2013 22:11
1,2,4-Trimethylbenzene	<b>3.2</b>	2.5	1	10/30/2013 22:11
1,3,5-Trimethylbenzene	ND	2.5	1	10/30/2013 22:11
Vinyl Acetate	ND	1.8	1	10/30/2013 22:11

(Cont.)



## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-15	1310829-010A	Soil Gas	10/24/2013 13:28	GC24	83427

**Initial Pressure (psia)**      **Final Pressure (psia)**

12.21	24.33
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/30/2013 22:11
Xylenes, Total	10	6.6	1	10/30/2013 22:11
Surrogates	REC (%)	Limits		
1,2-DCA-d4	97	70-130		10/30/2013 22:11
Toluene-d8	93	70-130		10/30/2013 22:11
4-BFB	93	70-130		10/30/2013 22:11

(Cont.)

CDPH ELAP 1644 ♦ NELAP 12283CA

BB Analyst's Initial

 Angela Rydelius, Lab Manager



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13 DUP	1310829-011A	Soil Gas	10/24/2013 13:35	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.93	25.76
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Analytes	Result	RL	DF	Date Analyzed
Acetone	<b>82</b>	60	1	10/30/2013 22:54
Acrolein	ND	0.23	1	10/30/2013 22:54
Acrylonitrile	ND	1.1	1	10/30/2013 22:54
tert-Amyl methyl ether (TAME)	ND	2.1	1	10/30/2013 22:54
Benzene	<b>190</b>	1.6	1	10/30/2013 22:54
Benzyl chloride	ND	2.6	1	10/30/2013 22:54
Bromodichloromethane	ND	3.5	1	10/30/2013 22:54
Bromoform	ND	5.2	1	10/30/2013 22:54
Bromomethane	<b>10</b>	2.0	1	10/30/2013 22:54
1,3-Butadiene	ND	1.1	1	10/30/2013 22:54
2-Butanone (MEK)	ND	75	1	10/30/2013 22:54
t-Butyl alcohol (TBA)	ND	31	1	10/30/2013 22:54
Carbon Disulfide	<b>12</b>	1.6	1	10/30/2013 22:54
Carbon Tetrachloride	ND	3.2	1	10/30/2013 22:54
Chlorobenzene	ND	2.4	1	10/30/2013 22:54
Chloroethane	ND	1.3	1	10/30/2013 22:54
Chloroform	ND	2.4	1	10/30/2013 22:54
Chloromethane	ND	1.0	1	10/30/2013 22:54
Cyclohexane	<b>110</b>	18	1	10/30/2013 22:54
Dibromochloromethane	ND	4.4	1	10/30/2013 22:54
1,2-Dibromo-3-chloropropane	ND	0.12	1	10/30/2013 22:54
1,2-Dibromoethane (EDB)	ND	3.9	1	10/30/2013 22:54
1,2-Dichlorobenzene	ND	3.0	1	10/30/2013 22:54
1,3-Dichlorobenzene	ND	3.0	1	10/30/2013 22:54
1,4-Dichlorobenzene	ND	3.0	1	10/30/2013 22:54
Dichlorodifluoromethane	ND	2.5	1	10/30/2013 22:54
1,1-Dichloroethane	ND	2.0	1	10/30/2013 22:54
1,2-Dichloroethane (1,2-DCA)	<b>3.7</b>	2.0	1	10/30/2013 22:54
1,1-Dichloroethene	ND	2.0	1	10/30/2013 22:54
cis-1,2-Dichloroethene	ND	2.0	1	10/30/2013 22:54
trans-1,2-Dichloroethene	ND	2.0	1	10/30/2013 22:54
1,2-Dichloropropane	ND	2.4	1	10/30/2013 22:54
cis-1,3-Dichloropropene	ND	2.3	1	10/30/2013 22:54
trans-1,3-Dichloropropene	ND	2.3	1	10/30/2013 22:54

(Cont.)



## Analytical Report

**Client:** AEI Consultants  
**Project:** #298931; FSI  
**Date Received:** 10/24/13 20:18  
**Date Prepared:** 10/26/13-10/30/13

**WorkOrder:** 1310829  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13 DUP	1310829-011A	Soil Gas	10/24/2013 13:35	GC24	83427

#### Initial Pressure (psia)

#### Final Pressure (psia)

13.93	25.76
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Analytes	Result	RL	DF	Date Analyzed
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	1	10/30/2013 22:54
Diisopropyl ether (DIPE)	ND	2.1	1	10/30/2013 22:54
1,4-Dioxane	ND	1.8	1	10/30/2013 22:54
Ethanol	ND	96	1	10/30/2013 22:54
Ethyl acetate	<b>5.8</b>	1.8	1	10/30/2013 22:54
Ethyl tert-butyl ether (ETBE)	ND	2.1	1	10/30/2013 22:54
Ethylbenzene	<b>35</b>	2.2	1	10/30/2013 22:54
4-Ethyltoluene	<b>29</b>	2.5	1	10/30/2013 22:54
Freon 113	ND	3.9	1	10/30/2013 22:54
Heptane	<b>55</b>	21	1	10/30/2013 22:54
Hexachlorobutadiene	ND	5.4	1	10/30/2013 22:54
Hexane	<b>65</b>	18	1	10/30/2013 22:54
2-Hexanone	ND	2.1	1	10/30/2013 22:54
4-Methyl-2-pentanone (MIBK)	ND	2.1	1	10/30/2013 22:54
Methyl-t-butyl ether (MTBE)	ND	1.8	1	10/30/2013 22:54
Methylene chloride	<b>3.6</b>	1.8	1	10/30/2013 22:54
Methyl methacrylate	ND	0.42	1	10/30/2013 22:54
Naphthalene	ND	5.3	1	10/30/2013 22:54
Propene	ND	88	1	10/30/2013 22:54
Styrene	ND	2.2	1	10/30/2013 22:54
1,1,1,2-Tetrachloroethane	ND	3.5	1	10/30/2013 22:54
1,1,2,2-Tetrachloroethane	ND	3.5	1	10/30/2013 22:54
Tetrachloroethene	<b>360</b>	3.4	1	10/30/2013 22:54
Tetrahydrofuran	ND	1.5	1	10/30/2013 22:54
Toluene	<b>200</b>	1.9	1	10/30/2013 22:54
TPH(g)	<b>9300</b>	720	1	10/29/2013 04:42
1,2,4-Trichlorobenzene	ND	3.8	1	10/30/2013 22:54
1,1,1-Trichloroethane	<b>5.0</b>	2.8	1	10/30/2013 22:54
1,1,2-Trichloroethane	ND	2.8	1	10/30/2013 22:54
Trichloroethene	<b>5.3</b>	2.8	1	10/30/2013 22:54
Trichlorofluoromethane	ND	2.8	1	10/30/2013 22:54
1,2,4-Trimethylbenzene	<b>79</b>	2.5	1	10/30/2013 22:54
1,3,5-Trimethylbenzene	<b>66</b>	2.5	1	10/30/2013 22:54
Vinyl Acetate	ND	1.8	1	10/30/2013 22:54

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## Analytical Report

**Client:** AEI Consultants      **WorkOrder:** 1310829  
**Project:** #298931; FSI      **Extraction Method:** TO15  
**Date Received:** 10/24/13 20:18      **Analytical Method:** TO15  
**Date Prepared:** 10/26/13-10/30/13      **Unit:**  $\mu\text{g}/\text{m}^3$

### TPH gas + Volatile Organic Compounds in $\mu\text{g}/\text{m}^3$

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SV-13 DUP	1310829-011A	Soil Gas	10/24/2013 13:35	GC24	83427

**Initial Pressure (psia)**      **Final Pressure (psia)**

13.93	25.76
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Analytes	Result	RL	DF	Date Analyzed
Vinyl Chloride	ND	1.3	1	10/30/2013 22:54
Xylenes, Total	370	6.6	1	10/30/2013 22:54
Surrogates	REC (%)	Limits		
1,2-DCA-d4	101	70-130		10/30/2013 22:54
Toluene-d8	92	70-130		10/30/2013 22:54
4-BFB	92	70-130		10/30/2013 22:54



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC26  
**Matrix:** Soilgas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83464  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** %  
**Sample ID:** MB/LCS-83464

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### QC SUMMARY REPORT FOR ASTM D 1946-90

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Helium	ND	0.01165	0.0050	0.010	-	116	60-140

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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/29/13  
**Instrument:** GC26  
**Matrix:** SoilGas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83465  
**Extraction Method:** ASTM D 1946-90  
**Analytical Method:** ASTM D 1946-90  
**Unit:** uL/L  
**Sample ID:** MB/LCS-83465

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### QC SUMMARY REPORT FOR ASTM D 1946-90

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Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Carbon Dioxide	ND	105.6	50	100	-	106	70-130
Methane	ND	94.62	1.0	100	-	94.6	70-130
Oxygen	ND	2416	4000	2800	-	86.3	70-130

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## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/25/13  
**Date Analyzed:** 10/25/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83426  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83426

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	25	-	-	-	-
Acrylonitrile	ND	28.36	0.50	25	-	113	60-140
tert-Amyl methyl ether (TAME)	ND	28.17	0.50	25	-	113	60-140
Benzene	ND	26.68	0.50	25	-	107	60-140
Benzyl chloride	ND	27.26	0.50	25	-	109	60-140
Bromodichloromethane	ND	24.25	0.50	25	-	97	60-140
Bromoform	ND	28.04	0.50	25	-	112	60-140
Bromomethane	ND	-	0.50	-	-	-	-
1,3-Butadiene	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	25	-	-	-	-
t-Butyl alcohol (TBA)	ND	29.86	10	25	-	119	60-140
Carbon Disulfide	ND	27.06	0.50	25	-	108	60-140
Carbon Tetrachloride	ND	29.26	0.50	25	-	117	60-140
Chlorobenzene	ND	25.29	0.50	25	-	101	60-140
Chloroethane	ND	25.91	0.50	25	-	104	60-140
Chloroform	ND	22.31	0.50	25	-	89.3	60-140
Chloromethane	ND	25.2	0.50	25	-	101	60-140
Cyclohexane	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	31.68	0.50	25	-	127	60-140
1,2-Dibromo-3-chloropropane	ND	33.01	0.012	25	-	132	60-140
1,2-Dibromoethane (EDB)	ND	24.83	0.50	25	-	99.3	60-140
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	25.76	0.50	25	-	103	60-140
1,4-Dichlorobenzene	ND	22.42	0.50	25	-	89.7	60-140
Dichlorodifluoromethane	ND	24.55	0.50	25	-	98.2	60-140
1,1-Dichloroethane	ND	26	0.50	25	-	104	60-140
1,2-Dichloroethane (1,2-DCA)	ND	22.47	0.50	25	-	89.9	60-140
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	27.16	0.50	25	-	109	60-140
trans-1,2-Dichloroethene	ND	27.59	0.50	25	-	110	60-140
1,2-Dichloropropane	ND	22.6	0.50	25	-	90.4	60-140
cis-1,3-Dichloropropene	ND	29.55	0.50	25	-	118	60-140
trans-1,3-Dichloropropene	ND	27.35	0.50	25	-	109	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	24.09	0.50	25	-	96.3	60-140
Diisopropyl ether (DIPE)	ND	30.74	0.50	25	-	123	60-140
1,4-Dioxane	ND	25.98	0.50	25	-	104	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	27.05	0.50	25	-	108	60-140
Ethyl tert-butyl ether (ETBE)	ND	28.16	0.50	25	-	113	60-140
Ethylbenzene	ND	26.26	0.50	25	-	105	60-140

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/25/13  
**Date Analyzed:** 10/25/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83426  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83426

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
4-Ethyltoluene	ND	-	0.50	-	-	-	-
Freon 113	ND	25.53	0.50	25	-	102	60-140
Heptane	ND	-	5.0	-	-	-	-
Hexachlorobutadiene	ND	27.3	0.50	25	-	109	60-140
Hexane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	30.6	0.50	25	-	122	60-140
Methyl-t-butyl ether (MTBE)	ND	28.22	0.50	25	-	113	60-140
Methylene chloride	ND	23.24	0.50	25	-	93	60-140
Naphthalene	ND	53.21	1.0	50	-	106	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	27.27	0.50	25	-	109	60-140
1,1,1,2-Tetrachloroethane	ND	29.34	0.50	25	-	117	60-140
1,1,2,2-Tetrachloroethane	ND	21.51	0.50	25	-	86	60-140
Tetrachloroethene	ND	25.68	0.50	25	-	103	60-140
Tetrahydrofuran	ND	21.62	0.50	25	-	86.5	60-140
Toluene	ND	24.69	0.50	25	-	98.8	60-140
1,2,4-Trichlorobenzene	ND	27.18	0.50	25	-	109	60-140
1,1,1-Trichloroethane	ND	29.02	0.50	25	-	116	60-140
1,1,2-Trichloroethane	ND	23.41	0.50	25	-	93.6	60-140
Trichloroethene	ND	21.1	0.50	25	-	84.4	60-140
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	25.31	0.50	25	-	101	60-140
1,3,5-Trimethylbenzene	ND	25.54	0.50	25	-	102	60-140
Vinyl Acetate	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	20.04	0.50	25	-	80.2	60-140
Xylenes, Total	ND	78.26	1.5	75	-	104	60-140

#### Surrogate Recovery

1,2-DCA-d4	447.6	536.1	500	90	107	60-140
Toluene-d8	445.9	444.4	500	89	89	60-140
4-BFB	425.7	409	500	85	82	60-140

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/30/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83427  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83427

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	25	-	-	-	-
Acrylonitrile	ND	29.37	0.50	25	-	117	60-140
tert-Amyl methyl ether (TAME)	ND	29.42	0.50	25	-	118	60-140
Benzene	ND	28.34	0.50	25	-	113	60-140
Benzyl chloride	ND	30.26	0.50	25	-	121	60-140
Bromodichloromethane	ND	25.44	0.50	25	-	102	60-140
Bromoform	ND	28.66	0.50	25	-	115	60-140
Bromomethane	ND	-	0.50	-	-	-	-
1,3-Butadiene	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	25	-	-	-	-
t-Butyl alcohol (TBA)	ND	26.35	10	25	-	105	60-140
Carbon Disulfide	ND	28.09	0.50	25	-	112	60-140
Carbon Tetrachloride	ND	30.43	0.50	25	-	122	60-140
Chlorobenzene	ND	26	0.50	25	-	104	60-140
Chloroethane	ND	30.35	0.50	25	-	121	60-140
Chloroform	ND	23.44	0.50	25	-	93.8	60-140
Chloromethane	ND	29.53	0.50	25	-	118	60-140
Cyclohexane	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	32.41	0.50	25	-	130	60-140
1,2-Dibromo-3-chloropropane	ND	35.41	0.012	25	-	142, F2	60-140
1,2-Dibromoethane (EDB)	ND	25.63	0.50	25	-	103	60-140
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	27.45	0.50	25	-	110	60-140
1,4-Dichlorobenzene	ND	24.02	0.50	25	-	96.1	60-140
Dichlorodifluoromethane	ND	24.71	0.50	25	-	98.8	60-140
1,1-Dichloroethane	ND	27.52	0.50	25	-	110	60-140
1,2-Dichloroethane (1,2-DCA)	ND	23.69	0.50	25	-	94.8	60-140
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	27.76	0.50	25	-	111	60-140
trans-1,2-Dichloroethene	ND	28.23	0.50	25	-	113	60-140
1,2-Dichloropropane	ND	24.08	0.50	25	-	96.3	60-140
cis-1,3-Dichloropropene	ND	31.15	0.50	25	-	125	60-140
trans-1,3-Dichloropropene	ND	28.81	0.50	25	-	115	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	25.24	0.50	25	-	101	60-140
Diisopropyl ether (DIPE)	ND	36.44	0.50	25	-	146, F2	60-140
1,4-Dioxane	ND	27.17	0.50	25	-	109	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	29.18	0.50	25	-	117	60-140
Ethyl tert-butyl ether (ETBE)	ND	30.09	0.50	25	-	120	60-140
Ethylbenzene	ND	27.32	0.50	25	-	109	60-140

(Cont.)



## Quality Control Report

**Client:** AEI Consultants  
**Date Prepared:** 10/29/13  
**Date Analyzed:** 10/30/13  
**Instrument:** GC24  
**Matrix:** Soilgas  
**Project:** #298931; FSI

**WorkOrder:** 1310829  
**BatchID:** 83427  
**Extraction Method:** TO15  
**Analytical Method:** TO15  
**Unit:** nL/L  
**Sample ID:** MB/LCS-83427

### QC SUMMARY REPORT FOR TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
4-Ethyltoluene	ND	-	0.50	-	-	-	-
Freon 113	ND	25.71	0.50	25	-	103	60-140
Heptane	ND	-	5.0	-	-	-	-
Hexachlorobutadiene	ND	27.14	0.50	25	-	109	60-140
Hexane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	32.95	0.50	25	-	132	60-140
Methyl-t-butyl ether (MTBE)	ND	29.54	0.50	25	-	118	60-140
Methylene chloride	ND	23.6	0.50	25	-	94.4	60-140
Naphthalene	ND	55.35	1.0	50	-	111	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	28.67	0.50	25	-	115	60-140
1,1,1,2-Tetrachloroethane	ND	30.19	0.50	25	-	121	60-140
1,1,2,2-Tetrachloroethane	ND	23.13	0.50	25	-	92.5	60-140
Tetrachloroethene	ND	25.86	0.50	25	-	103	60-140
Tetrahydrofuran	ND	25.72	0.50	25	-	103	60-140
Toluene	ND	25.41	0.50	25	-	102	60-140
1,2,4-Trichlorobenzene	ND	28.31	0.50	25	-	113	60-140
1,1,1-Trichloroethane	ND	30.01	0.50	25	-	120	60-140
1,1,2-Trichloroethane	ND	24.29	0.50	25	-	97.2	60-140
Trichloroethene	ND	21.57	0.50	25	-	86.3	60-140
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	27.48	0.50	25	-	110	60-140
1,3,5-Trimethylbenzene	ND	27.29	0.50	25	-	109	60-140
Vinyl Acetate	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	20.02	0.50	25	-	80.1	60-140
Xylenes, Total	ND	81.79	1.5	75	-	109	60-140

#### Surrogate Recovery

1,2-DCA-d4	480.6	481.2	500	96	96	60-140
Toluene-d8	467.4	463.4	500	93	93	60-140
4-BFB	447.2	473	500	89	95	60-140



# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1310829

ClientCode: AEL

WaterTrax     WriteOn     EDF     Excel     EQuIS     Email     HardCopy     ThirdParty     J-flag

## Report to:

Jeremy Smith  
AEI Consultants  
2500 Camino Diablo, Ste.#200  
Walnut Creek, CA 94597  
(925) 283-6000 FAX: (925) 944-2895

Email: jasmith@aeiconsultants.com  
cc:  
PO: #WC084430  
ProjectNo: #298931; FSI

## Bill to:

Sara Guerin  
AEI Consultants  
2500 Camino Diablo, Ste. #200  
Walnut Creek, CA 94597  
AccountsPayable@AEIconsultants.co

Requested TAT: 5 days

Date Received: 10/24/2013

Date Printed: 10/25/2013

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
1310829-001	SV-3	Soil Gas	10/24/2013 11:41	<input type="checkbox"/>	A	A	A		A							
1310829-002	SV-4	Soil Gas	10/24/2013 12:03	<input type="checkbox"/>	A				A							
1310829-003	SV-6	Soil Gas	10/24/2013 11:19	<input type="checkbox"/>	A				A							
1310829-004	SV-7	Soil Gas	10/24/2013 10:28	<input type="checkbox"/>	A				A							
1310829-005	SV-8	Soil Gas	10/24/2013 9:06	<input type="checkbox"/>	A				A							
1310829-006	SV-9	Soil Gas	10/24/2013 10:13	<input type="checkbox"/>	A				A							
1310829-007	SV-12	Soil Gas	10/24/2013 11:12	<input type="checkbox"/>	A				A							
1310829-008	SV-13	Soil Gas	10/24/2013 13:15	<input type="checkbox"/>	A				A							
1310829-009	SV-14	Soil Gas	10/24/2013 14:19	<input type="checkbox"/>	A				A							
1310829-010	SV-15	Soil Gas	10/24/2013 13:28	<input type="checkbox"/>	A				A							
1310829-011	SV-13 DUP	Soil Gas	10/24/2013 13:35	<input type="checkbox"/>	A				A							
1310829-012	Unused Summa 1	Soil Gas	10/24/2013	<input type="checkbox"/>				A								
1310829-013	Unused Summa 2	Soil Gas	10/24/2013	<input type="checkbox"/>				A								
1310829-014	Unused Summa 3	Soil Gas	10/24/2013	<input type="checkbox"/>				A								

Test Legend:

1	LG_SUMMA_SOILGAS	2	PREDF REPORT	3	PRHELIUM SHROUD	4	PRUNUSEDSUMMA	5	5+GAS_Scan-SIM_SOIL(UG)
6		7		8		9		10	
11		12							

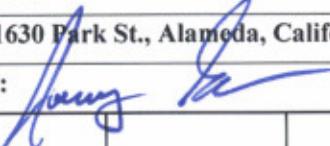
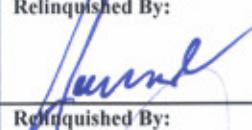
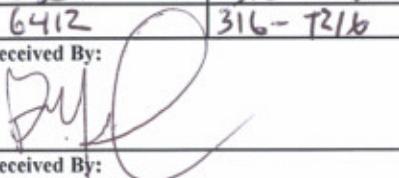
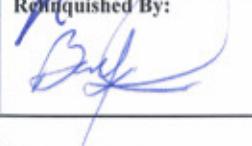
The following SamplIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A, 010A, 011A contain testgroup.

Prepared by: Jena Alfaro

## Comments:

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.

1310829

<b>McCAMPBELL ANALYTICAL INC.</b> 1534 Willow Pass Road Pittsburg, CA 94565-1701 <a href="mailto:www.main@mccampbell.com">www.main@mccampbell.com</a> Telephone: (925) 252-9262      Fax: (925) 252-9269				<b>CHAIN OF CUSTODY RECORD</b> <b>TURN AROUND TIME</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>RUSH</b> <b>24 HR</b> <b>48 HR</b> <b>72 HR</b> <b>5 DAY</b> <b>EDF Required?</b> <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes							
<b>Report To:</b> Jeremy Smith <b>Bill To:</b> PO# WC084430				<b>Lab Use Only</b>							
<b>Company:</b> AEI Consultants 2500 Camino Diablo, Walnut Creek, California 94597 <b>E-Mail:</b> jasmith@aeiconsultants.com				<b>Pressurized By</b>			<b>Date</b>	<b>Pressurization Gas</b>			
								<b>N2</b> <b>He</b>			
<b>Tele:</b> (925) 746-6000 <b>Fax:</b> (925) 746-6099											
<b>Project #:</b> 298931 <b>Project Name:</b> FSI											
<b>Project Location:</b> 1630 Park St., Alameda, California											
<b>Sampler Signature:</b> 				<b>Notes:</b> Helium leak check							
<b>Field Sample ID (Location)</b>	<b>Collection</b>		<b>Canister SN#</b>	<b>Sampler Kit SN#</b>	<b>Analysis Requested</b>	<b>Indoor Air</b>	<b>Soil Gas</b>	<b>Canister Pressure/Vacuum</b>			
	<b>Date</b>	<b>Time</b>						Initial	Final	Receipt	Final (psi)
SV-3	10-24 13	1141	6166	316T-994	TPH(g)/VOCs by TO-15, Fix Gas ASTM1946	X	-27	-4			
SV-4		1203	6306	316-728		X	-30	-5			
SV-6		1119	6168	316-718		X	-30	-5			
SV-7		1028	6169	316-667		X	-29.5	-5			
SV-8		906	6174	316-T999		X	-28	-5			
SV-9		1013	7531	316-771		X	-30	-5			
SV-12		1112	6203	316-1222		X	-29.5	-1			
SV-13		135	7519	316-1216		X	-30	-5			
SV-14		1419	05809	316-1217		X	-30	-5			
SV-15		1328	6307	316-1218		X	-30	-5			
SV-17-Dup		135	6412	316-T216		X	-30	-5			
<b>Relinquished By:</b> 	<b>Date:</b> 10-24	<b>Time:</b> 340	<b>Received By:</b> 								
<b>Relinquished By:</b> 	<b>Date:</b> 10-24	<b>Time:</b> 1420	<b>Received By:</b> 								
				Temp (°C): _____ Work Order #: _____ Condition: _____ Custody Seals Intact?: Yes _____ No _____ None _____ Shipped Via: _____							



## Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/24/2013 8:18:47 PM**

Project Name: **#298931; FSI**

Login Reviewed by: **Jena Alfaro**

WorkOrder N°: **1310829**

Matrix: **Soil Gas**

Carrier: **Benjamin Yslas (MAI Courier)**

### Chain of Custody (COC) Information

- |   |   |                             |
|---|---|-----------------------------|
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sample IDs noted by Client on COC?                      | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Date and Time of collection noted by Client on COC?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Sampler's name noted on COC?                            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

### Sample Receipt Information

- |  |   |                             |  |
|--|---|-----------------------------|--|
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/> |
| Shipping container/cooler in good condition?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Samples in proper containers/bottles?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sample containers intact?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| Sufficient sample volume for indicated test?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |

### Sample Preservation and Hold Time (HT) Information

- |   |   |  |  |
|---|---|--|--|
| All samples received within holding time?           | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| Container/Temp Blank temperature                    | Cooler Temp:                            |  | NA <input checked="" type="checkbox"/> |
| Water - VOA vials have zero headspace / no bubbles? | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |
| Sample labels checked for correct preservation?     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |  |
| Metal - pH acceptable upon receipt (pH<2)?          | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |
| Samples Received on Ice?                            | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |  |

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

=====

Comments: