



AEI Consultants

Environmental & Engineering Services

August 23, 2011

PHASE II SUBSURFACE INVESTIGATION REPORT

Property Identification:

1534 Park Street
Alameda, California 94501

AEI Project No. 299101

Prepared for:

EastWest Bank
900 Webster Street
Oakland, California 94607

Prepared by:

AEI Consultants
2500 Camino Diablo
Walnut Creek, CA 94597
(925) 746-6000

San Francisco HQ

Atlanta

Chicago

Costa Mesa

Dallas

Denver

Los Angeles

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New York

Phoenix

Portland

San Jose

National Presence
Regional Focus
Local Solutions



August 23, 2011

Ms. Jaiynne Ho
EastWest Bank
900 Webster Street
Oakland, California 94607

Subject: Phase II Subsurface Investigation

1534 Park Street
Alameda, CA 94501
AEI Project No. 299101

Dear Ms. Ho,

The following report describes the activities and results of the subsurface investigation performed by AEI Consultants (AEI) at the above referenced property (Figure 1: Site Location Map) on August 4, 2011. The investigation included the collection of soil samples from four (4) locations throughout the property. This investigation was performed in order to assess whether the property had been impacted as a result of the historic operations on site and if associated hazardous materials have affected the subject property subsurface.

I Site Description and Background

The subject property, which consists of a commercial building, is located on the west side of Park Street in a mixed commercial and residential area of Alameda, California. The property is improved with a one-story, three-unit building totaling approximately 6,812 square feet and occupying the entire parcel footprint. The building is constructed slab-on-grade. The subject property is currently a vacant unit (1534 Park Street). Tenants have included a dry cleaning operation (at least 1968-1999).

A Phase I Environmental Site Assessment (ESA) was performed by AEI on June 15, 2011. According to historical sources reviewed during the Phase I ESA, the subject property was listed on the Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG) database in relation to former occupancy by a dry cleaner, Bell Cleaners. A review of City of Alameda Community Development Department Building Division (CACDDBD) permits for the subject property indicates that the subject property was occupied by a dry cleaner in at least 1968, at which time the dry cleaner underwent remodeling activities. Documentation states that the dry cleaning equipment and associated piping, motors, and chemicals were removed from the subject property by Trans Tech Consultants in 1999. While the work plan included with Trans Tech Consultants' report indicates that two cuttings were to be made into the existing cement flooring at the subject property, and that up to six soil samples would be collected and analyzed for dry-cleaning solvents, AEI was not provided with a copy of the

analytical data or any report discussing the analytical data. Therefore, AEI was unaware of the quality of the subsurface at the subject property.

Dry cleaning operations typically use chlorinated solvents, particularly tetrachloroethylene (PCE), during the dry cleaning process. These solvents, even when properly stored and handled, can readily migrate into the subsurface as a result of small releases associated with onsite operations. Chlorinated solvents are highly mobile chemicals that can easily accumulate in soil and migrate to groundwater beneath a facility. Based on this information, in conjunction with the length of occupancy (at least 31 years), the former presence of a dry cleaning facility at the subject property represented evidence of a Recognized Environmental Condition (REC).

A Phase II Investigation was recommended by AEI to determine the subsurface impact, if any, resulting from the former dry cleaning operations in place at the subject property from at least 1968 until 1999.

II Geology and Hydrogeology

Based on a review of the United States Geological Survey (USGS) San Francisco Bay Quadrangle Geologic Map, the area surrounding the subject property is underlain by Holocene era saline marsh deposits which are commonly characterized by gray to grayish-black mud and silty mud with interbedded layers of silt, fine sand, peaty mud, and peat containing roots and sparse seeds of estuarine marsh plants.

Based upon topographic map interpretation, groundwater beneath the subject property is inferred to flow to the northeast. Based on groundwater monitoring data for the west adjacent site (1541 Park Street), groundwater was encountered at an estimated depth of seven to 11 feet below ground surface (bgs).

III Investigative Efforts

AEI performed a site inspection, marked the site, and notified Underground Service Alert North to identify public utilities in the work area more than two working days prior to commencement of drilling. All field activities were carried out under the direct supervision of a California Professional Geologist. Drilling permit #W2011-0390 was obtained from the Alameda County Department of Public Works. Encroachment permits #X1100662 & X1100663 and an obstruction permit were obtained from the City of Oakland.

Drilling and Soil Sample Collection

On August 4, 2011, AEI advanced a total of four (4) soil borings samples taken from four (4) locations (SB-1 through SB-4) at the property. Borings were advanced for the collection of soil and groundwater samples. Boring locations are shown on Figure 3: Site Plan. Soil borings were advanced with a track-mounted GeoProbe 6620 direct push drilling rig. Drilling was performed by RSI Drilling, a California C57 licensed drilling contractor (License # 802334).

The borings were advanced to a total depth of 16 feet bgs. The soil borings were continuously cored using a GeoProbe MacroCore[®] sampler which retained the soil cores in 1³/₄" diameter acrylic liners. The soil cores were examined and logged by the onsite AEI geologist. Soils were screened in the field with a portable photo-ionization detector (PID). In each of the borings,

soil samples were collected at approximately 2 to 4 foot intervals where a six-inch sample was cut from the liners. The selected samples were sealed with Teflon tape and plastic caps, labeled with a unique identifier, placed in a cooler filled with ice, and transported to an offsite laboratory. Soil descriptions, field observations and screening data is presented on the borings logs in Appendix A.

Boring Destruction

Upon completion of sampling and measurement activities, all sampling equipment was removed from the boreholes. Each boring was backfilled with neat cement grout to the existing grade.

Laboratory Analyses

Soil and groundwater samples were transported to McCampbell Analytical (Department of Health Services Certification #01644) under chain of custody protocol for analyses following current EPA analytical methodologies. Selected soil samples and all groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA method 8260B.

Analytical results and chain of custody documents are included as Appendix B.

IV Findings

Soils encountered during this investigation consisted of fine to medium grained poorly graded sand and sandy silt. Groundwater was encountered in all four borings at depths ranging from 11.79 below ground surface (bgs) in SB-1 to 13.15 bgs in SB-3.

Soil Sample Analytical Data

Tetrachloroethene (PCE) was reported above the laboratory reporting limit in all four soil borings (SB-1 through SB-4) at concentrations of 0.10 mg/kg, 5.5 mg/kg, 0.23 mg/kg and 0.50 mg/kg, respectively. 1,2,4-Trimethylbenzene was reported at a concentration of 0.023 mg/kg in SB-3 but was reported as not detectable above a reporting limit of 0.005 mg/kg in soil borings SB-1, SB-2 and SB-4.

All other VOCs were not reported above the respective laboratory reporting limit.

Groundwater Sample Analytical Data

PCE was reported above the laboratory reporting limit in groundwater from soil borings SB-1 through SB-4 at concentrations of 8.2 µg/L, 15 µg/L, 16 µg/L and 12 µg/L, respectively.

t-Butyl Alcohol (TBA) was reported in SB-1 through SB-4 at concentrations of 10 µg/L, 3.8 µg/L, 2.2 µg/L and 4.1 µg/L, respectively.

All other VOCs were below the laboratory reporting limits for all four groundwater samples analyzed.

Soil and groundwater sample analytical data is presented in Tables 1 and 2, respectively.

V Summary and Conclusions

The scope of the investigation was requested by the client to evaluate whether the property had been significantly impacted by dry cleaning operations historically conducted onsite. Soil samples were collected from a total of four (4) soil borings advanced throughout the property.

Concentrations of PCE were detected in soil samples from all four borings SB-1 through SB-4 at concentrations ranging from 0.10 mg/kg to 5.5 mg/kg. Due to the presence of PCE in shallow soil samples there appears to have been a release originating from the subject site. Groundwater samples SB-1-W through SB-4-W contained concentrations of PCE exceeding the ESLs of 5.0 µg/L at concentrations ranging from 8.2 µg/L to 16 µg/L.

For comparison, the concentrations of PCE detected are compared in Tables 1 and 2 with the Regional Water Quality Control Board (RWQCB) Environmental Screening Levels¹ (ESLs). Although the ESLs are not statutory cleanup goals, they are risk-based values that have been prepared to evaluate whether a particular chemical presents an environmental risk.

Based on analytical results of the soil and groundwater samples collected from the subject property, AEI recommends the property owner pursue further characterization of the release. AEI recommends the responsible party perform a soil vapor survey under the building of the subject property to determine whether the potential for vapor intrusion exists, which could create a significant health hazard for the occupants of the building.

This constitutes an unauthorized release, which under state law is required to be reported to the appropriate regulatory agency. AEI recommends submitting this report to the Alameda County Environmental Health (ACEH) which may require further investigation to characterize the release

VI Report Limitation

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples were chosen to provide the requested information, but it cannot be assumed that they are representative of areas not sampled. In addition, AEI has relied on information provided by others, which is assumed to be correct, however, AEI cannot assume any responsibility for its correctness or accuracy. All conclusions and/or recommendations are based on these analyses, observations, provided information, and the governing regulations at the time of the assessment. Conclusions beyond those stated and reported herein should not be inferred from this document.

¹ *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, Residential Land Use, Regional Water Quality Control Board (RWQCB), May 2008

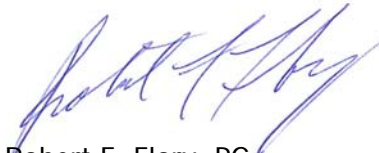
These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (925) 746-6000.

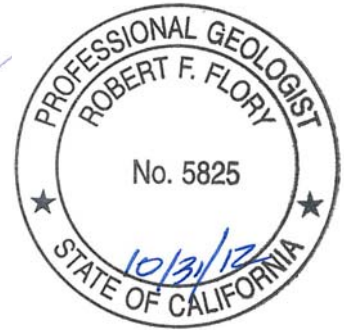
Sincerely,
AEI Consultants



Harmony TomSun
Project Geologist



Robert F. Flory, PG
Senior Project Geologist



Figures

- Figure 1: Site Location Map
- Figure 2: Site Map
- Figure 3: Site Plan

Tables

- Table 1: Soil Sample Analytical Data
- Table 2: Groundwater Sample Analytical Data

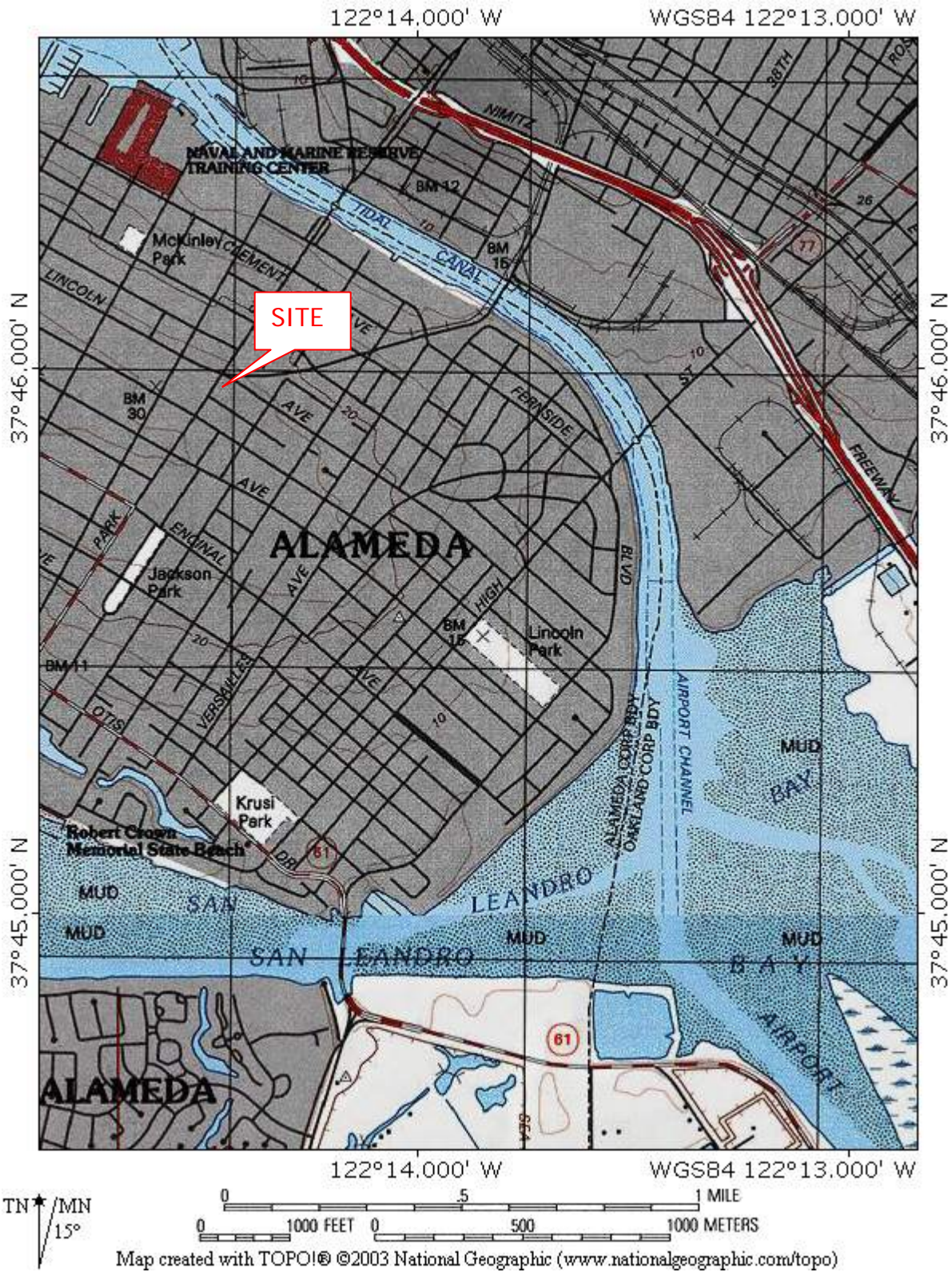
Appendix A

- Soil Boring Logs

Appendix B

- Sample Analytical Documentation with Chain of Custody

FIGURES



SITE LOCATION MAP

1534 Park Street, Alameda, California 94501



AEI
Consultants

FIGURE 1

Project Number: 299101



SITE MAP

1534 PARK STREET, ALAMEDA, CALIFORNIA 94501



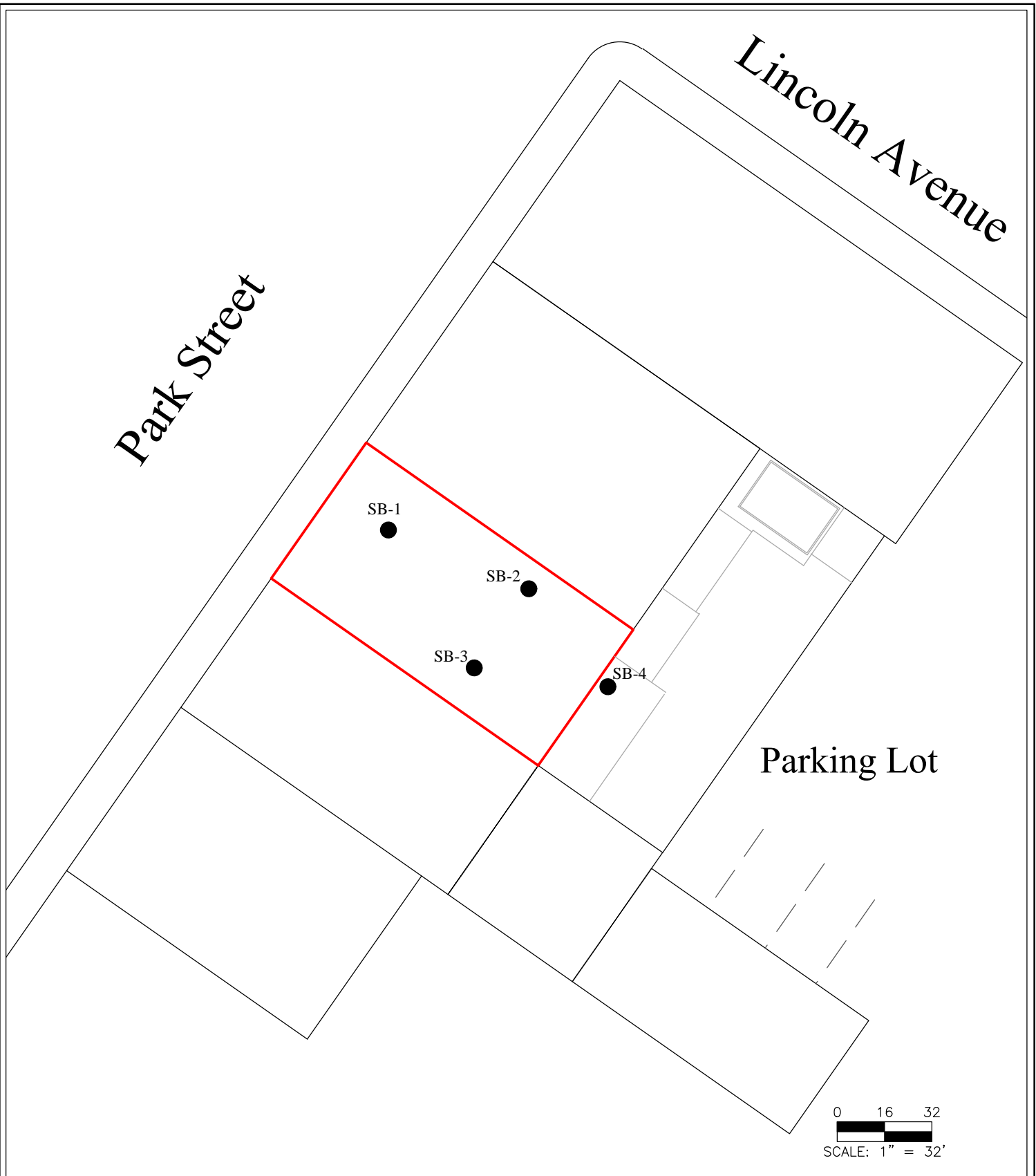
Legend

Approximate Property Boundary ■■■■■

FIGURE 2

Project Number: 299101

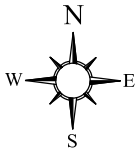
AEI
Consultants



LEGEND

/ Subject Property

● Soil Boring



AEI CONSULTANTS

2500 CAMINO DIABLO, SUITE 200, WALNUT CREEK

Site Plan

1534 Park Street
Alameda, CA 94501

FIGURE 3
PROJECT NO.299101

TABLES

Table 1
Soil Sample Analytical Data

Sample ID	Date	PCE	1,2,4-Trimethylbenzene	All VOCs
		(mg/kg)	(mg/kg)	(mg/kg)
<i>EPA Method SW8260B</i>				
SB-1-2	8/4/2011	0.10	<0.005	<RL
SB-2-2	8/4/2011	5.5	<0.005	<RL
SB-3-2	8/4/2011	0.23	0.023	<RL
SB-4-2	8/4/2011	0.50	<0.005	<RL
ESL		0.37	-	varies
RL		0.005	0.005	varies

mg/kg = milligrams per kilogram

PCE = Tetrachloroethene

VOCs = volatile organic compounds

SB = Soil Boring

RL= Reporting Limit

ESL = Environmental Screening Levels, San Francisco Regional Water Quality Control Board

"<" = less than

"-" = not applicable

**Table 2
Groundwater Sample Analytical Data**

Sample ID	Date	PCE (µg/L)	TBA (µg/L)	All VOCs (µg/L)
		<i>EPA Method SW8260B</i>		
SB-1-W	8/4/2011	8.2	10	<RL
SB-2-W	8/4/2011	15	3.8	<RL
SB-3-W	8/4/2011	16	2.2	<RL
SB-4-W	8/4/2011	12	4.1	<RL
ESL		5.0	12	varies
RL		0.5	0.5	varies

µg/L = micrograms per liter

PCE = Tetrachloroethene

TBA = t-Butyl Alcohol

VOCs = volatile organic compounds

SB = Soil boring

RL= reporting limit (with no dilution)- see laboratory reports for sample specific dilution factors

ESL = Environmental Screening Levels, San Francisco Regional Water Quality Control Board

"<" = less than

"-" = not applicable

APPENDIX A
SOIL BORING LOGS

Project: East West Bank Alameda
Project Location: 1534 Park Blvd., Alameda, CA 94501
Project Number: 299101

Key to Log of Boring

Sheet 1 of 1

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	USCS Symbol	Sampling Resistance, blows/ft	Relative Consistency	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9	10	11

COLUMN DESCRIPTIONS

- | | |
|---|--|
| <p>1 Elevation (feet): Elevation (MSL, feet).</p> <p>2 Depth (feet): Depth in feet below the ground surface.</p> <p>3 Sample Type: Type of soil sample collected at the depth interval shown.</p> <p>4 Sample Number: Sample identification number.</p> <p>5 USCS Symbol: USCS symbol of the subsurface material.</p> <p>6 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.</p> <p>7 Relative Consistency: Relative consistency of the subsurface material.</p> <p>8 Graphic Log: Graphic depiction of the subsurface material encountered.</p> | <p>9 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</p> <p>10 PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.</p> <p>11 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.</p> |
|---|--|

FIELD AND LABORATORY TEST ABBREVIATIONS

- | | |
|---|--|
| <p>CHEM: Chemical tests to assess corrosivity</p> <p>COMP: Compaction test</p> <p>CONS: One-dimensional consolidation test</p> <p>LL: Liquid Limit, percent</p> | <p>PI: Plasticity Index, percent</p> <p>SA: Sieve analysis (percent passing No. 200 Sieve)</p> <p>UC: Unconfined compressive strength test, Qu, in ksf</p> <p>WA: Wash sieve (percent passing No. 200 Sieve)</p> |
|---|--|

TYPICAL MATERIAL GRAPHIC SYMBOLS

<ul style="list-style-type: none"> Bentonite Bentonite chips Bentonite powder Fat CLAY, CLAY w/SAND, SANDY CLAY (CH) Fat CLAY/SILT (CH-MH) Lean CLAY, CLAY w/SAND, SANDY CLAY (CL) Claystone Lean-Fat CLAY, CLAY w/SAND, SANDY CLAY Cuttings Lean CLAY/PEAT (CL-OL) AF Clayey GRAVEL (GC) SILTY CLAY (CL-ML) Boulders 	<ul style="list-style-type: none"> Clayey GRAVEL to Gravelly CLAY (GC-CH) Clayey GRAVEL to Gravelly CLAY (GC-CL) Silty GRAVEL (GM) Silty GRAVEL to Clayey GRAVEL (GM-GC) Silty GRAVEL to Gravelly SILT (GM-MH) Silty GRAVEL to Gravelly SILT (GM-ML) Poorly graded GRAVEL with Silt (GP-GM) Granite Gravel Grout Well graded GRAVEL (GW) Well graded GRAVEL with Silt (GW-GM) Poorly to Well graded GRAVEL (GW-GP) Poorly graded GRAVEL (GP) 	<ul style="list-style-type: none"> Artificial Fill SILT, SILT w/SAND, SANDY SILT (MH) SILT, SILT with SAND, SANDY SILT (ML-MH) High plasticity PEAT (OH) Low plasticity PEAT (OL) Low to High plasticity PEAT (OL-OH) Sandstone Clayey SAND (SC) Clayey SAND to Sandy CLAY (SC-CH) Clayey SAND to Sandy CLAY (SC-CL) Shale Silt Siltstone Silty SAND (SM) 	<ul style="list-style-type: none"> Silty SAND to Sandy SILT (SM-MH) Silty SAND to Sandy SILT (SM-ML) Silty to Clayey SAND (SM-SC) Poorly graded SAND (SP) Poorly graded SAND with Clay (SP-SC) Well graded SAND (SW) Well graded SAND with Clay (SW-SC) Well graded SAND with Silt (SW-SM) SILT, SILT w/SAND, SANDY SILT (ML) Bentonite plug Asphaltic Concrete (AC) Poorly graded SAND with Silt (SP-SM) Black Rock - fine grained, exhibiting a bedding Gray rock, large grain size
---	--	---	---

TYPICAL SAMPLER GRAPHIC SYMBOLS

<ul style="list-style-type: none"> Shelby Tube (Thin-walled, fixed head) Shelby Tube (Thin-walled, fixed head) Bulk Sample 3-inch-OD California w/ brass rings 	<ul style="list-style-type: none"> Other sampler now modified Auger sampler CME Sampler 2-inch-OD unlined split spoon (SPT) 	<ul style="list-style-type: none"> 2.5-inch-OD Modified California w/ brass liners Grab Sample Pitcher Sample
--	---	---

OTHER GRAPHIC SYMBOLS

<ul style="list-style-type: none"> Water level (at time of drilling, ATD) Water level (after waiting a given time) Minor change in material properties within a stratum Inferred or gradational contact between strata Queried contact between strata

GENERAL NOTES

- 1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- 2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUJIE.D\1299101 EWB (Alameda) - HTTBoring Logs.bgs [20.tbl]

Project: East West Bank Alameda
Project Location: 1534 Park Blvd., Alameda, CA 94501
Project Number: 299101

Log of Boring SB-2

Sheet 1 of 1

Date(s) Drilled August 4, 2011	Logged By Harmony TomSun	Checked By Robert F. Flory
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole 16 feet bgs
Drill Rig Type GeoProbe	Drilling Contractor RSI Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 11.98 feet ATD	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Neat Cement	Location	

Elevation (feet)	Depth (feet)	Sample Type Sample Number	PID Reading, ppm	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	Well Log	REMARKS AND OTHER TESTS
	0			SM		Silty Sand, dark brown 3/3 7.5YR, fine to medium grained sand, 5% fine grained gravel, loose		
		SB-2-2	3.4					
		SB-2-4	2.9	SM		Silty Sand, yellowish brown 5/8 10YR, fine grained sand, friable		
	5							
		SB-2-7.5	<1	SP		Sand, strong brown 5/8 7.5YR, fine grained, poorly graded, friable, moist		
	10							
		SB-2-12	3.8	SM		Silty Sand, yellowish brown 5/6 10YR mottled dark gray 4/1 10YR, fine grained sand, moderately soft, moist to wet		
	15							
		SB-2-15.5	<1					
						Bottom of Boring at 16 feet bgs		
	20							
	25							
	30							

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUJIE.D\1299101 EWB (Alameda) - HT\Boring Logs.bgs (4-Well Log.tbl)

Project: East West Bank Alameda
Project Location: 1534 Park Blvd., Alameda, CA 94501
Project Number: 299101

Log of Boring SB-4
Sheet 1 of 1

Date(s) Drilled August 4, 2011	Logged By Harmony TomSun	Checked By Robert F. Flory
Drilling Method Direct Push	Drill Bit Size/Type	Total Depth of Borehole 16 feet bgs
Drill Rig Type GeoProbe	Drilling Contractor RSI Drilling	Approximate Surface Elevation
Groundwater Level and Date Measured 12.73 feet ATD	Sampling Method(s) Tube	Hammer Data
Borehole Backfill Neat Cement	Location	

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUJ\299101 EWB (Alameda) - HT\Boring Logs.bgs [20.tbl]

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	USCS Symbol	Sampling Resistance, blows/ft	Relative Consistency	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
	0			SM				Silty Sand, dark brown 3/3 7.5YR, fine grained sand, 10% fine grained gravel, loose	<1	
		SB-4-2								
				SM				Silty Sand, yellowish brown 5/8 10YR, fine to medium grained sand, friable, moist	<1	
	5	SB-4-5								
				SP				Sand, dark yellowish brown 4/4 10YR, fine grained sand, poorly graded, friable, moist	<1	
		SB-4-8								
	10	SB-4-11		SM				Silty Sand, yellowish brown 5/8 10YR, fine to medium grained sand, no plasticity, moist	<1	
	15	SB-4-15							<1	
	20							Bottom of Boring at 16 feet bgs		

APPENDIX B

SAMPLE ANALYTICAL DOCUMENTATION WITH CHAIN OF CUSTODY



Analytical Report

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
		Date Received: 08/04/11
	Client Contact: Harmony TomSun	Date Reported: 08/09/11
	Client P.O.: #WC083220	Date Completed: 08/08/11

WorkOrder: 1108147

August 09, 2011

Dear Harmony:

Enclosed within are:

- 1) The results of the **8** analyzed samples from your project: **#299101; EWB Alameda**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

1108147

McCAMPBELL ANALYTICAL INC.

1534 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

Report To: Harmony TomSun Bill To: same P.O. WC083220
Company: AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 E-Mail: htomsun@aeiconsultants.com
Tele: (925) 746-6000 Fax: (925) 746-6099
Project #: 299101 Project Name: EWB Alameda
Project Location: 1534 Park Street, Alameda, CA
Sampler Signature: *Harmony TomSun*

Analysis Request Other Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other					
SB-1-2	SB-1	8/4	10:00	1	liner	X													
SB-1-4			10:10																
SB-1-7			10:15																
SB-1-11.5			10:25																
SB-1-15			10:30																
SB-2-2	SB-2		10:38																
SB-2-4			10:41																
SB-2-7.5			10:45																
SB-2-12			10:52																
SB-2-15.5	SB-2	8/4/11	10:57																
SB-3-2	SB-3		11:00																
SB-3-4.5			11:04																
SB-3-7			11:09																
SB-3-11.5			11:15																

BTEX & TPH as Gas (602/8020 + 8015)/MTBE																				
TPH as Diesel (8015) - Multi-range																				
Total Petroleum Oil & Grease (5520 E&F/B&F)																				
Total Petroleum Hydrocarbons (418.1)																				
HVOCs EPA 8260																				
BTEX ONLY (EPA 602 / 8020)																				
TPH Multi-Range (G/D/MO 8015) w/ Silica Gel																				
EPA 608 / 8080 PCB's ONLY																				
EPA 8260 / 8260																				
EPA 625 / 8270 - SVOCs																				
PAH's / PNA's by EPA 625 / 8270 / 8310																				
CAM-17 Metals 6020																				
LUFT 5 Metals																				
Lead (7240/7421/239.2/6010)																				
RCI																				

Hold

XXXXX
XXXXX
XXXXX
XXXXX

Relinquished By: *[Signature]* Date: 8/4 Time: 3:14 Received By: *Deke Carter*
Relinquished By: *[Signature]* Date: 8/4/11 Time: 1605 Received By: *[Signature]*
Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/t° 3.2
GOOD CONDITION _____ PRESERVATION APPROPRIATE _____
HEAD SPACE ABSENT _____ CONTAINERS _____
DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

VOAS O&G METALS OTHER

McCAMPBELL ANALYTICAL INC.

1534 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

Report To: Harmony TomSun Bill To: same P.O. WC083220

Company: AEI Consultants

2500 Camino Diablo, Suite 200

Walnut Creek, CA 94597

E-Mail: htomsun@aeiconsultants.com

Tele: (925) 746-6000

Fax: (925) 746-6099

Project #: 299101

Project Name: EWB Alameda

Project Location: 1534 Park Street, Alameda, CA

Sampler Signature: *Harmony TomSun*

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other			
SB-3-15	SB-3	8/4/11	11:25	1	Line	X					X						
SB-4-2	SB-4		11:30										X				
SB-4-5			11:33														
SB-4-8			11:37														
SB-4-11			11:42														
SB-4-15			11:48														
SB-1-W	SB-1	8/4/11	12:05	3	VIA	X					X						
SB-2-W	SB-2		12:10														
SB-3-W	SB-3		12:15														
SB-4-W	SB-4		12:20														

Relinquished By: <i>[Signature]</i>	Date: 8/4	Time: 3:14	Received By: <i>Derek Cate</i>
Relinquished By: <i>[Signature]</i>	Date: 8/4/11	Time: 1605	Received By: <i>[Signature]</i>
Relinquished By:	Date:	Time:	Received By:

ICE/t° _____	VOAS	O&G	METALS	OTHER
GOOD CONDITION _____	PRESERVATION _____			
HEAD SPACE ABSENT _____	APPROPRIATE _____			
DECLORINATED IN LAB _____	CONTAINERS _____			
	PERSERVED IN LAB _____			

McC Campbell Analytical, Inc.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1108147

ClientCode: AEL

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to: Harmony TomSun Email: htomsun@aeiconsultants.com
 AEI Consultants cc: Sara Guerin
 2500 Camino Diablo, Ste. #200 PO: #WC083220 AEI Consultants
 Walnut Creek, CA 94597 ProjectNo: #299101; EWB Alameda 2500 Camino Diablo, Ste. #200
 (925) 944-2899 FAX: (925) 944-2895 Walnut Creek, CA 94597
 sguerin@aeiconsultants.com

Bill to: Sara Guerin
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597
 sguerin@aeiconsultants.com

Requested TAT: 5 days

Date Received: 08/04/2011
Date Printed: 08/04/2011

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	
1108147-001	SB-1-2	Soil	8/4/2011 10:00	<input type="checkbox"/>	A												
1108147-006	SB-2-2	Soil	8/4/2011 10:38	<input type="checkbox"/>	A												
1108147-011	SB-3-2	Soil	8/4/2011 11:00	<input type="checkbox"/>	A												
1108147-016	SB-4-2	Soil	8/4/2011 11:30	<input type="checkbox"/>	A												
1108147-021	SB-1-W	Water	8/4/2011 12:05	<input type="checkbox"/>		A											
1108147-022	SB-2-W	Water	8/4/2011 12:10	<input type="checkbox"/>		A											
1108147-023	SB-3-W	Water	8/4/2011 12:15	<input type="checkbox"/>		A											
1108147-024	SB-4-W	Water	8/4/2011 12:20	<input type="checkbox"/>		A											

Test Legend:

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

Prepared by: Ana Venegas

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: **8/4/2011 5:13:25 PM**
Project Name: **#299101; EWB Alameda** Checklist completed and reviewed by: **Ana Venegas**
WorkOrder N°: **1108147** Matrix: Soil/Water Carrier: Derik Cartan (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

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

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/04/11
		Date Analyzed: 08/05/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-001A
Client ID	SB-1-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	0.10	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes, Total	ND	1.0	0.005

Surrogate Recoveries (%)

%SS1:	96	%SS2:	109
%SS3:	110		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/04/11
		Date Analyzed: 08/05/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-006A
Client ID	SB-2-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<2.0	40	0.05	tert-Amyl methyl ether (TAME)	ND<0.20	40	0.005
Benzene	ND<0.20	40	0.005	Bromobenzene	ND<0.20	40	0.005
Bromochloromethane	ND<0.20	40	0.005	Bromodichloromethane	ND<0.20	40	0.005
Bromoform	ND<0.20	40	0.005	Bromomethane	ND<0.20	40	0.005
2-Butanone (MEK)	ND<0.80	40	0.02	t-Butyl alcohol (TBA)	ND<2.0	40	0.05
n-Butyl benzene	ND<0.20	40	0.005	sec-Butyl benzene	ND<0.20	40	0.005
tert-Butyl benzene	ND<0.20	40	0.005	Carbon Disulfide	ND<0.20	40	0.005
Carbon Tetrachloride	ND<0.20	40	0.005	Chlorobenzene	ND<0.20	40	0.005
Chloroethane	ND<0.20	40	0.005	Chloroform	ND<0.20	40	0.005
Chloromethane	ND<0.20	40	0.005	2-Chlorotoluene	ND<0.20	40	0.005
4-Chlorotoluene	ND<0.20	40	0.005	Dibromochloromethane	ND<0.20	40	0.005
1,2-Dibromo-3-chloropropane	ND<0.16	40	0.004	1,2-Dibromoethane (EDB)	ND<0.16	40	0.004
Dibromomethane	ND<0.20	40	0.005	1,2-Dichlorobenzene	ND<0.20	40	0.005
1,3-Dichlorobenzene	ND<0.20	40	0.005	1,4-Dichlorobenzene	ND<0.20	40	0.005
Dichlorodifluoromethane	ND<0.20	40	0.005	1,1-Dichloroethane	ND<0.20	40	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.16	40	0.004	1,1-Dichloroethene	ND<0.20	40	0.005
cis-1,2-Dichloroethene	ND<0.20	40	0.005	trans-1,2-Dichloroethene	ND<0.20	40	0.005
1,2-Dichloropropane	ND<0.20	40	0.005	1,3-Dichloropropane	ND<0.20	40	0.005
2,2-Dichloropropane	ND<0.20	40	0.005	1,1-Dichloropropene	ND<0.20	40	0.005
cis-1,3-Dichloropropene	ND<0.20	40	0.005	trans-1,3-Dichloropropene	ND<0.20	40	0.005
Diisopropyl ether (DIPE)	ND<0.20	40	0.005	Ethylbenzene	ND<0.20	40	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.20	40	0.005	Freon 113	ND<4.0	40	0.1
Hexachlorobutadiene	ND<0.20	40	0.005	Hexachloroethane	ND<0.20	40	0.005
2-Hexanone	ND<0.20	40	0.005	Isopropylbenzene	ND<0.20	40	0.005
4-Isopropyl toluene	ND<0.20	40	0.005	Methyl-t-butyl ether (MTBE)	ND<0.20	40	0.005
Methylene chloride	ND<0.20	40	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.20	40	0.005
Naphthalene	ND<0.20	40	0.005	n-Propyl benzene	ND<0.20	40	0.005
Styrene	ND<0.20	40	0.005	1,1,1,2-Tetrachloroethane	ND<0.20	40	0.005
1,1,2,2-Tetrachloroethane	ND<0.20	40	0.005	Tetrachloroethene	5.5	40	0.005
Toluene	ND<0.20	40	0.005	1,2,3-Trichlorobenzene	ND<0.20	40	0.005
1,2,4-Trichlorobenzene	ND<0.20	40	0.005	1,1,1-Trichloroethane	ND<0.20	40	0.005
1,1,2-Trichloroethane	ND<0.20	40	0.005	Trichloroethene	ND<0.20	40	0.005
Trichlorofluoromethane	ND<0.20	40	0.005	1,2,3-Trichloropropane	ND<0.20	40	0.005
1,2,4-Trimethylbenzene	ND<0.20	40	0.005	1,3,5-Trimethylbenzene	ND<0.20	40	0.005
Vinyl Chloride	ND<0.20	40	0.005	Xylenes, Total	ND<0.20	40	0.005

Surrogate Recoveries (%)

%SS1:	101	%SS2:	103
%SS3:	101		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/04/11
		Date Analyzed: 08/05/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-011A
Client ID	SB-3-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.20	4.0	0.05	tert-Amyl methyl ether (TAME)	ND<0.020	4.0	0.005
Benzene	ND<0.020	4.0	0.005	Bromobenzene	ND<0.020	4.0	0.005
Bromochloromethane	ND<0.020	4.0	0.005	Bromodichloromethane	ND<0.020	4.0	0.005
Bromoform	ND<0.020	4.0	0.005	Bromomethane	ND<0.020	4.0	0.005
2-Butanone (MEK)	ND<0.080	4.0	0.02	t-Butyl alcohol (TBA)	ND<0.20	4.0	0.05
n-Butyl benzene	ND<0.020	4.0	0.005	sec-Butyl benzene	ND<0.020	4.0	0.005
tert-Butyl benzene	ND<0.020	4.0	0.005	Carbon Disulfide	ND<0.020	4.0	0.005
Carbon Tetrachloride	ND<0.020	4.0	0.005	Chlorobenzene	ND<0.020	4.0	0.005
Chloroethane	ND<0.020	4.0	0.005	Chloroform	ND<0.020	4.0	0.005
Chloromethane	ND<0.020	4.0	0.005	2-Chlorotoluene	ND<0.020	4.0	0.005
4-Chlorotoluene	ND<0.020	4.0	0.005	Dibromochloromethane	ND<0.020	4.0	0.005
1,2-Dibromo-3-chloropropane	ND<0.016	4.0	0.004	1,2-Dibromoethane (EDB)	ND<0.016	4.0	0.004
Dibromomethane	ND<0.020	4.0	0.005	1,2-Dichlorobenzene	ND<0.020	4.0	0.005
1,3-Dichlorobenzene	ND<0.020	4.0	0.005	1,4-Dichlorobenzene	ND<0.020	4.0	0.005
Dichlorodifluoromethane	ND<0.020	4.0	0.005	1,1-Dichloroethane	ND<0.020	4.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.016	4.0	0.004	1,1-Dichloroethene	ND<0.020	4.0	0.005
cis-1,2-Dichloroethene	ND<0.020	4.0	0.005	trans-1,2-Dichloroethene	ND<0.020	4.0	0.005
1,2-Dichloropropane	ND<0.020	4.0	0.005	1,3-Dichloropropane	ND<0.020	4.0	0.005
2,2-Dichloropropane	ND<0.020	4.0	0.005	1,1-Dichloropropene	ND<0.020	4.0	0.005
cis-1,3-Dichloropropene	ND<0.020	4.0	0.005	trans-1,3-Dichloropropene	ND<0.020	4.0	0.005
Diisopropyl ether (DIPE)	ND<0.020	4.0	0.005	Ethylbenzene	ND<0.020	4.0	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.020	4.0	0.005	Freon 113	ND<0.40	4.0	0.1
Hexachlorobutadiene	ND<0.020	4.0	0.005	Hexachloroethane	ND<0.020	4.0	0.005
2-Hexanone	ND<0.020	4.0	0.005	Isopropylbenzene	ND<0.020	4.0	0.005
4-Isopropyl toluene	ND<0.020	4.0	0.005	Methyl-t-butyl ether (MTBE)	ND<0.020	4.0	0.005
Methylene chloride	ND<0.020	4.0	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.020	4.0	0.005
Naphthalene	ND<0.020	4.0	0.005	n-Propyl benzene	ND<0.020	4.0	0.005
Styrene	ND<0.020	4.0	0.005	1,1,1,2-Tetrachloroethane	ND<0.020	4.0	0.005
1,1,2,2-Tetrachloroethane	ND<0.020	4.0	0.005	Tetrachloroethene	0.23	4.0	0.005
Toluene	ND<0.020	4.0	0.005	1,2,3-Trichlorobenzene	ND<0.020	4.0	0.005
1,2,4-Trichlorobenzene	ND<0.020	4.0	0.005	1,1,1-Trichloroethane	ND<0.020	4.0	0.005
1,1,2-Trichloroethane	ND<0.020	4.0	0.005	Trichloroethene	ND<0.020	4.0	0.005
Trichlorofluoromethane	ND<0.020	4.0	0.005	1,2,3-Trichloropropane	ND<0.020	4.0	0.005
1,2,4-Trimethylbenzene	0.023	4.0	0.005	1,3,5-Trimethylbenzene	ND<0.020	4.0	0.005
Vinyl Chloride	ND<0.020	4.0	0.005	Xylenes, Total	ND<0.020	4.0	0.005

Surrogate Recoveries (%)

%SS1:	99	%SS2:	103
%SS3:	101		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB	Date Sampled: 08/04/11
	Alameda	Date Received: 08/04/11
	Client Contact: Harmony TomSun	Date Extracted: 08/04/11
	Client P.O.: #WC083220	Date Analyzed: 08/05/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-016A
Client ID	SB-4-2
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<0.50	10	0.05	tert-Amyl methyl ether (TAME)	ND<0.050	10	0.005
Benzene	ND<0.050	10	0.005	Bromobenzene	ND<0.050	10	0.005
Bromochloromethane	ND<0.050	10	0.005	Bromodichloromethane	ND<0.050	10	0.005
Bromoform	ND<0.050	10	0.005	Bromomethane	ND<0.050	10	0.005
2-Butanone (MEK)	ND<0.20	10	0.02	t-Butyl alcohol (TBA)	ND<0.50	10	0.05
n-Butyl benzene	ND<0.050	10	0.005	sec-Butyl benzene	ND<0.050	10	0.005
tert-Butyl benzene	ND<0.050	10	0.005	Carbon Disulfide	ND<0.050	10	0.005
Carbon Tetrachloride	ND<0.050	10	0.005	Chlorobenzene	ND<0.050	10	0.005
Chloroethane	ND<0.050	10	0.005	Chloroform	ND<0.050	10	0.005
Chloromethane	ND<0.050	10	0.005	2-Chlorotoluene	ND<0.050	10	0.005
4-Chlorotoluene	ND<0.050	10	0.005	Dibromochloromethane	ND<0.050	10	0.005
1,2-Dibromo-3-chloropropane	ND<0.040	10	0.004	1,2-Dibromoethane (EDB)	ND<0.040	10	0.004
Dibromomethane	ND<0.050	10	0.005	1,2-Dichlorobenzene	ND<0.050	10	0.005
1,3-Dichlorobenzene	ND<0.050	10	0.005	1,4-Dichlorobenzene	ND<0.050	10	0.005
Dichlorodifluoromethane	ND<0.050	10	0.005	1,1-Dichloroethane	ND<0.050	10	0.005
1,2-Dichloroethane (1,2-DCA)	ND<0.040	10	0.004	1,1-Dichloroethene	ND<0.050	10	0.005
cis-1,2-Dichloroethene	ND<0.050	10	0.005	trans-1,2-Dichloroethene	ND<0.050	10	0.005
1,2-Dichloropropane	ND<0.050	10	0.005	1,3-Dichloropropane	ND<0.050	10	0.005
2,2-Dichloropropane	ND<0.050	10	0.005	1,1-Dichloropropene	ND<0.050	10	0.005
cis-1,3-Dichloropropene	ND<0.050	10	0.005	trans-1,3-Dichloropropene	ND<0.050	10	0.005
Diisopropyl ether (DIPE)	ND<0.050	10	0.005	Ethylbenzene	ND<0.050	10	0.005
Ethyl tert-butyl ether (ETBE)	ND<0.050	10	0.005	Freon 113	ND<1.0	10	0.1
Hexachlorobutadiene	ND<0.050	10	0.005	Hexachloroethane	ND<0.050	10	0.005
2-Hexanone	ND<0.050	10	0.005	Isopropylbenzene	ND<0.050	10	0.005
4-Isopropyl toluene	ND<0.050	10	0.005	Methyl-t-butyl ether (MTBE)	ND<0.050	10	0.005
Methylene chloride	ND<0.050	10	0.005	4-Methyl-2-pentanone (MIBK)	ND<0.050	10	0.005
Naphthalene	ND<0.050	10	0.005	n-Propyl benzene	ND<0.050	10	0.005
Styrene	ND<0.050	10	0.005	1,1,1,2-Tetrachloroethane	ND<0.050	10	0.005
1,1,2,2-Tetrachloroethane	ND<0.050	10	0.005	Tetrachloroethene	0.50	10	0.005
Toluene	ND<0.050	10	0.005	1,2,3-Trichlorobenzene	ND<0.050	10	0.005
1,2,4-Trichlorobenzene	ND<0.050	10	0.005	1,1,1-Trichloroethane	ND<0.050	10	0.005
1,1,2-Trichloroethane	ND<0.050	10	0.005	Trichloroethene	ND<0.050	10	0.005
Trichlorofluoromethane	ND<0.050	10	0.005	1,2,3-Trichloropropane	ND<0.050	10	0.005
1,2,4-Trimethylbenzene	ND<0.050	10	0.005	1,3,5-Trimethylbenzene	ND<0.050	10	0.005
Vinyl Chloride	ND<0.050	10	0.005	Xylenes, Total	ND<0.050	10	0.005

Surrogate Recoveries (%)

%SS1:	100	%SS2:	103
%SS3:	99		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/06/11
		Date Analyzed: 08/06/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-021A
Client ID	SB-1-W
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	10	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	8.2	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	111	%SS2:	106
%SS3:	121		

Comments: b1

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB	Date Sampled: 08/04/11
	Alameda	Date Received: 08/04/11
	Client Contact: Harmony TomSun	Date Extracted: 08/06/11
	Client P.O.: #WC083220	Date Analyzed: 08/06/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-022A
Client ID	SB-2-W
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	3.8	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	15	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	112	%SS2:	107
%SS3:	121		

Comments: b1

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/06/11
		Date Analyzed: 08/06/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-023A
Client ID	SB-3-W
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	2.2	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	16	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	112	%SS2:	105
%SS3:	119		

Comments: b1

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #299101; EWB Alameda	Date Sampled: 08/04/11
	Client Contact: Harmony TomSun	Date Received: 08/04/11
	Client P.O.: #WC083220	Date Extracted: 08/06/11
		Date Analyzed: 08/06/11

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1108147

Lab ID	1108147-024A
Client ID	SB-4-W
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	4.1	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethylbenzene	ND	1.0	0.5
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5	Freon 113	ND	1.0	10
Hexachlorobutadiene	ND	1.0	0.5	Hexachloroethane	ND	1.0	0.5
2-Hexanone	ND	1.0	0.5	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	ND	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	12	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes, Total	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	112	%SS2:	106
%SS3:	119		

Comments: b1

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 60213

WorkOrder: 1108147

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 1108146-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	82.8	80.3	2.81	89.8	86.2	3.82	70 - 130	30	70 - 130	30
Benzene	ND	0.050	103	101	1.94	104	104	0	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	103	102	0.606	122	104	16.2	70 - 130	30	70 - 130	30
Chlorobenzene	ND	0.050	99.2	96.4	2.85	105	101	4.23	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	94.9	91.8	3.35	102	95.4	6.39	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	105	102	3.10	109	107	1.77	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	0.050	106	106	0	106	108	1.94	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	121	119	1.58	123	123	0	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	109	108	1.12	112	110	2.19	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	107	101	5.07	108	106	1.85	70 - 130	30	70 - 130	30
Toluene	ND	0.050	105	105	0	108	108	0	70 - 130	30	70 - 130	30
Trichloroethene	ND	0.050	91.8	89	3.00	94.8	92.8	2.17	70 - 130	30	70 - 130	30
%SS1:	96	0.12	93	92	0.750	88	93	5.76	70 - 130	30	70 - 130	30
%SS2:	108	0.12	107	111	3.34	106	109	2.29	70 - 130	30	70 - 130	30
%SS3:	108	0.012	98	101	2.58	93	96	2.95	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 60213 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1108147-001A	08/04/11 10:00 AM	08/04/11	08/05/11 4:02 AM	1108147-006A	08/04/11 10:38 AM	08/04/11	08/05/11 9:42 PM
1108147-011A	08/04/11 11:00 AM	08/04/11	08/05/11 10:21 PM	1108147-016A	08/04/11 11:30 AM	08/04/11	08/05/11 10:59 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 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.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 60204

WorkOrder: 1108147

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 1108098-009A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	74.7	74.8	0.185	80.6	80.3	0.365	70 - 130	30	70 - 130	30
Benzene	ND	10	99.4	101	1.70	95.1	93.2	2.05	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	96.2	98.4	2.17	87.5	94.3	7.47	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	104	106	1.67	97	94.7	2.40	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	101	103	1.62	94	94.9	0.890	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	100	106	5.53	95.4	95	0.381	70 - 130	30	70 - 130	30
1,1-Dichloroethene	1.0	10	72.8	74.8	2.43	84.4	81.8	3.05	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	104	105	0.947	99.6	97.8	1.82	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	99.7	101	1.82	91.3	90.2	1.23	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	107	110	2.30	94.3	95	0.773	70 - 130	30	70 - 130	30
Toluene	ND	10	98.2	101	2.56	95.5	93.4	2.30	70 - 130	30	70 - 130	30
Trichloroethene	1.4	10	91.8	91.9	0.175	97.2	94.4	2.87	70 - 130	30	70 - 130	30
%SS1:	112	25	109	111	1.54	99	100	0.918	70 - 130	30	70 - 130	30
%SS2:	104	25	105	104	1.24	103	103	0	70 - 130	30	70 - 130	30
%SS3:	114	2.5	115	111	2.97	97	99	1.98	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 60204 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1108147-021A	08/04/11 12:05 PM	08/06/11	08/06/11 2:39 AM	1108147-022A	08/04/11 12:10 PM	08/06/11	08/06/11 3:22 AM
1108147-023A	08/04/11 12:15 PM	08/06/11	08/06/11 4:02 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 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.
 # surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 60236

WorkOrder: 1108147

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 1108148-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	88.2	87.6	0.685	81.4	80.9	0.608	70 - 130	30	70 - 130	30
Benzene	ND	10	114	114	0	97.6	95.1	2.66	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	110	111	0.958	88.6	89.6	1.13	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	106	106	0	100	97.5	2.81	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	112	112	0	95.9	93.9	2.12	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	106	105	1.09	95.7	95.2	0.505	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	97.5	97.1	0.424	87.1	85.1	2.39	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	121	122	0.978	100	98.6	1.87	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	115	115	0	92.4	90.7	1.89	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	123	124	0.882	94.8	93.4	1.52	70 - 130	30	70 - 130	30
Toluene	3.9	10	107	108	0.292	98.7	95	3.80	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	114	113	0.532	101	98	3.28	70 - 130	30	70 - 130	30
%SS1:	99	25	105	104	0.661	99	101	2.15	70 - 130	30	70 - 130	30
%SS2:	106	25	98	98	0	103	103	0	70 - 130	30	70 - 130	30
%SS3:	107	2.5	117	116	0.808	96	97	1.08	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 60236 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1108147-024A	08/04/11 12:20 PM	08/06/11	08/06/11 4:44 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 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.
 # surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.