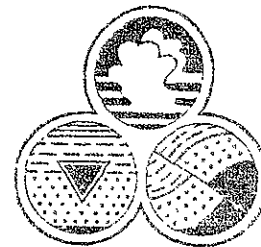


# Advanced GeoEnvironmental, Inc.



13 February 2001  
AGE-NC Project No. 99-0556

Inspector Hernan Gomez  
City of Oakland Fire Department  
1605 Martin Luther King Jr. Way  
Oakland, California, 94612

Mr. Achim Ehrhardt  
former Continental Volvo, Inc.  
774 Mays Boulevard #10  
Incline Village, Nevada 89451  
facsimile: (775) 833-0545

JAN 10 2002

**Subject:       Subsurface Investigation Results**  
**Continental Volvo**  
**4030 - 4122 East 14<sup>th</sup> Street, Oakland, California**

Dear Mr. Gomez:

At your request *Advanced* GeoEnvironmental, Inc. (AGE) has prepared the enclosed work plan for the preliminary subsurface assessment of the unauthorized release of petroleum hydrocarbons and solvents from the former Continental Volvo, Inc. at 4030 - 4122 East 14<sup>th</sup> Street, Oakland, California. The location of the site is illustrated in Figure 1. A plan view or layout of the maintenance compound on the property is illustrated in Figure 2.

## 1.0.    UNDERGROUND STORAGE TANK REMOVAL

Based on the information currently at AGE's disposal, one underground storage tank (UST) was removed from the site in 1985. A 550-gallon waste oil UST was located in the eastern sidewalk of the site. A new double-walled UST for waste-oil was installed in the same location. On 04 May 2000, the two USTs were removed from site under permit. Tank #1 were utilized for heating oil, while tank #2 was upgraded/permitted and used to store waste oil (Figure 2).

Following removal of the tank, a backhoe was used to collect a soil sample from 2 feet below the ends of the former USTs (Figure 2). A soil sample was collected from the heating oil UST soil stockpile to be analyzed. A grab water sample was collected from the waste oil UST area well.

TPH and BTE&X were present in each two of the samples analyzed in concentrations exceeding the method detection limits. TPH-g was detected in the soil samples has high as 360 milligrams per kilogram (mg/kg), TPH-d 1,100 mg/kg and TPH-mo 2,000 mg/kg. BTE&X compounds were detected as high as 0.7 mg/kg benzene. Total lead and other metal were detected at or above background levels. PCBs were also detected in the waste oil UST sample. TPH and BTEX were not detected in the stockpile soil sample.

The grab water sample was impacted. TPH-g was detected in the soil samples has high as 180 micrograms per liter ( $\mu\text{g/l}$ ), TPH-d 68,000  $\mu\text{g/l}$  and TPH-mo 200,000  $\mu\text{g/l}$ . BTE&X compounds were detected as high as 23  $\mu\text{g/l}$  benzene. LUFT metals were detected in the grab water sample from the waste oil UST area.

Based on these concentrations a site assessment of the release was requested by the City of Oakland. Tasks and procedures for this investigation were completed in accordance with the approved *Subsurface Investigation Work Plan*, dated 05 October 2000 and prepared by AGE.

## 2.0. PROBING AND SAMPLING

On 08 January 2001, two soil probe borings (P13 and P14) were advanced at the site. Two soil probe borings were advanced in the vicinity the former UST, in the City of Oakland right-of-way. Locations of the soil probe borings are illustrated on Figure 2.

All probe borings were advanced using a van-mounted Geoprobe 5400 probing machine. Soil probe boring were advanced to a depth of 35 feet bsg. Discrete soil samples were collected in probe borings at 5-foot intervals beginning at a depth of 15 feet bsg. Samples were collected using a 2.15-inch diameter, two-foot long, piston type sampler loaded with four pre-cleaned 1.375-inch by 6-inch brass sleeves. The sampling equipment was washed in an Alconox solution and rinsed with water prior to each sampling run to avoid cross-contamination.

Upon sample retrieval, both ends of the second brass sleeve were covered with Teflon sheets, capped and sealed with tape. Samples were then placed in a chilled container and transported under chain-of-custody to McCampbell Analytical, Inc. (MAI) in Pacheco, California.

## 2.1. SOIL LOGGING

Soil was extruded from the remaining brass sleeves and screened for the presence of organic vapor using an organic vapor meter equipped with a photo-ionization detector (PID: Thermo Environmental 580A, 10.0 eV, calibrated to isobutylene), and the readings were recorded on the Boring Logs. The soil was described in accordance with the Unified Soil Classification System.

Water in P-13  
at 30' bgs

## 2.2. GRAB GROUND WATER SAMPLE COLLECTION

A grab ground water samples was collected from probe borings P13 using a Geoprobe water sampling assembly, with a water sampler screen interval. Ground water was allowed to enter the sampler, and samples were retrieved using a modified PVC tubing bailer. Ground water was not present in probe boring P14 at 35 feet bsg. A grab ground water sample was collected from the sampling well in the former waste oil UST excavation.

After sample retrieval, the sampler was disassembled and cleaned. New PVC tubing was used for the sample. The Sample was collected from boring P13 in either 40-ml EPA vials containing hydrochloric acid for sample preservation and 1-liter amber bottles. The samples were placed in a chilled container and transported under chain-of-custody to MAI for analysis.

## 2.3. LABORATORY ANALYSIS OF SOIL AND GROUND WATER SAMPLES

Selected soil and the ground water sample were logged on a chain-of-custody form, placed in a chilled container and transported to McCampbell Analytical Inc. (MAI) and analyzed for:

- Total petroleum hydrocarbons quantified as gasoline, diesel and motor oil (TPH-g/d/,mo) in accordance with EPA Method 8015 Modified;
- Volatile aromatics: benzene, toluene, ethylbenzene and xylene (BTEX) with methyl tertiary-butyl ether (MTBE) in accordance with EPA Method 8020; and
- Fuel additives, including tertiary butanol (TBA), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE) and tert-amyl methyl ether (TAME), MTBE, methanol, ethanol, ethyl-dibromide (EDB) and 1,2-dichloroethane (1,2-DCA) and volatile organic analysis (VOCs) in accordance with EPA Method 8260 Modified.

Analytical data for the samples are included in Appendix A. The analytical results of soil samples and the grab ground water sample are summarized in Table 1.

?  
any borings  
of well?  
how deep is  
"well"  
get top  
9" diameter

Summary Mistake

### 3.0. FINDINGS

TPH-g, TPH-d and TPH-mo were detected in one soil sample, P14-10, collected from of the waste oil UST at concentrations of 260 mg/kg (milligrams per kilograms), 1,000 mg/kg and 2,200 mg/kg, respectively. TPH-d and TPH-mo were also detected in soil sample P14-15 at concentrations of 2.7 mg/kg and 8.9 mg/kg, respectively.

BTEX compounds were detected in one soil sample, P14-10 at concentrations of 0.51 mg/kg, 0.23 mg/kg, 0.49 mg/kg and 1.3 mg/kg, respectively.

Trichloroethene (TCE) was detected in two soil samples from boring P14 at 20 feet and 30 feet bsg at concentrations of 7.2 (micrograms per kilograms)  $\mu\text{g}/\text{kg}$  and 17  $\mu\text{g}/\text{kg}$ , respectively. TCE was not detected in soil samples P14-35.

TPH-g, TPH-d and TPH-mo were detected in the grab ground water sample from the waste oil UST excavation (monitoring well) at concentrations of 61  $\mu\text{g}/\text{l}$  (micrograms per liter), 8,700  $\mu\text{g}/\text{l}$  and 54,000  $\mu\text{g}/\text{l}$ , respectively. Benzene was also detected in the same samples at a concentration of 3.0  $\mu\text{g}/\text{l}$ . MTBE was detected in the grab water sample at a concentration of 1.4  $\mu\text{g}/\text{l}$ . No TCE in grab gw

Trichloroethene (TCE) was detected in the grab water sample from probe boring P13, the heating oil UST, at a concentration of 65  $\mu\text{g}/\text{l}$ . Cis-1,2-DCA was detected the grab water sample from probe boring P13, the heating oil, at a concentration of 43  $\mu\text{g}/\text{l}$ . 1,2-DCA was detected the grab water sample from the waste oil UST sampling well, at a concentration of 2.8  $\mu\text{g}/\text{l}$ .

Laboratory results of soil and grab ground water samples analyzed for petroleum hydrocarbons are summarized in the laboratory reports (MAI Laboratory ID 57394 through 57405) along with the quality assurance and quality control (QA/QC) reports and chains-of-custody in Appendix A.

### 5.0. CONCLUSIONS

Based upon the results of the subsurface investigations, AGE concludes:

- Petroleum hydrocarbon-impacted soil at the site was encountered in the vicinity of the former UST/current UST within East 15<sup>th</sup> Street. The impacted soil was encountered in a somewhat narrow zone from depths of approximately 10 to 15 feet bsg.
- The chlorinated cleaning solvent TCE, commonly use for de-greasing, was detected at low concentrations in soils samples at a depth of 30 feet bsg in the area of the waste oil tank. The vertical or lateral extent of the TCE contamination is defined.

- Diesel fuel or motor oil-impacted ground water near the heating oil UST appears to have originated from a diesel or heating-oil fuel matrix. The laboratory was consulted to decipher the make-up the petroleum-hydrocarbons detected in the water sample. A mix of low concentration diesel and high concentration oil was well pronounced in the laboratory data. This mix of hydrocarbons, with the absence of gasoline and BTEX compounds, suggests a heating oil make-up of a petroleum release.
- The lack of detection of MTBE in soil samples and the low presence in the water sample collected from the waste oil site suggests that the release of fuels is relatively old, possibly close to twenty years old.
- The detection of TCE and 1,2-DCA and further the diesel/oil detection, from the heating oil UST area, suggests an off-site source of contaminants diesel (possible solvents). However, some heating oil (diesel) appears to have impacted ground water, based on the samples.

If you have any question or require further information regarding this site, please contact Mr. William Little of our office at (209) 467-1006.

Sincerely,

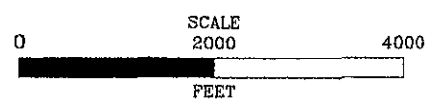
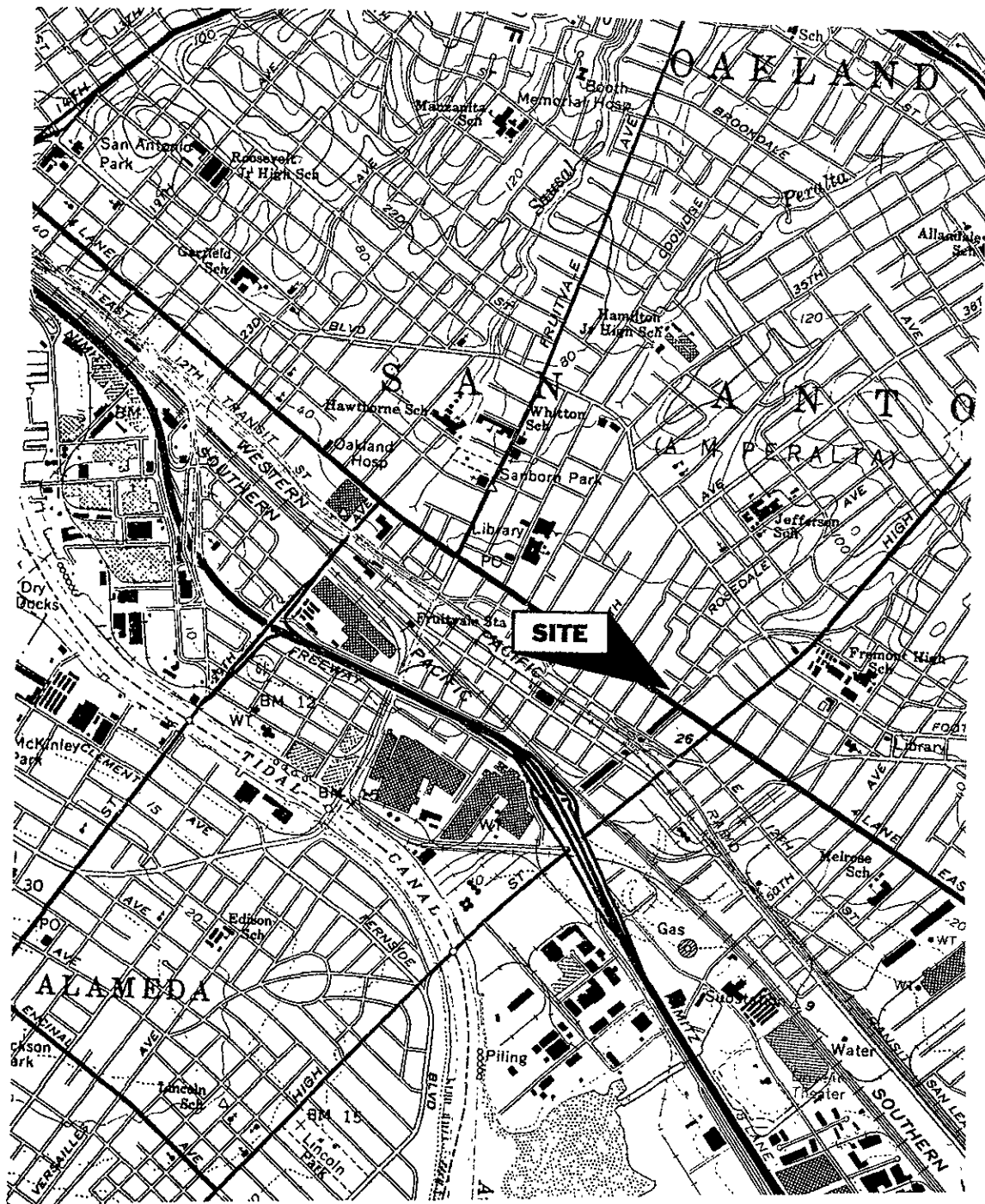
*Advanced GeoEnvironmental, Inc.*

or. *Calvin Lee X17*

*William Little*

William Little  
Staff Geologist

cc:

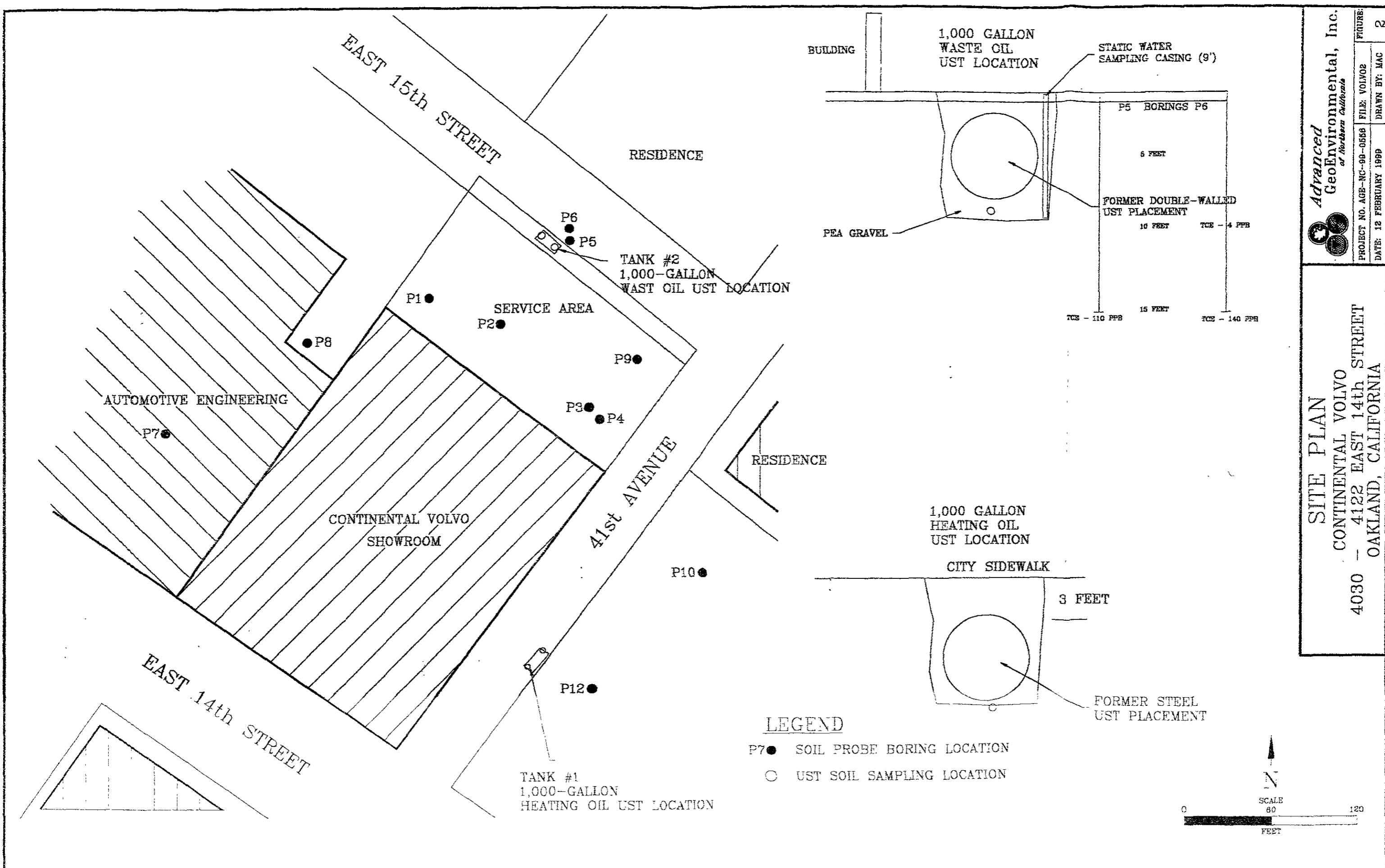


LOCATION MAP  
CONTINENTAL VOLVO  
4030-4122 EAST 14TH STREET  
OAKLAND, CALIFORNIA



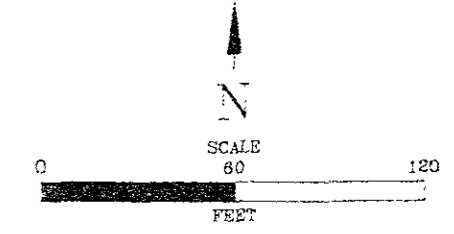
*Advanced*  
GeoEnvironmental, Inc.  
*of Northern California*

PROJECT NO. AGE-NC-99-0556	FILE: CON1	FIGURE:
DATE: 10 MARCH 1999	DRAWN BY: MAC	1



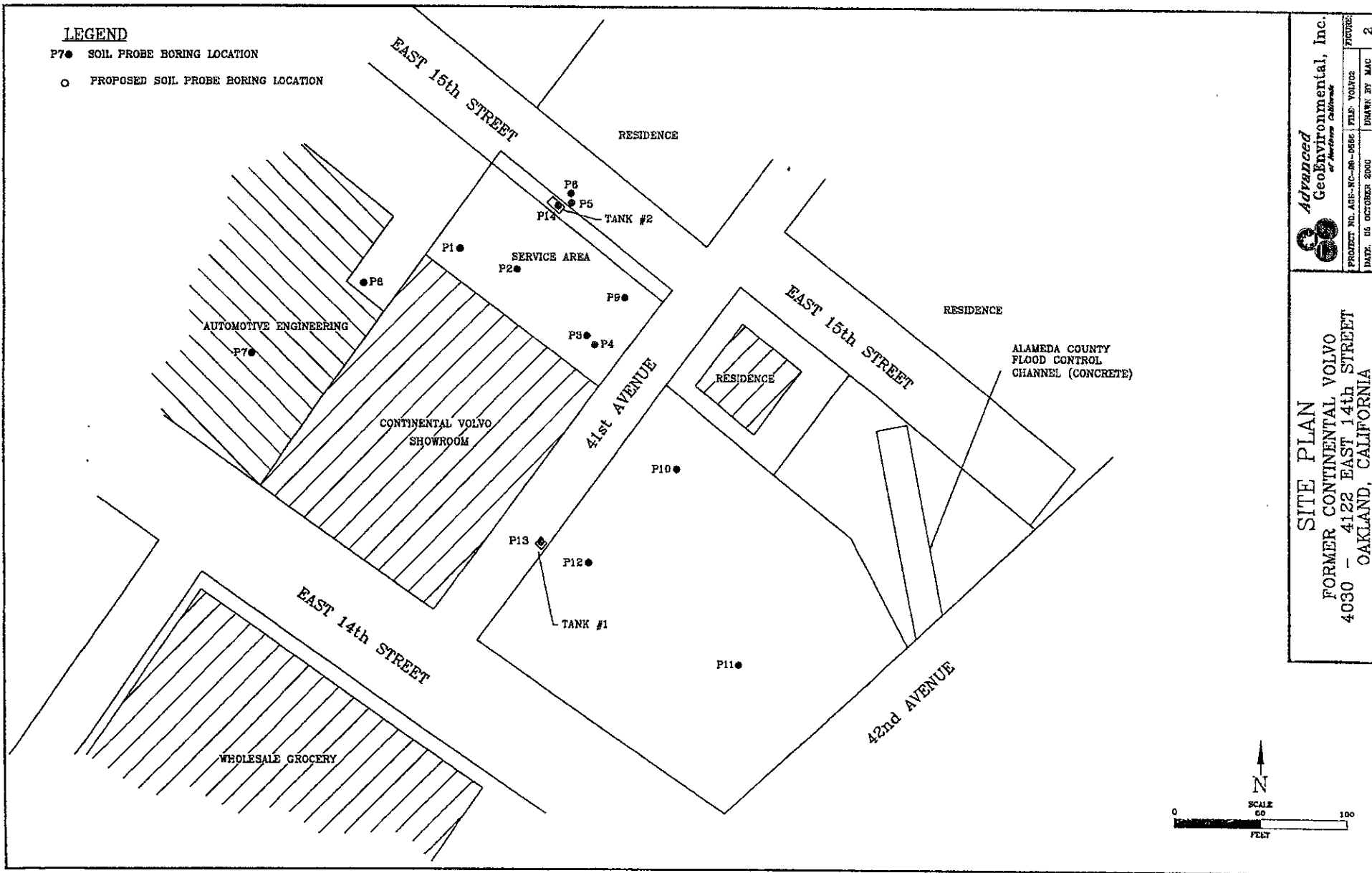
SITE PLAN  
 CONTINENTAL VOLVO  
 4030 - 4122 EAST 14th STREET  
 OAKLAND, CALIFORNIA

**LEGEND**  
 P7● SOIL PROBE BORING LOCATION  
 ○ UST SOIL SAMPLING LOCATION



**LEGEND**

- P7● SOIL PROBE BORING LOCATION
- PROPOSED SOIL PROBE BORING LOCATION



**SITE PLAN**  
**FORMER CONTINENTAL VOLVO**  
**4030 - 4122 EAST 14th STREET**  
**OAKLAND, CALIFORNIA**

*Advanced*  
**GeoEnvironmental, Inc.**  
*of Advanced California*

PROJECT NO. AFE-NC-06-0562	FILE: VOLVO
DATE: 10 OCTOBER 2000	FIGURE: 2
DRAWN BY: MAC	





McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
<http://www.mccampbell.com> E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08/01
	Client P.O:	Date Analyzed: 01/08/01

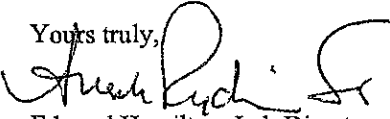
01/16/01

Dear Bill:

Enclosed are:

- 1). the results of 10 samples from your **Continental Volvo** project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,  
  
Edward Hamilton, Lab Director



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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08-01/10/01
	Client P.O:	Date Analyzed: 01/08-01/10/01

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with Methyl tert-Butyl Ether\* & BTEX\***

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
57394	UST #2	W	61,a,h	ND	3.0	ND	ND	ND	108
57395	P13	W	ND,i	ND	ND	ND	ND	ND	---#
57396	P13-15	S	ND	ND	ND	ND	ND	ND	115
57398	P13-25	S	ND	ND	ND	ND	ND	ND	103
57400	P13-35	S	ND	ND	ND	ND	ND	ND	100
57401	P14-10	S	260,g,a	ND<0.10	0.51	0.23	0.49	1.3	88
57402	P14-15	S	ND	ND	ND	ND	ND	ND	101
57403	P14-20	S	ND	ND	ND	ND	ND	ND	98
57404	P14-30	S	ND	ND	ND	ND	ND	ND	105
57405	P14-35	S	ND	ND	ND	ND	ND	ND	116
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

\* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

# cluttered chromatogram; sample peak coelutes with surrogate peak

\*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.





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 http://www.mccampbell.com E-mail: main@mccampbell.com

Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
	Client Contact: Bill Little	Date Received: 01/08/01
	Client P.O:	Date Extracted: 01/08-01/12/01
		Date Analyzed: 01/08-01/12/01

**Volatile Organics By GC/MS**


EPA method 8260							
Lab ID	57394						
Client ID	UST#2						
Matrix	W						
Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	2.6	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<5.0	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(f)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(h)</sup>	ND	1.0	5.0	Styrene <sup>(i)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<5.0	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(j)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	2.8	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments: h</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane	111		
1,1-Dichloropropane	ND	1.0	5.0	Toluene-d8	98		
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene	102		

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	57395
Client ID	P13
Matrix	W

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND<5.0	5.0	25	trans-1,3-Dichloropropene	ND<2.5	1.0	5.0
Benzene	ND<2.5	1.0	5.0	Ethylene dibromide	ND<2.5	1.0	5.0
Bromobenzene	ND<2.5	1.0	5.0	Ethylbenzene	ND<2.5	1.0	5.0
Bromochloromethane	ND<2.5	1.0	5.0	Hexachlorobutadiene	ND<5.0	5.0	25
Bromodichloromethane	ND<2.5	1.0	5.0	Iodomethane	ND<2.5	1.0	5.0
Bromoform	ND<2.5	1.0	5.0	Isopropylbenzene	ND<2.5	1.0	5.0
Bromomethane	ND<2.5	1.0	5.0	p-isopropyl toluene	ND<2.5	1.0	5.0
n-Butyl benzene	ND<2.5	1.0	5.0	Methyl butyl ketone <sup>(c)</sup>	ND<2.5	1.0	5.0
sec-Butyl benzene	ND<2.5	1.0	5.0	Methylene Chloride <sup>(d)</sup>	ND<10	1.0	5.0
tert-Butyl benzene	ND<2.5	1.0	5.0	Methyl ethyl ketone <sup>(e)</sup>	ND<2.5	2.0	10
Carbon Disulfide	ND<2.5	1.0	5.0	Methyl isobutyl ketone <sup>(f)</sup>	ND<2.5	1.0	5.0
Carbon Tetrachloride	ND<2.5	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	—	1.0	5.0
Chlorobenzene	ND<2.5	1.0	5.0	Naphthalene	ND<5.0	5.0	5.0
Chloroethane	ND<2.5	1.0	5.0	n-Propyl benzene	ND<2.5	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(g)</sup>	ND<2.5	1.0	5.0	Styrene <sup>(h)</sup>	ND<2.5	1.0	5.0
Chloroform	ND<2.5	1.0	5.0	1,1,1,2-Tetrachloroethane	ND<2.5	1.0	5.0
Chloromethane	ND<2.5	1.0	5.0	1,1,2,2-Tetrachloroethane	ND<2.5	1.0	5.0
2-Chlorotoluene	ND<2.5	1.0	5.0	Tetrachloroethene	ND<2.5	1.0	5.0
4-Chlorotoluene	ND<2.5	1.0	5.0	Toluene <sup>(i)</sup>	ND<2.5	1.0	5.0
Dibromochloromethane	ND<2.5	1.0	5.0	1,2,3-Trichlorobenzene	ND<5.0	5.0	25
1,2-Dibromo-3-chloropropane	ND<2.5	2.0	10	1,2,4-Trichlorobenzene	ND<5.0	5.0	25
Dibromomethane	ND<2.5	1.0	5.0	1,1,1-Trichloroethane	ND<2.5	1.0	5.0
1,2-Dichlorobenzene	ND<2.5	1.0	5.0	1,1,2-Trichloroethane	ND<2.5	1.0	5.0
1,3-Dichlorobenzene	ND<2.5	1.0	5.0	Trichloroethene	65	1.0	5.0
1,4-Dichlorobenzene	ND<2.5	1.0	5.0	Trichlorofluoromethane	ND<2.5	1.0	5.0
Dichlorodifluoromethane	ND<2.5	1.0	5.0	1,2,3-Trichloropropane	ND<2.5	1.0	5.0
1,1-Dichloroethane	ND<2.5	1.0	5.0	1,2,4-Trimethylbenzene	ND<2.5	1.0	5.0
1,2-Dichloroethane	ND<2.5	1.0	5.0	1,3,5-Trimethylbenzene	ND<2.5	1.0	5.0
1,1-Dichloroethene	ND<2.5	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND<5.0	5.0	25
cis-1,2-Dichloroethene	43	1.0	5.0	Vinyl Chloride <sup>(n)</sup>	ND<2.5	1.0	5.0
trans-1,2-Dichloroethene	ND<2.5	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND<2.5	1.0	5.0
1,2-Dichloropropane	ND<2.5	1.0	5.0	<b>Comments: i</b>			
1,3-Dichloropropane	ND<2.5	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND<2.5	1.0	5.0	Dibromofluoromethane		114	
1,1-Dichloropropane	ND<2.5	1.0	5.0	Toluene-d8		100	
cis-1,3-Dichloropropene	ND<2.5	1.0	5.0	4-Bromofluorobenzene		101	

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPL extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08/01
	Client P.O:	Date Analyzed: 01/08-01/12/01

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	57403
Client ID	P14-20
Matrix	S

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<15	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(f)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(h)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<10	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(i)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	7.2	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(b)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane		106	
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8		106	
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene		107	

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08/01
	Client P.O:	Date Analyzed: 01/08-01/12/01

**Volatile Organics By GC/MS**

EPA method 8260

Lab ID	57404
Client ID	P14-30
Matrix	S


Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(d)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(e)</sup>	ND<15	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(i)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<10	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(l)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	17	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(h)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane			102
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8			108
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene			115

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08/01
	Client P.O:	Date Analyzed: 01/08-01/12/01

**Volatile Organics By GC/MS**

EPA method 8260	Lab ID	57405
	Client ID	P14-35
	Matrix	S

Compound	Concentration*	Reporting Limit		Compound	Concentration*	Reporting Limit	
		W	S			W	S
Acetone <sup>(b)</sup>	ND	5.0	25	trans-1,3-Dichloropropene	ND	1.0	5.0
Benzene	ND	1.0	5.0	Ethylene dibromide	ND	1.0	5.0
Bromobenzene	ND	1.0	5.0	Ethylbenzene	ND	1.0	5.0
Bromochloromethane	ND	1.0	5.0	Hexachlorobutadiene	ND	5.0	25
Bromodichloromethane	ND	1.0	5.0	Iodomethane	ND	1.0	5.0
Bromoform	ND	1.0	5.0	Isopropylbenzene	ND	1.0	5.0
Bromomethane	ND	1.0	5.0	p-Isopropyl toluene	ND	1.0	5.0
n-Butyl benzene	ND	1.0	5.0	Methyl butyl ketone <sup>(b)</sup>	ND	1.0	5.0
sec-Butyl benzene	ND	1.0	5.0	Methylene Chloride <sup>(c)</sup>	ND<15	1.0	5.0
tert-Butyl benzene	ND	1.0	5.0	Methyl ethyl ketone <sup>(i)</sup>	ND	2.0	10
Carbon Disulfide	ND	1.0	5.0	Methyl isobutyl ketone <sup>(g)</sup>	ND	1.0	5.0
Carbon Tetrachloride	ND	1.0	5.0	Methyl tert-Butyl Ether (MTBE)	---	1.0	5.0
Chlorobenzene	ND	1.0	5.0	Naphthalene	ND	5.0	5.0
Chloroethane	ND	1.0	5.0	n-Propyl benzene	ND	1.0	5.0
2-Chloroethyl Vinyl Ether <sup>(c)</sup>	ND	1.0	5.0	Styrene <sup>(k)</sup>	ND	1.0	5.0
Chloroform	ND	1.0	5.0	1,1,1,2-Tetrachloroethane	ND	1.0	5.0
Chloromethane	ND	1.0	5.0	1,1,2,2-Tetrachloroethane	ND	1.0	5.0
2-Chlorotoluene	ND	1.0	5.0	Tetrachloroethene	ND<10	1.0	5.0
4-Chlorotoluene	ND	1.0	5.0	Toluene <sup>(i)</sup>	ND	1.0	5.0
Dibromochloromethane	ND	1.0	5.0	1,2,3-Trichlorobenzene	ND	5.0	25
1,2-Dibromo-3-chloropropane	ND	2.0	10	1,2,4-Trichlorobenzene	ND	5.0	25
Dibromomethane	ND	1.0	5.0	1,1,1-Trichloroethane	ND	1.0	5.0
1,2-Dichlorobenzene	ND	1.0	5.0	1,1,2-Trichloroethane	ND	1.0	5.0
1,3-Dichlorobenzene	ND	1.0	5.0	Trichloroethene	ND	1.0	5.0
1,4-Dichlorobenzene	ND	1.0	5.0	Trichlorofluoromethane	ND	1.0	5.0
Dichlorodifluoromethane	ND	1.0	5.0	1,2,3-Trichloropropane	ND	1.0	5.0
1,1-Dichloroethane	ND	1.0	5.0	1,2,4-Trimethylbenzene	ND	1.0	5.0
1,2-Dichloroethane	ND	1.0	5.0	1,3,5-Trimethylbenzene	ND	1.0	5.0
1,1-Dichloroethene	ND	1.0	5.0	Vinyl Acetate <sup>(m)</sup>	ND	5.0	25
cis-1,2-Dichloroethene	ND	1.0	5.0	Vinyl Chloride <sup>(b)</sup>	ND	1.0	5.0
trans-1,2-Dichloroethene	ND	1.0	5.0	Xylenes, total <sup>(o)</sup>	ND	1.0	5.0
1,2-Dichloropropane	ND	1.0	5.0	<b>Comments:</b>			
1,3-Dichloropropane	ND	1.0	5.0	<b>Surrogate Recoveries (%)</b>			
2,2-Dichloropropane	ND	1.0	5.0	Dibromofluoromethane			106
1,1-Dichloropropene	ND	1.0	5.0	Toluene-d8			105
cis-1,3-Dichloropropene	ND	1.0	5.0	4-Bromofluorobenzene			107

\*water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) 2-propanone or dimethyl ketone; (c) (2-chloroethoxy) ethene; (d) 2-hexanone; (e) dichloromethane; (f) 2-butanone; (g) 4-methyl-2-pentanone or isopropylacetone; (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content; (k) ethenylbenzene; (l) methylbenzene; (m) acetic acid ethenyl ester; (n) chloroethene; (o) dimethylbenzenes.

DHS Certification No. 1644

Edward Hamilton, Lab Director





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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08-01/12/01
	Client P.O:	Date Analyzed: 01/08-01/12/01

**7 Oxygenated Volatile Organics By GC/MS**

EPA method 8260 modified

Lab ID	57394	57395	57403	57404	Reporting Limit	
Client ID	UST#2	P13	P14-20	P14-30		
Matrix	W	W	S	S	S	W
Compound	Concentration*				ug/kg	ug/L
Di-isopropyl Ether (DIPE)	ND	ND<2.5	ND	ND	5.0	1.0
Ethyl tert-Butyl Ether (ETBE)	ND	ND<2.5	ND	ND	5.0	1.0
Methyl-tert Butyl Ether (MTBE)	1.4	ND<2.5	ND	ND	5.0	1.0
tert-Amyl Methyl Ether (TAME)	ND	ND<2.5	ND	ND	5.0	1.0
tert-Butanol	ND	ND<12.5	ND	ND	25	5.0
Methanol	ND	ND<500	ND	ND	1000	200
Ethanol	ND	ND<125	ND	ND	250	50

**Surrogate Recoveries (%)**

Dibromofluoromethane	111	114	106	102	
Comments:	h	ij			

\* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis  
 (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content



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Advanced GeoEnvironmental 4005 North Wilson Way Stockton, CA 95205	Client Project ID: Continental Volvo	Date Sampled: 01/08/01
		Date Received: 01/08/01
	Client Contact: Bill Little	Date Extracted: 01/08-01/12/01
	Client P.O:	Date Analyzed: 01/08-01/12/01

**7 Oxygenated Volatile Organics By GC/MS**

EPA method 8260 modified

Lab ID	57405				Reporting Limit	
Client ID	P14-35				S	W
Matrix	S				ug/kg	ug/L
Compound	Concentration*				ug/kg	ug/L
Di-isopropyl Ether (DIPE)	ND				5.0	1.0
Ethyl tert-Butyl Ether (ETBE)	ND				5.0	1.0
Methyl-tert Butyl Ether (MTBE)	ND				5.0	1.0
tert-Amyl Methyl Ether (TAME)	ND				5.0	1.0
tert-Butanol	ND				25	5.0
Methanol	ND				1000	200
Ethanol	ND				250	50

**Surrogate Recoveries (%)**

Dibromofluoromethane	106					
Comments:						

\* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L  
 ND means not detected above the reporting limit; N/A means surrogate not applicable to this analysis  
 (h) lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content



### QC REPORT

Date: 01/07/01-01/08/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 121800				Instrument: GC-7			
Surrogate1	0.000	99.0	97.0	100.00	99	97	2.0
Xylenes	0.000	29.5	30.3	30.00	98	101	2.7
Ethyl Benzene	0.000	9.6	9.8	10.00	96	98	2.1
Toluene	0.000	9.8	10.0	10.00	98	100	2.0
Benzene	0.000	9.3	9.5	10.00	93	95	2.1
MTBE	0.000	9.7	9.5	10.00	97	95	2.1
GAS	0.000	100.3	103.0	100.00	100	103	2.7
SampleID: 121800				Instrument: GC-2 A			
Surrogate1	0.000	97.0	98.0	100.00	97	98	1.0
TPH (diesel)	0.000	6275.0	6300.0	7500.00	84	84	0.4

$$\% \text{ Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



## QC REPORT

Date: 01/07/01-01/08/01 Matrix: Soil

Extraction: TTLC

Compound	Concentration: mg/kg			%Recovery		RPD	
	Sample	MS	MSD	Amount Spiked	MS		MSD
SampleID: 121800			Instrument: GC-7				
Surrogate1	0.000	95.000	95.000	100.00	95	95	0.0
Xylenes	0.000	0.290	0.293	0.30	97	98	1.0
Ethyl Benzene	0.000	0.094	0.094	0.10	94	94	0.0
Toluene	0.000	0.093	0.097	0.10	93	97	4.2
Benzene	0.000	0.089	0.090	0.10	89	90	1.1
MTBE	0.000	0.105	0.114	0.10	105	114	8.2
GAS	0.000	0.998	1.007	1.00	100	101	0.9
SampleID: 121800			Instrument: GC-2 A				
Surrogate1	0.000	104.000	103.000	100.00	104	103	1.0
TPH (diesel)	0.000	263.000	300.000	300.00	88	100	13.1
SampleID: 122000			Instrument: IR-1				
TRPH	0.000	21.500	21.700	20.80	103	104	0.9

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



McCAMPBELL ANALYTICAL INC.

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560  
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## QC REPORT

### VOCs (EPA 8240/8260)

Date: 01/08/01-01/09/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L			%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS MSD	

SampleID: 11701

Instrument: GC-10

tert-Amyl Methyl Ether	0.000	109.0	108.0	100.00	109	108	0.9
Methyl tert-Butyl Ether	0.000	107.0	109.0	100.00	107	109	1.9
Ethyl tert-Butyl Ether	0.000	103.0	104.0	100.00	103	104	1.0
Di-isopropyl Ether	0.000	89.0	91.0	100.00	89	91	2.2
Surrogate	0.000	94.0	95.0	100.00	94	95	1.1
Toluene	0.000	94.0	92.0	100.00	94	92	2.2
Benzene	0.000	98.0	99.0	100.00	98	99	1.0
Chlorobenzene	0.000	101.0	103.0	100.00	101	103	2.0
Trichloroethane	0.000	85.0	83.0	100.00	85	83	2.4
1,1-Dichloroethene	0.000	123.0	121.0	100.00	123	121	1.6

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$



### QC REPORT

### VOCs (EPA 8240/8260)

Date: 01/08/01-01/09/01 Matrix: Soil

Extraction: N/A

Compound	Concentration: ug/kg			%Recovery		RPD
	Sample	MS	MSD	MS	MSD	

SampleID: 10801

Instrument: GC-10

Surrogate	0.000	102.0	102.0	100.00	102	102	0.0
tert-Amyl Methyl Ether	0.000	111.0	115.0	100.00	111	115	3.5
Methyl tert-Butyl Ether	0.000	113.0	113.0	100.00	113	113	0.0
Ethyl tert-Butyl Ether	0.000	106.0	108.0	100.00	106	108	1.9
Di-isopropyl Ether	0.000	93.0	94.0	100.00	93	94	1.1
Surrogate	0.000	101.0	99.0	100.00	101	99	2.0
Toluene	0.000	92.0	91.0	100.00	92	91	1.1
Benzene	0.000	97.0	96.0	100.00	97	96	1.0
Chlorobenzene	0.000	101.0	101.0	100.00	101	101	0.0
Trichloroethane	0.000	81.0	81.0	100.00	81	81	0.0
1,1-Dichloroethene	0.000	122.0	122.0	100.00	122	122	0.0

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



Advanced  
GeoEnvironmental, Inc.

4005 North Wilson Way - Stockton, California - 95205 - (209) 467-1006 - Fax (209) 467-1118

23904 ZAGE596

CHAIN OF CUSTODY RECORD

Date 01/08/01 Page 1 of 2

Client <u>Continental Values</u>	Project Manager <u>Bill Little</u>	Tests Required
	Phone Number <u>ABOVE</u>	
	Samplers: (Signature) <u>William Little</u>	
Project Name <u>Continental Values</u>		Invoice: AGE <input checked="" type="checkbox"/> Client <input type="checkbox"/>

Sample Number	Location Description	Date	Time	Sample Type			Solid	No. of Conts.	TAP-GLITEC	TAP-GLITEC	EPA 226D (All)	ALL ADDITIVES	Notes
				Water Comp.	Water Grab.	Air							
UST #2 H <sub>2</sub> O	UST #2 WELL	01/07/01	3:10		✓			3	X	X	X		57394
P13-H <sub>2</sub> O	P13-H <sub>2</sub> O 35'	01/08/01	2:15		✓			4	X	X	X		57395
P13-15			1:10				✓	1	X	X			57396
P13-20			1:15				✓	1	HOLD				57397
P13-25			1:20				✓	1	X	X			57398
P13-30			7:35				✓	1	HOLD				57399
P13-35			2:10				✓	1	X	X			57400

Relinquished by: (Signature) <u>William Little</u>	Received by: (Signature)	Normal TAT	Date/Time
Relinquished by: (Signature)	Received by: (Signature)		Date/Time
Relinquished by: (Signature)	Received by Mobile Laboratory for field analysis: (Signature)		Date/Time
Dispatched by: (Signature)	Date/Time	Received for Laboratory by: <u>Lina A. Butler</u>	Date/Time 7pm 01/08/01

Method of Shipment:	Special Instructions: <u>FAX</u>	ICE/ <input checked="" type="checkbox"/> <u>✓</u> GOOD CONDITION <input checked="" type="checkbox"/> <u>✓</u> HEAD SPACE ABSENT <input checked="" type="checkbox"/> <u>✓</u>	PRESERVATION APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> <u>✓</u>	VOASH ORG/METALS/OTHER	Laboratory Name <u>McC Campbell</u>	I hereby authorize the performance of the above indicated work. <u>William Little</u>
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