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Environmental Health



**Pilot Scale Vapor Extraction System Status Report for April 2010
160 Holmes Street, Livermore, California**

Date:
May 17, 2010

Project No.:
160

Prepared For:
Manwel and Samira Shuwayhat
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Kentfield, California 94904

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May 17, 2010
Project No.: 160

Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

SUBJECT: Pilot Scale Vapor Extraction System Status Report for April 2010, Fuel Leak Case No. RO0000324, 160 Holmes Street, Livermore, California

Dear Manwel and Samira Shuwayhat:

Allterra Environmental, Inc. (Allterra) has prepared this interim remedial action status report to document work conducted at the property located at 160 Holmes Street in Livermore, California (Site). This report documents field observations and data collected while conducting pilot scale system operation and maintenance during April of 2010.

Site Location and Description

The subject property is located at the northeast intersection of Holmes Street and Second Street, in Livermore, California (Figure 1). A Vallero fuel station currently occupies the Site and the surrounding area is primarily residential with some retail businesses along 1st and 2nd Streets. The approximate surface elevation of the site is 465 feet above mean sea level (MSL) and slopes to the northwest. Pertinent site features, including the locations of the former underground storage tanks (USTs), existing monitoring and extraction wells, and previous soil borings are presented in Figure 2.

Pilot Scale Vapor Extraction System (VES) Description

The VES consisted of a remediation compound area that includes a vapor extraction blower, electrical controls, and vapor abatement equipment, as well as subsurface conveyance piping and wellhead connections to extraction well EW-3. The layout of the VES is presented in Figure 2.

Vapor Extraction Well

Well EW-3 was used as the soil vapor extraction well. Well EW-3 was selected because it has a screen interval from 25 to 30 feet bgs, which spans the targeted contaminant smear zone. A previous pilot test completed using EW-3 indicated it was conducive for vapor extraction.

Remediation Compound

A temporary remediation compound was constructed along the northeastern edge of the property (Figure 2). The compound consisted of vapor extraction and off-gas abatement equipment with associated electrical controls and conveyance piping and two 6,500-gallon tanks to contain groundwater extracted from EW-3.

Groundwater Extraction

Over the last several months, groundwater elevations increased to approximately 23-27 feet below ground surface (bgs), which is the target area for soil vapor extraction. Therefore, to maximize performance of the SVE system, Allterra dewatered EW-3 to expose the fuel-impacted soil between 25 and 30 feet bgs. Extracted groundwater is contained in two 6,500-gallon tanks and discharged under wastewater discharge permit.

Pilot Scale Remediation System Operation and Maintenance (O&M) – April 2010

During April 2010, Allterra operated and maintained vapor and groundwater extraction equipment located at the Site. O&M field activities included collection of vapor and groundwater samples for laboratory analyses, recording system operation data (total flows and flow rates, monitoring well groundwater elevations, qualitative observations, etc.), and collecting data from observation wells. Field logs for O&M activities are included in Appendix A. System data, such as groundwater flow rates and groundwater sample results, are presented in Tables 1 through 4.

VES Operation and Data Collection – April 2010

For April 2010, remediation consisted of operating a VES that removed soil vapors from well EW-3. During April, the VES operated for approximately 25 days at an average extraction rate of approximately 6 standard cubic feet per minute (scfm). On April 5, 6, 7, 15, and 30 Allterra collected vapor samples from the influent and effluent vapor streams of the VES. Vapor samples were collected from sample ports in 1-liter tedlar sample bags. VES operating parameters and other general observations were measured routinely through the month. Sample analytical results are presented in Table 1 and VES operation data is presented in Table 3. Operation and Maintenance Field Logs are included in Appendix A.

Groundwater Extraction System Operation and Data Collection – April 2010

During April, the groundwater extraction system (GWES) removed approximately 7,023-gallons of groundwater from well EW-3 at an approximate flow rate of 2 gallons per minute (gpm). On April 27, 2010 the GWES extracted approximately 3,738-gallons of groundwater from EW-1 at an approximate flow rate of 10 gpm. Groundwater extraction from EW-1 and EW-3 combined resulted in approximately 10,761-gallons in April. On April 5, 15, 20, 27, and 29 Allterra collected groundwater stream samples from groundwater entering the storage tanks (GW-IN). GW-IN samples were collected to determine dissolved contaminant masses removed during groundwater extraction. Other general observations and GWES operating parameters were measured routinely through the month. Sample analytical results are presented in Table 2 and GWES operation data is presented in Tables 3 and 4. Operation and Maintenance Field Logs are included in Appendix A.

Laboratory Analyses – VES and GWES samples

Vapor samples from the VES and groundwater samples from the GWES were submitted under chain-of-custody protocol to McCampbell Analytical, Inc. of Pacheco, California, a state of California certified laboratory (ELAP #1644). Vapor and groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015C modified, and for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B. Analytical results from vapor samples are presented in Table 1, and analytical

results from groundwater samples are presented in Table 2. The certified analytical reports for the samples, including quality assurance and quality control (QA/QC) data, are included in Appendix B.

Pilot Scale Remediation System Operation and Maintenance Results for April

During April the VES removed approximately 45,936 cubic feet of soil vapor at an approximate flow rate of 6 standard cubic feet per minute (scfm). Vapor extraction data is presented in Tables 1, 3, 4, and 5. Sample analytical results from the VES influent (VES-IN) samples collected in April indicated TPHg at concentrations ranging from 170 to 2,100 micrograms per liter (µg/L), benzene at less than 1.0 to 3.6 µg/L, toluene at 9.6 to 72 µg/L, ethyl-benzene at 1.1 to 22 µg/L, xylenes at 7.2 to 190 µg/L, and MTBE at 130 to 420 µg/L. Sample analytical results from the VES effluent (VES-EFF) indicated a TPHg concentrations ranging from at less than 25 to 39 µg/L, benzene at less than 0.25 to 2.9 µg/L, toluene at less than 0.25 to 1.6, ethylbenzene at less than 25 to 0.46 µg/L, and xylenes at less than 0.25 to 4.1 µg/L. Concentrations of MTBE were at or below laboratory detection limits in effluent vapor samples. Analytical data from VES samples are presented in Table 1.

VES Mass Removal

During April, the VES removed approximately 45,936 cubic feet of soil vapor (Table 4). Based on soil vapor removal data and laboratory analytical results, the VES removed approximately 2.76 pounds of TPHg, 0.01 pounds of benzene, and 0.88 pounds of MTBE during April (Table 5).

GWES Operation Results for April

During April the GWES removed approximately 10,761-gallons of groundwater from extraction wells EW-1 and EW-3. Groundwater extraction data including flow rates and volumes is presented in Tables 3, 4, and 6. Groundwater was extracted from EW-3 from April 5th to 26th and 28th through the 30th. For one day, April 27, groundwater was extracted from EW-1. Analytical results from the system groundwater influent stream samples (GW-IN) collected on April 5, 15, 20, 27 (EW-1), and 29, 2010 are summarized below:

Sample ID	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<i>Extraction Well EW-3 (results in µg/L)</i>							
GW-IN	4/5/10	78,000	550	1,800	2,100	16,000	310,000
	4/15/10	33,000	470	1,900	1,400	6,300	300,000
	4/20/10	30,000	260	1,300	840	7,400	170,000
	4/29/10	30,000	300	1,500	1,000	5,300	190,000
<i>Extraction Well EW-1 (results in µg/L)</i>							
GW-IN	4/27/10	1,900	19	69	41	350	3,500

Additionally, analytical data from GWES samples are presented in Table 3 and certified analytical reports are attached as Appendix B.

GWES Mass Removal

During April 2010, the GWES removed approximately 10,761-gallons of groundwater (Table 4). Based on the volume of groundwater extracted and laboratory analytical results, the GWES removed approximately 2.56 pounds of TPHg, 0.021 pounds of benzene, and 14.3 pounds of MTBE during April 2010 (Table 6).

Mass Removal – VES and GWES

During April 2010 approximately 5.32 pounds of TPHg, 0.027 pounds of benzene, and 15.18 pounds of MTBE were removed from the Site. Combined cumulative mass removal from VES and GWES is summarized in Table 7.

Conclusions

Based on data collected during April 2010, Allterra concludes the following:

- Water levels in site wells were the highest they have been in several years. Therefore, groundwater extraction was used in conjunction with vapor extraction to maximize contaminant removal.
- The VES removed approximately 45,936 cubic feet of soil vapor during this quarter, resulting in the removal of approximately 2.76 pounds of vapor phase TPHg, 0.0069 pounds of vapor phase benzene, and 0.88 pounds of vapor phase MTBE.
- The GWES removed approximately 10,671 gallons of groundwater during this quarter, resulting in the removal of approximately 2.56 pounds of TPHg, 0.021 pounds of benzene, and 14.30 pounds of MTBE.
- In April, cumulative mass removed in both phases is approximately 5.32 pounds of TPHg, 0.028 pounds of benzene, and 15.18 pound of MTBE.
- Vapor and groundwater extraction from EW-3 appears to be effective at extracting contaminant mass from the source area.

Recommendations

Based on the conclusions presented above, Allterra recommends the following:

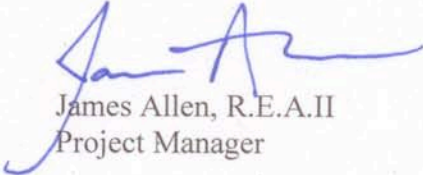
- Continue operation of VES and GWES equipment for the duration of the quarter.

Limitations


Allterra prepared this report for the use of Manwel and Samira Shuwayhat, Alameda County Health Services, and RWQCB in evaluating groundwater quality at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this report are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra's services have been performed in accordance with environmental principles generally accepted at this time and location.

Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.



James Allen, R.E.A.II
Project Manager



Michael Killoran, P.G. 6670
Senior Geologist

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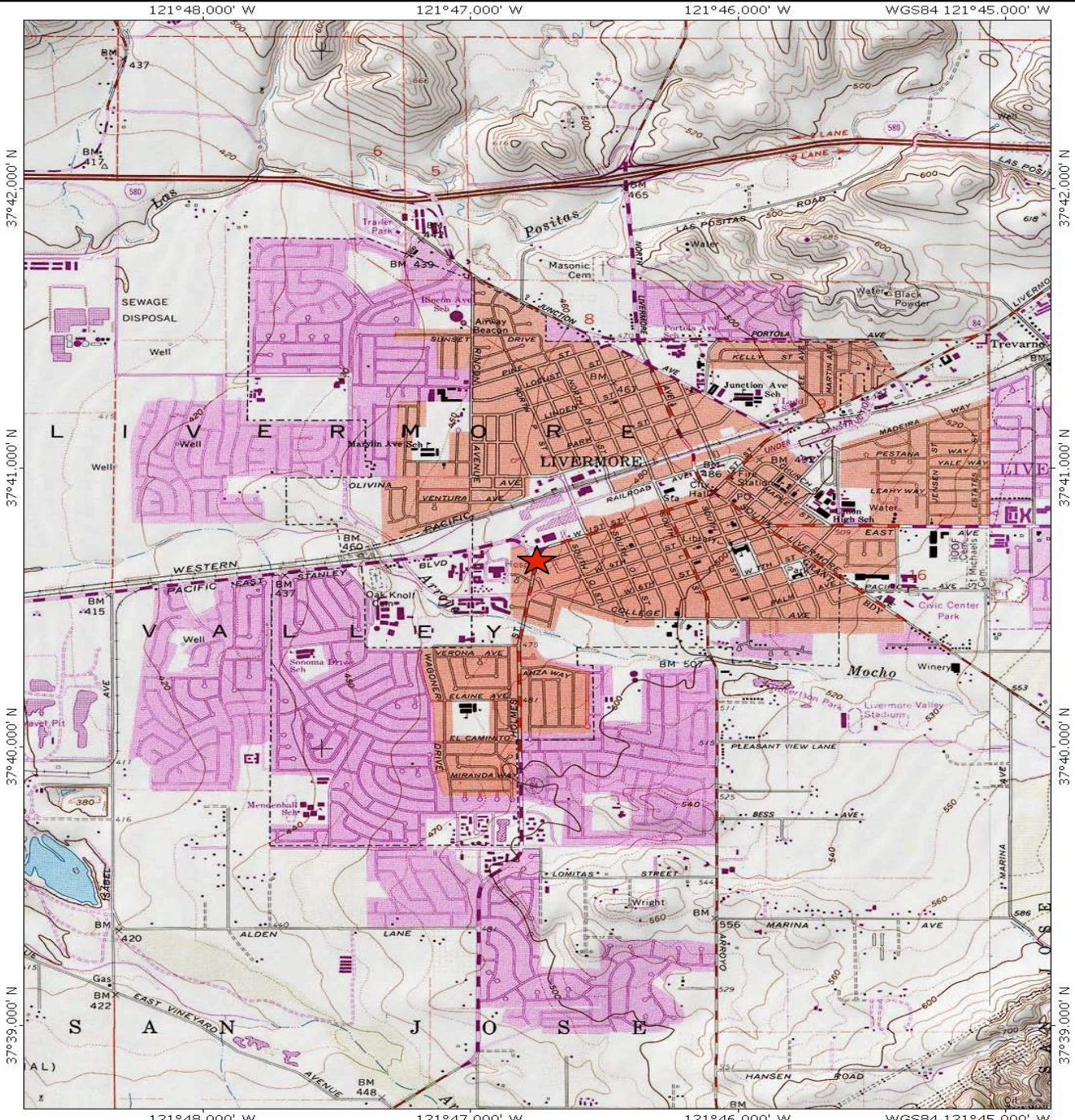
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cc: Mr. Jerry Wickham, Alameda County Department of Health Services



FIGURES 1 – 2



TN $\frac{1}{15^\circ}$ MN
 0 1000 FEET 0 500 1000 METERS
 121°48.000' W 121°47.000' W 121°46.000' W WGS84 121°45.000' W

Site Vicinity Map
 Livermore Gas and Minimart
 160 Holmes Street
 Livermore, California

Figure 1

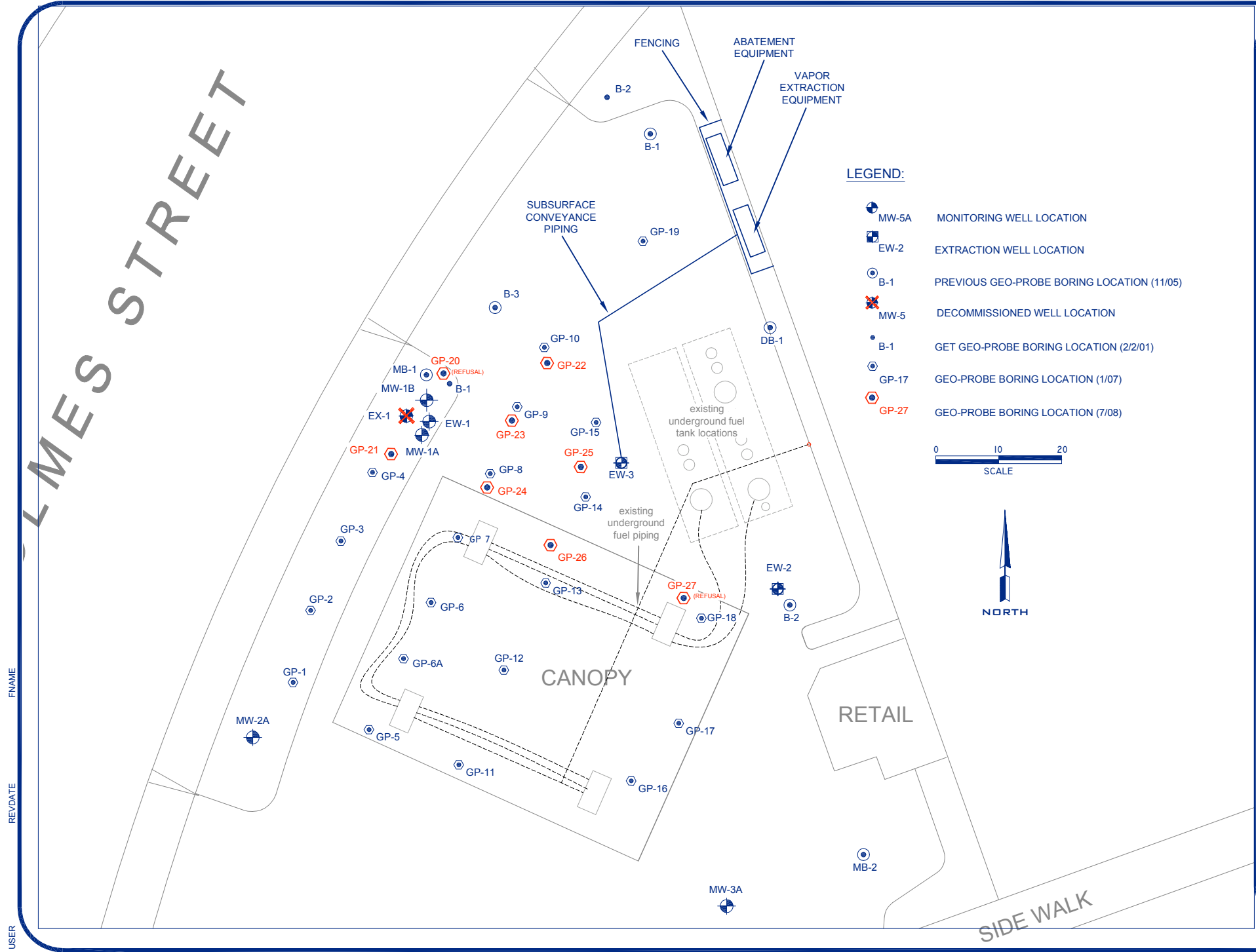
4/8/10

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USER

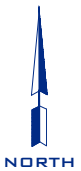
REV/DATE

FNAME



LEGEND:

- MW-5A MONITORING WELL LOCATION
- EW-2 EXTRACTION WELL LOCATION
- B-1 PREVIOUS GEO-PROBE BORING LOCATION (11/05)
- MW-5 DECOMMISSIONED WELL LOCATION
- B-1 GET GEO-PROBE BORING LOCATION (2/2/01)
- GP-17 GEO-PROBE BORING LOCATION (1/07)
- GP-27 GEO-PROBE BORING LOCATION (7/08)



General Notes

stamp

160 HOLMES STREET
SOIL AND GROUNDWATER INVESTIGATION
AND REMEDIATION PROJECT



0	DRAFT/REVIEW	9/8
No.	Revision/Issue	Date

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Sheet Name and Address
PILOT SCALE VAPOR EXTRACTION SYSTEM
 160 HOLMES STREET
 LIVERMORE, CALIFORNIA

Project	160	Sheet FIGURE 2
Date	9-8-08	
Scale	see drawing	

TABLES 1-7

Table 1
Vapor Extraction Sample Results
 160 Holmes Street, Livermore, California

Sample ID	Sample Date	Total Petroleum Hydrocarbons as (µg/L)	Aromatic Volatile Organic Compounds (µg/L)				
		TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
<i>Extraction Well EW-3</i>							
VES-IN	4/5/10	770	2.3	26	5.5	47	310
	4/6/10	2,100	3.6	72	22	190	420
	4/7/10	1,500	3.3	57	19	110	400
	4/15/10	270	2.7	14	1.3	10	270
	4/30/10	170	<1.0	9.6	1.1	7.2	130
<i>Extraction Well EW-1</i>							
VES-EFF	4/5/10	39	2.6	1.6	0.46	4.1	<2.5
	4/6/10	25	2.9	1.6	0.36	2.7	<2.5
	4/7/10	33	1.7	1.2	<0.25	1.6	<2.5
	4/15/10	<25	0.98	0.48	<25	0.76	<2.5
	4/29/10	<25	<0.25	<0.25	<0.25	<0.25	<2.5
VES-IN	4/27/10*	<25	<0.25	0.31	<0.25	0.94	4.2

Notes and Definitions:

* = Vapor sample collected from well EW-3 while groundwater was extracted from well EW-1
 VES-IN = vapor extraction system influent sample
 VES-EFF = vapor extraction system effluent sample
 TPHg = Total Petroleum Hydrocarbons as gasoline
 MTBE = Methyl tertiary butyl ether
 µg/L = Micrograms per liter
 TPHg samples analyzed using EPA Method 8015Cm, BTEX and MTBE samples analyzed using EPA Method 8021b.

Table 2
Groundwater Extraction Sample Results
 160 Holmes Street, Livermore, California

Sample ID	Sample Date	Total Petroleum Hydrocabons as	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
		Gasoline					
<i>Extraction Well EW-3</i>							
GW-IN	4/5/10	78,000	550	1,800	2,100	16,000	310,000
	4/15/10	33,000	470	1,900	1,400	6,300	300,000
	4/20/10	30,000	260	1,300	840	7,400	170,000
	4/29/10	30,000	300	1,500	1,000	5,300	190,000
<i>Extraction Well EW-1</i>							
GW-IN	4/27/10	1,900	19	69	41	350	3,500

Notes and Definitions:

-- = not analyzed

All results in micrograms per liter

MTBE = Methyl tertiary butyl ether

GW-IN = Sample collected from influent groundwater stream

GW-MID = Sample collected from mid-poiont groundwater stream

GW-EFF = Sample collected from effluent groundwater stream

Samples analyzed for TPHg by EPA Method 8015CM, BTEX/MTBE by EPA Method 8021B.

Table 3
Pilot Scale Remediation System Operational Data
 160 Holmes Street, Livermore, California

Time	VES				GWES			
	Average Vapor Flow Rate (scfm)	Days Operated	Wells In Use	Date Added to VES	Average Flow Rate (gpm)	Total Flow (gallons)	Wells In Use	Date Added to GWTS
4/5/10 to 4/30/10	6	25	EW-3*	4/5/10	2	10,761	EW-3*	4/5/10

Notes:

scfm = Standard cubic feet per minute

gpm = gallons per minute

Total flow = gallons processed through system

* = On 4/27/10 groundwater was extracted from EW-1

Table 4
Pilot Scale Remediation System Flow Volumes
 160 Holmes Street, Livermore, California

Date	Quarter/ Month	Vapor Data		Groundwater Data		Notes
		Quarter's/Month's Flow Volume (cubic feet)	Cumulative Flow Volume (cubic feet)	Quarter's/Month's Flow Volume (gallons)	Cumulative Flow Volume (gallons)	
4/5/10	April	45,936	45,936	7,023	10,761	Groundwater extracted from EW-3 on April 5 to April 26 and April 28 to April 30. 3,738 gallons of groundwater extracted from EW-1 on April 27.
				3,738		

Notes:

SV = Soil vapor

GW = Groundwater

Table 5
Pilot Scale Remediation System – Vapor Phase Contaminant Mass Removal Data
 441 Leigh Avenue, Los Gatos, California

Date	Average Influent Concentrations			Cubic Feet Processed		Mass Removed (pounds)					
	TPHg	Benzene	MTBE	Quarter (or Month)	Total	Quarter (or Month) Total			Cumulative Total		
						TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
April 2010	962	2.4	306	41,544	41,544	2.76	0.0069	0.88	2.76	0.0069	0.88

Definitions and Notes:

All concentrations listed in micrograms per liter

All masses listed in pounds (lb)

TPHg = total petroleum hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

If multiple samples were collected the averaged concentration was used to calculate mass removed

Table 6
Pilot Scale Remediation System – Dissolved Phase Contaminant Mass Removal Data
 160 Holmes Street, Livermore, California

Date	Influent Concentration (average from Monthly Samples)			Gallons Processed		Mass Removed (pounds)					
	TPHg	Benzene	MTBE	Quarterly/ Monthly	Total	Quarter/ Month Total			Cumulative Total		
						TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
April 2010	42,750	395	242,500	7,023 (EW-3)	10,761	2.50	0.02	14.19	2.56	0.021	14.30
	1,900*	19*	3,500*	3,738 (EW-1)		0.06*	0.0006*	0.11*			

Definitions and Notes:

All concentrations listed in micrograms per liter (µg/L)

All masses listed in pounds (lb)

* = Concentrations and masses removed were calculated using extraction and lab data from EW-1 on April 27, 2010

Table 7
Pilot Scale Remediation System – Total Contaminant Mass Removal Data
 160 Holmes Street, Livermore, California

Date	Mass Removed (pounds)					
	Quarter/ Month Total			Cumulative Total		
	TPHg	Benzene	MTBE	TPHg	Benzene	MTBE
April 2010	5.32	0.028	15.18	5.32	0.028	15.18

Definitions and Notes:

All concentrations listed in micrograms per liter ($\mu\text{g/L}$)

All masses listed in pounds (lb)

GWTS = Groundwater extraction and treatment system

APPENDIX A
O&M Field Logs



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA / JR

DATE: 4/5/10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8408.4

Battery Status Good

IC-Engine at 40-Inches Water (Yes) No

IC-Engine Water Knockout (% full): 0%

VES Data	
Manometer Readings	VES-IN -40 in H ₂ O
	VES-EFF —
	EW-3 -40 in H ₂ O
Vapor Flow Rate	VES-IN 400 FPM

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 2.0 RPM

Tank Level (% Full) 0%

Totalizer Reading ~~356.91~~ 356.91⁴⁰

Influent Groundwater Stream

Product Odor (faint/strong) STRONG

Turbidity LOW

pH —

Color Clear

Sheen —

Notes

Groundwater Sampling

EW-3 (influent) ✓ 10:00

Tank Sample

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Overcast

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes —

Sample Collection

VES-IN 1 BAG

VES-EFF 1 BAG

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B			
MW-1A			
EW-1			
EW-2			

Depth to Water

Onsite Wells

MW-1A	<u>25.64</u>	EW-1	<u>26.10</u>
MW-1B	<u>25.62</u>	EW-2	<u>26.28</u>
MW-2A	<u>25.52</u>	EW-3	<u>26.09</u>
MW-3A	<u>26.14</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off ✓

IC Engine locked ✓

Wells secure ✓

Equipment secure ✓

GW piping secure ✓

Tank ladder removed ✓

Site cleared ✓



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: EA / DO

DATE: 4-6-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8412.2

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	-11.7 In H ₂ O
	VES-EFF	<u> </u>
	EW-3	-11.3 in/H ₂ O
Vapor Flow Rate	VES-IN	350 ft/min

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 2.13 g/min

Tank Level (% Full) ~5%

Totalizer Reading 3569190 Gal

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity Low

pH

Color Clear

Sheen N

Notes

Groundwater Sampling

EW-3 (influent) NA

Tank Sample NA

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition Good

Piping condition good

IC Engine Condition good

Misc. Notes Filled propane

Sample Collection

VES-IN

VES-EFF

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>25.66</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MW-1A	<u>25.70</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EW-1	<u>26.15</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EW-2	<u>24.16</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Depth to Water

Onsite Wells

MW-1A	<u>25.70</u>	EW-1	<u>26.15</u>
MW-1B	<u>25.66</u>	EW-2	<u>24.16</u>
MW-2A	<u>23.38</u>	EW-3	<u>25.90</u>
MW-3A	<u>24.00</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off

IC Engine locked

Wells secure

Equipment secure

GW piping secure

Tank ladder removed

Site cleared

VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO/EA

DATE: 4-7-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8417.8

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	<u>-10.5</u>
	VES-EFF	<u>—</u>
	EW-3	<u>-10.2</u>
Vapor Flow Rate	VES-IN	<u>300 ft/min</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate .75 g/min

Tank Level (% Full) ~ 5%

Totalizer Reading 3569392

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity low

pH —

Color clear

Sheen N

Notes

Groundwater Sampling

EW-3 (influent) NA

Tank Sample NA

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes End of Black hose bent/leak

Sample Collection

VES-IN	<input checked="" type="checkbox"/>
VES-EFF	<input checked="" type="checkbox"/>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>25.6</u>	EW-1	<u>26.05</u>
MW-1B	<u>25.6</u>	EW-2	<u>26.25</u>
MW-2A	<u>25.4</u>	EW-3	<u>26.00</u>
MW-3A	<u>25.1</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<u>(Key)</u>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>
<u>Propane tanks</u>	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-8-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8622.0

Battery Status good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	<u>-11.3</u>
	VES-EFF	<u>—</u>
	EW-3	<u>-11.1</u>
Vapor Flow Rate	VES-IN	<u>400 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate

Tank Level (% Full) 5%

Totalizer Reading 8569521

Influent Groundwater Stream

Product Odor (faint/strong) strong

Turbidity low

pH —

Color clear

Sheen none

Notes —

Groundwater Sampling

EW-3 (influent) Ø

Tank Sample Ø

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition good

Piping condition good

IC Engine Condition good

Misc. Notes —

Sample Collection

VES-IN Ø

VES-EFF Ø

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>
MW-1A	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>
EW-1	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>
EW-2	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>

Depth to Water

Onsite Wells

MW-1A	<u>25.42</u>	EW-1	<u>25.97</u>
MW-1B	<u>25.48</u>	EW-2	<u>26.16</u>
MW-2A	<u>25.38</u>	EW-3	<u>25.75</u>
MW-3A	<u>26.62</u>		

Offsite Wells

MW-7A	<u> </u>	MW-4A	<u> </u>
MW-7B	<u> </u>	MW-9A	<u> </u>
MW-7C	<u> </u>	MW-9B	<u> </u>
MW-7A	<u> </u>	MW-5A	<u> </u>
MW-7B	<u> </u>	MW-5B	<u> </u>

Departure Checklist

IC Engine off	<u>✓</u>
IC Engine locked	<u>✓</u>
Wells secure	<u>✓</u>
Equipment secure	<u>✓</u>
GW piping secure	<u>✓</u>
Tank ladder removed	<u>✓</u>
Site cleared	<u>✓</u>



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-9-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8426.7

Battery Status good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): Ø

VES Data

Manometer Readings	VES-IN	<u>-11.1 in H₂O</u>
	VES-EFF	<u>-</u>
	EW-3	<u>-11.3 in H₂O</u>
Vapor Flow Rate	VES-IN	<u>380 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate	<u>2.1 gpm</u>
Tank Level (% Full)	<u>10%</u>
Totalizer Reading	<u>3569,759</u>

Influent Groundwater Stream

Product Odor (faint/strong)	<u>Strong</u>
Turbidity	<u>low</u>
pH	<u>-</u>
Color	<u>clear</u>
Sheen	<u>-</u>
Notes	<u>-</u>

Groundwater Sampling

EW-3 (influent)	<u>Ø</u>
Tank Sample	<u>Ø</u>

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	<u>Sunny</u>
Tank Condition	<u>good</u>
Piping condition	<u>good</u>
IC Engine Condition	<u>good</u>
Misc. Notes	<u>filled propane</u>

Rill switch left on (hours cont.)

Sample Collection

VES-IN	<u>Ø</u>
VES-EFF	<u>Ø</u>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>Ø</u>		
MW-1A	<u>Ø</u>		
EW-1	<u>Ø</u>		
EW-2	<u>Ø</u>		

Depth to Water

Onsite Wells

MW-1A	<u>25.47</u>	EW-1	<u>25.91</u>
MW-1B	<u>25.42</u>	EW-2	<u>26.09</u>
MW-2A	<u>25.33</u>	EW-3	<u>pump on</u>
MW-3A	<u>25.95</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: 4-12-10 EA

DATE:

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8441.1

Battery Status low

IC-Engine at 40-Inches Water (Yes) No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	-11.0 In H ₂ O
	VES-EFF	-
	EW-3	-11.1 In H ₂ O
Vapor Flow Rate	VES-IN	375 f/m

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate	2.0
Tank Level (% Full)	25%
Totalizer Reading	35 70615

Influent Groundwater Stream

Product Odor (faint/strong)	strong
Turbidity	low
pH	-
Color	clear
Sheen	-
Notes	-

Groundwater Sampling

EW-3 (influent)	-
Tank Sample	-

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	Rainy
Tank Condition	good
Piping condition	good
IC Engine Condition	good
Misc. Notes	No depth to water meter

Sample Collection

VES-IN	✓
VES-EFF	✓

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	0	0	0
MW-1A	0	0	0
EW-1	0	0	0
EW-2	0	0	0

Depth to Water

Onsite Wells

MW-1A		EW-1	
MW-1B		EW-2	
MW-2A		EW-3	
MW-3A			

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	
IC Engine locked	
Wells secure	
Equipment secure	
GW piping secure	
Tank ladder removed	
Site cleared	

Propane tanks



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-13-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 08447.4

Battery Status Bad-Replaced → Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	<u>-10.5 In H₂O</u>
	VES-EFF	<u>0</u>
	EW-3	<u>-11.0 In H₂O</u>
Vapor Flow Rate	VES-IN	<u>300 f/min</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 1.40 gal/min

Tank Level (% Full) ~20%

Totalizer Reading 3570983

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity Low

pH -

Color Clear

Sheen -

Notes -

Groundwater Sampling

EW-3 (influent) -

Tank Sample -

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	<u>Cloudy</u>
Tank Condition	<u>Good</u>
Piping condition	<u>Good</u>
IC Engine Condition	<u>Good</u>
Misc. Notes	<u>Replaced Battery, No Samples taken</u>

Sample Collection

VES-IN None

VES-EFF None

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>23.10</u>	EW-1	<u>23.55</u>
MW-1B	<u>23.08</u>	EW-2	<u>23.73</u>
MW-2A	<u>23.00</u>	EW-3	<u>-</u>
MW-3A	<u>23.57</u>		

Offsite Wells

MW-7A	<u> </u>	MW-4A	<u> </u>
MW-7B	<u> </u>	MW-9A	<u> </u>
MW-7C	<u> </u>	MW-9B	<u> </u>
MW-7A	<u> </u>	MW-5A	<u> </u>
MW-7B	<u> </u>	MW-5B	<u> </u>

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>
<u>Prepare tanks</u>	<input checked="" type="checkbox"/>
<u>Battery</u>	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-14-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8451.2

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data		at 10:00 am	at 2:00 pm
Manometer Readings	VES-IN	<u>-49 in H₂O</u>	<u>-11.5 in/H₂O</u>
	VES-EFF	<u>—</u>	<u>—</u>
	EW-3	<u>-50.8 in H₂O</u>	<u>-11.1 in/H₂O</u>
Vapor Flow Rate	VES-IN	<u>350 ft³/min</u>	<u>400 ft³/min</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 1.67 g/min

Tank Level (% Full) ~20%

Totalizer Reading 3571211 Gal

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity low

pH —

Color clear

Sheen —

Notes —

Groundwater Sampling

EW-3 (influent) NA

Tank Sample NA

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes VES Data taken twice,
One at start of day one at end.
Higher at start

Sample Collection

VES-IN None

VES-EFF None

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>23.1</u>	EW-1	<u>23.53</u>
MW-1B	<u>23.00</u>	EW-2	<u>23.7</u>
MW-2A	<u>22.95</u>	EW-3	<u>23.5</u>
MW-3A	<u>23.55</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off

IC Engine locked

Wells secure

Equipment secure

GW piping secure

Tank ladder removed

Site cleared

Propane tanks

Battery



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: JTZ

DATE: 4-15-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8450.1

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data		
Manometer Readings	VES-IN	<u>-41.6 in H₂O</u>
	VES-EFF	<u>————</u>
	EW-3	<u>-41.6 in H₂O</u>
Vapor Flow Rate	VES-IN	<u>300 CFM 2" pipe</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 2.24 GPM
 Tank Level (% Full) 1/2 Full
 Totalizer Reading 3,571.593

Influent Groundwater Stream

Product Odor (faint/strong) STRONG
 Turbidity LOW
 pH —
 Color clear
 Sheen NO
 Notes

Groundwater Sampling

EW-3 (influent) 3 VOA
 Tank Sample ————

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny 60° F
 Tank Condition Good
 Piping condition Good
 IC Engine Condition Fair
 Misc. Notes Vacuum Gauge in-op

- VES-IN SAMPLE COLLECTED AT well head.
- No Depth To water meter.

Sample Collection

VES-IN 1 bag
 VES-EFF 1 bag

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	—	—	—
MW-1A	—	—	—
EW-1	—	—	—
EW-2	—	—	—

Depth to Water

Onsite Wells

MW-1A		EW-1	
MW-1B		EW-2	
MW-2A		EW-3	
MW-3A			

Offsite Wells

MW-7A	—	MW-4A	—
MW-7B	—	MW-9A	—
MW-7C	—	MW-9B	—
MW-7A	—	MW-5A	—
MW-7B	—	MW-5B	—

Departure Checklist

IC Engine off
 IC Engine locked
 Wells secure
 Equipment secure
 GW piping secure
 Tank ladder removed
 Site cleared



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-16-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8462.2

Battery Status good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	<u>-37.8</u>
	VES-EFF	<u>-</u>
	EW-3	<u>-38.2</u>
Vapor Flow Rate	VES-IN	<u>300 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate -60%
 Tank Level (% Full) -2 gpm
 Totalizer Reading 3,571,748

Influent Groundwater Stream

Product Odor (faint/strong) strong
 Turbidity low
 pH -
 Color clear
 Sheen
 Notes -

Groundwater Sampling

EW-3 (influent)
 Tank Sample

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	<u>Sunny</u>
Tank Condition	<u>good</u>
Piping condition	<u>good</u>
IC Engine Condition	<u>good</u>
Misc. Notes	<u>P gauge working again sporadically</u>

Sample Collection

VES-IN	<input type="checkbox"/>
VES-EFF	<input checked="" type="checkbox"/>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B			
MW-1A			
EW-1			
EW-2			

Depth to Water

Onsite Wells

MW-1A	<u> </u>	EW-1	<u> </u>
MW-1B	<u> </u>	EW-2	<u> </u>
MW-2A		EW-3	
MW-3A			

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-19-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8478.8

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	
	VES-EFF	
	EW-3	
Vapor Flow Rate	VES-IN	

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate ~2 GPM
 Tank Level (% Full) ~75%
 Totalizer Reading 3,572,806

Influent Groundwater Stream

Product Odor (faint/strong) _____
 Turbidity _____
 pH _____
 Color _____
 Sheen _____
 Notes _____

Groundwater Sampling

EW-3 (influent) _____
 Tank Sample _____

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny
 Tank Condition Good
 Piping condition Good
 IC Engine Condition Good
 Misc. Notes clutch on IC not working,

shut down, started working @ 1:30 PM

Sample Collection

VES-IN	
VES-EFF	

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B			
MW-1A			
EW-1			
EW-2			

Depth to Water

Onsite Wells

MW-1A		EW-1	
MW-1B		EW-2	
MW-2A		EW-3	
MW-3A			

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	
IC Engine locked	
Wells secure	
Equipment secure	
GW piping secure	
Tank ladder removed	
Site cleared	



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-22-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8482.0

Battery Status Good

IC-Engine at 40-Inches Water (Yes) No

IC-Engine Water Knockout (% full): 2

VES Data

Manometer Readings	VES-IN	<u>-40 in H₂O</u>
	VES-EFF	<u>-</u>
	EW-3	<u>-40 in H₂O</u>
Vapor Flow Rate	VES-IN	<u>400</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 2.25 GPM

Tank Level (% Full) 75%

Totalizer Reading 3.575.121

Influent Groundwater Stream

Product Odor (faint/strong) STRONG

Turbidity LOW

pH 6.53

Color Clear

Sheen slight

Notes

Groundwater Sampling

EW-3 (influent) 3 VOA

Tank Sample 3 VOA

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Cloudy/rain

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes Replaced Hose Adapter.

Sample Collection

VES-IN	<u>Water (Grey)</u>
VES-EFF	<u>Water (Grey)</u>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>25.06</u>	EW-1	<u>25.5</u>
MW-1B	<u>24.95</u>	EW-2	<u>25.62</u>
MW-2A	<u>24.85</u>	EW-3	<u>25.5</u>
MW-3A	<u>25.45</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>
<u>Dropare tanks</u>	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-21-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8487.6

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	<u>-37.2 in H₂O</u>
	VES-EFF	<u>---</u>
	EW-3	<u>-36.9 in H₂O</u>
Vapor Flow Rate	VES-IN	<u>350 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate ~~2~~ 2 gpm

Tank Level (% Full) 80%

Totalizer Reading 3,573,545

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity low

pH ---

Color clear

Sheen ---

Notes ---

Groundwater Sampling

EW-3 (influent) ---

Tank Sample ---

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? cloudy / rain

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes

Sample Collection

VES-IN None

VES-EFF None

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>24.95</u>	EW-1	<u>25.4</u>
MW-1B	<u>24.85</u>	EW-2	<u>25.5</u>
MW-2A	<u>25.75</u>	EW-3	<u>25.4</u>
MW-3A	<u>24.37</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-22-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8492.4

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	<u>-37.0</u>
	VES-EFF	<u>0</u>
	EW-3	<u>-38.2</u>
Vapor Flow Rate	VES-IN	<u>380 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 1.8 GPM

Tank Level (% Full) ~80%

Totalizer Reading 3573721

Influent Groundwater Stream

Product Odor (faint/strong) Strong

Turbidity low

pH -

Color clear

Sheen 0

Notes 0

Groundwater Sampling

EW-3 (influent)

Tank Sample

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes

Sample Collection

VES-IN 0

VES-EFF 0

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0.0</u>	<u>0.0</u>
MW-1A	<u>0</u>	<u>0.0</u>	<u>0.0</u>
EW-1	<u>0</u>	<u>0.0</u>	<u>0.0</u>
EW-2	<u>0</u>	<u>0.0</u>	<u>0.0</u>

Depth to Water

Onsite Wells

MW-1A	<u>24.85</u>	EW-1	<u>25.29</u>
MW-1B	<u>24.78</u>	EW-2	<u>25.44</u>
MW-2A	<u>24.70</u>	EW-3	<u>25.12</u>
MW-3A	<u>25.32</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: JA

DATE: 4-23-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8498.6

Battery Status good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

Sample Collection

VES-IN

VES-EFF

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B 0.0

MW-1A 0.0

EW-1 0.6

EW-2 0.0

Depth to Water

Onsite Wells

MW-1A 24.92 EW-1 25.38

MW-1B 24.87 EW-2 25.53

MW-2A 24.77 EW-3 -

MW-3A 25.39

Offsite Wells

MW-7A MW-4A

MW-7B MW-9A

MW-7C MW-9B

MW-7A MW-5A

MW-7B MW-5B

VES Data

Manometer Readings VES-IN -38.9 In H₂O

VES-EFF

EW-3

Vapor Flow Rate VES-IN

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate

Tank Level (% Full)

Totalizer Reading 374,270

Influent Groundwater Stream

Product Odor (faint/strong) strong

Turbidity low

pH 6

Color clear

Sheen -

Notes -

Groundwater Sampling

EW-3 (influent)

Tank Sample

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?

Tank Condition

Piping condition

IC Engine Condition

Misc. Notes Tank delivered @ 1:00 PM

Departure Checklist

IC Engine off

IC Engine locked

Wells secure

Equipment secure

GW piping secure

Tank ladder removed

Site cleared



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-24-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8502.2

Battery Status Good

IC-Engine at 40-Inches Water (Yes) No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	-38.2
	VES-EFF	-
	EW-3	-39.1
Vapor Flow Rate	VES-IN	380 f/m

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate	1.8 GPM
Tank Level (% Full)	95%
Totalizer Reading	3,574,609

Influent Groundwater Stream

Product Odor (faint/strong)	strong
Turbidity	low
pH	8
Color	brn
Sheen	8
Notes	

Groundwater Sampling

EW-3 (influent)	
Tank Sample	

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	Sunny
Tank Condition	good
Piping condition	good
IC Engine Condition	good
Misc. Notes	filled all propane tanks 12-1 AM

Sample Collection

VES-IN	✓
VES-EFF	✓

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	0.0	—
MW-1A	0.0	—
EW-1	0.0	—
EW-2	0.0	—

Depth to Water

Onsite Wells

MW-1A	24.96	EW-1	25.40
MW-1B	24.91	EW-2	25.55
MW-2A	24.79	EW-3	—
MW-3A	25.43		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	✓
IC Engine locked	✓
Wells secure	✓
Equipment secure	✓
GW piping secure	✓
Tank ladder removed	✓
Site cleared	✓



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: A

DATE: 4-26-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8512.6

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data	
Manometer Readings	VES-IN
	VES-EFF
	EW-3
Vapor Flow Rate	VES-IN

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 2.6 GPM
 Tank Level (% Full) ~10%
 Totalizer Reading 3,575,400

Influent Groundwater Stream

Product Odor (faint/strong) straws
 Turbidity low
 pH 8
 Color brn
 Sheen 8
 Notes 8

Groundwater Sampling

EW-3 (influent)
 Tank Sample

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny
 Tank Condition good
 Piping condition good
 IC Engine Condition good
 Misc. Notes

Sample Collection

VES-IN
 VES-EFF

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0.0</u>		
MW-1A	<u>0.0</u>		
EW-1	<u>0.0</u>		
EW-2	<u>0.0</u>		

Depth to Water

Onsite Wells

MW-1A	<u>24.78</u>	EW-1	<u>25.24</u>
MW-1B	<u>24.70</u>	EW-2	<u>25.38</u>
MW-2A	<u>24.60</u>	EW-3	
MW-3A	<u>25.22</u>		

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off
 IC Engine locked
 Wells secure
 Equipment secure
 GW piping secure
 Tank ladder removed
 Site cleared



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-27-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8518.6

Battery Status Dead / charge

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0

VES Data

Manometer Readings	VES-IN	<u>-40 in H₂O</u>
	VES-EFF	<u>—</u>
	EW-3	<u>-40 in H₂O</u>
Vapor Flow Rate	VES-IN	<u>50 f/m</u>

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate Initial - 11 g/m

Tank Level (% Full) 5%

Totalizer Reading 3575813

Influent Groundwater Stream

Product Odor (faint/strong)

Turbidity low

pH —

Color clear

Sheen —

Notes —

Groundwater Sampling

~~EW-1~~ EW-3 (influent) 3 VOC

Tank Sample 3 VOC

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Cloudy / rain

Tank Condition Good

Piping condition Good

IC Engine Condition Good

Misc. Notes Used EW-1 to extract water

Vapor concentration levels low / none
Water pump started at 12pm

Sample Collection

VES-IN	<input checked="" type="checkbox"/>
VES-EFF	<input checked="" type="checkbox"/>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>		
MW-1A	<u>0</u>		
EW-1	<u>0</u>		
EW-2	<u>0</u>		

Depth to Water

	At start Onsite Wells		At Start	
MW-1A	<u>24.7</u>	EW-1	<u>25.1</u>	
MW-1B	<u>24.6</u>	EW-2	<u>25.27</u>	
MW-2A	<u>24.5</u>	EW-3	<u>25.15</u>	
MW-3A	<u>25.15</u>			

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log

160 Holmes Street, Livermore, California

PERSONNEL: DO

DATE: 4-28-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8523.8
 Battery Status Good - Hard to Jump
 IC-Engine at 40-Inches Water (Yes) No
 IC-Engine Water Knockout (% full): 0

VES Data	
Manometer Readings	VES-IN - 40 in H ₂ O
	VES-EFF -
	EW-3 - 40 in H ₂ O
Vapor Flow Rate	VES-IN 250

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate ~ 1.5 g/m
 Tank Level (% Full) ~ 50%
 Totalizer Reading 3579048

Influent Groundwater Stream

Product Odor (faint/strong) Strong
 Turbidity low
 pH -
 Color clear
 Sheen -
 Notes -

Groundwater Sampling

EW-3 (influent) None
 Tank Sample None

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Cloudy/rain
 Tank Condition Good
 Piping condition Good
 IC Engine Condition Good
 Misc. Notes Shortend rubber hose to fit EW-3
 Had to charge battery.

Sample Collection

VES-IN None
 VES-EFF None

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	<u>0</u>	<u>0</u>	<u>0</u>
MW-1A	<u>0</u>	<u>0</u>	<u>0</u>
EW-1	<u>0</u>	<u>0</u>	<u>0</u>
EW-2	<u>0</u>	<u>0</u>	<u>0</u>

Depth to Water

Onsite Wells

MW-1A	<u>24.4</u>	EW-1	<u>25.15</u>
MW-1B	<u>24.65</u>	EW-2	<u>25.3</u>
MW-2A	<u>25.5</u>	EW-3	<u>25.05</u>
MW-3A	<u>25.15</u>	EW-4	

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	<input checked="" type="checkbox"/>
IC Engine locked	<input checked="" type="checkbox"/>
Wells secure	<input checked="" type="checkbox"/>
Equipment secure	<input checked="" type="checkbox"/>
GW piping secure	<input checked="" type="checkbox"/>
Tank ladder removed	<input checked="" type="checkbox"/>
Site cleared	<input checked="" type="checkbox"/>



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: JR

DATE: 4-29-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8531.7

Battery Status _____

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): _____

VES Data

Manometer Readings	VES-IN	-40 in H ₂ O
	VES-EFF	_____
	EW-3	-40 in H ₂ O
Vapor Flow Rate	VES-IN	300 FPM 2"

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 1.50 GPM

Tank Level (% Full) 45/40 60%

Totalizer Reading 3.579.580

Influent Groundwater Stream

Product Odor (faint/strong)	<u>strong</u>
Turbidity	<u>Low</u>
pH	<u>—</u>
Color	<u>light brown</u>
Sheen	<u>None</u>
Notes	

Groundwater Sampling

EW-3 (influent) 3 VOA

Tank Sample 3 VOA

General OBSERVATIONS and MEASUREMENTS

Weather Conditions?	<u>Sunny</u>
Tank Condition	<u>Good</u>
Piping condition	<u>Good</u>
IC Engine Condition	<u>Good</u>
Misc. Notes	<u>nick on Tank</u>

Sample Collection

VES-IN	<u>1 bag</u>
VES-EFF	<u>1 bag</u>

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B			
MW-1A			
EW-1			
EW-2			

Depth to Water

Onsite Wells

MW-1A		EW-1	
MW-1B		EW-2	
MW-2A		EW-3	
MW-3A			

Offsite Wells

MW-7A		MW-4A	
MW-7B		MW-9A	
MW-7C		MW-9B	
MW-7A		MW-5A	
MW-7B		MW-5B	

Departure Checklist

IC Engine off	
IC Engine locked	
Wells secure	
Equipment secure	
GW piping secure	
Tank ladder removed	
Site cleared	



VES Operation and Maintenance Field Log
160 Holmes Street, Livermore, California

PERSONNEL: EA

DATE: 4-30-10

VES OBSERVATIONS and MEASUREMENTS UPON ARRIVAL

Hours Operated upon Arrival 8536.0

Battery Status Good

IC-Engine at 40-Inches Water Yes No

IC-Engine Water Knockout (% full): 0%

VES Data

Manometer Readings	VES-IN	-38.6
	VES-EFF	✓
	EW-3	-38.9
Vapor Flow Rate	VES-IN	380 E/m

Groundwater Extraction Observations and Measurements

Groundwater Flow Rate 1.7 GPM

Tank Level (% Full) ~ 70%

Totalizer Reading 3,579,901

Influent Groundwater Stream

Product Odor (faint/strong) strong

Turbidity low

pH —

Color brn

Sheen —

Notes

Groundwater Sampling

EW-3 (influent) ✓

Tank Sample ✓

General OBSERVATIONS and MEASUREMENTS

Weather Conditions? Sunny

Tank Condition good

Piping condition good

IC Engine Condition good

Misc. Notes Filled propane

Sample Collection

VES-IN	✓ 1 bag
VES-EFF	✓

Observation Wells

Induced Vacuums (1st/2nd/3rd)

MW-1B	0.0	—	—
MW-1A	0.0	—	—
EW-1	0.0	—	—
EW-2	0.0	—	—

Depth to Water

Onsite Wells

MW-1A	EW-1
MW-1B	EW-2
MW-2A	EW-3
MW-3A	

Offsite Wells

MW-7A	MW-4A
MW-7B	MW-9A
MW-7C	MW-9B
MW-7A	MW-5A
MW-7B	MW-5B

Departure Checklist

IC Engine off	✓
IC Engine locked	✓
Wells secure	✓
Equipment secure	✓
GW piping secure	✓
Tank ladder removed	✓
Site cleared	✓

APPENDIX B
Certified Analytical Reports and Chains of Custody



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 04/05/10
		Date Received: 04/05/10
	Client Contact: Nathaniel Allen	Date Reported: 04/08/10
	Client P.O.:	Date Completed: 04/07/10

WorkOrder: 1004111

April 08, 2010

Dear Nathaniel:

Enclosed within are:

- 1) The results of the 3 analyzed samples from your project: #160,
- 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.

1004111



849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			TPHig/ BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPHd (EPA 8015)	5-fuel onys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required	
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃															Other
VES-IN	4-5-10		1	BAG	X									X													X
VES-EFF	1		1	BAG	X									X													X
+ GW-IN			3	VOA		X								X													X

Sampled By:	Date: 4-5-10	Time: 19:45	Received By:
Received By:	Date: 4/5/10	Time: 20:00	Received By:
Received By:	Date:	Time:	Received By:

Comments: ICE 11° VES 9.80C
 GOOD CONDITION APPROPRIATE CONTAINERS
 HEAD SPACE ABSENT PRESERVED IN LAB
 DECHLORINATED IN LAB
 VOAS | O & G | METALS | OTHER |

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004111

ClientCode: ATRS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to: Nathaniel Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com, mic
 cc:
 PO:
 ProjectNo: #160

Bill to: Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: **5 days**
 Date Received: **04/05/2010**
 Date Printed: **04/05/2010**

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	
1004111-001	VES-IN	Air	4/5/2010	<input type="checkbox"/>	A		A										
1004111-002	VES-EFF	Air	4/5/2010	<input type="checkbox"/>	A												
1004111-003	GW-IN	Water	4/5/2010	<input type="checkbox"/>		A											

Test Legend:

1	G-MBTEX AIR	2	G-MBTEX W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A contain testgroup.

Prepared by: Samantha Arbuckle

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: **Allterra Environmental, Inc**

Date and Time Received: **4/5/2010 9:57:56 PM**

Project Name: **#160**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **1004111** Matrix Air/Water

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 4.8°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:



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 04/05/10
		Date Received: 04/05/10
	Client Contact: Nathaniel Allen	Date Extracted: 04/06/10
	Client P.O.:	Date Analyzed: 04/06/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004111

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	770	310	2.3	26	5.5	47	4	102	d1
002A	VES-EFF	A	39	ND	2.6	1.6	0.46	4.1	1	100	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 04/05/10
		Date Received: 04/05/10
	Client Contact: Nathaniel Allen	Date Extracted: 04/06/10
	Client P.O.:	Date Analyzed: 04/06/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004111

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	210	86	0.72	6.8	1.3	11	4	102	d1
002A	VES-EFF	A	11	ND	0.79	0.41	0.11	0.94	1	100	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 04/05/10
		Date Received: 04/05/10
	Client Contact: Nathaniel Allen	Date Extracted: 04/07/10
	Client P.O.:	Date Analyzed: 04/07/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004111

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
003A	GW-IN	W	78,000	310,000	550	1800	2100	16,000	200	95	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water/Air

QC Matrix: Water

BatchID: 49767

WorkOrder 1004111

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1004101-001A			
	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
TPH(btex) [£]	ND	60	88.8	94.3	6.03	97.1	96.4	0.695	70 - 130	20	70 - 130	20
MTBE	ND	10	113	107	5.07	111	113	1.96	70 - 130	20	70 - 130	20
Benzene	ND	10	101	103	1.18	98.7	97.4	1.30	70 - 130	20	70 - 130	20
Toluene	ND	10	93.6	91.4	2.41	89.1	87	2.44	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	90.3	90.5	0.202	88.9	86.9	2.25	70 - 130	20	70 - 130	20
Xylenes	ND	30	104	103	0.979	103	100	2.68	70 - 130	20	70 - 130	20
%SS:	105	10	106	100	5.60	97	99	2.26	70 - 130	20	70 - 130	20

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

BATCH 49767 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004111-001A	04/05/10	04/06/10	04/06/10 4:48 PM	1004111-002A	04/05/10	04/06/10	04/06/10 10:49 AM
1004111-003A	04/05/10	04/07/10	04/07/10 5:45 AM	1004111-003A	04/05/10	04/07/10	04/07/10 8:17 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/06/10
	Client Contact: James Allen	Date Received: 04/06/10
	Client P.O.:	Date Reported: 04/09/10
		Date Completed: 04/09/10

WorkOrder: 1004144

April 09, 2010

Dear James:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **160 Holmes Street, Livermore, CA,**
- 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.

1004144



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.
 Project Number: 160
 Project Location: 160 Holmes Street, Livermore, CA
 Project Name:
 Sampler Signature: *Devon Owens*

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other
VES-IN	4-6-10	11:00	1	redler	✓					✓			
VES-EFF	4-6-10	11:00	1	redler	✓					✓			

TPHg/ BTEX/ MTBE (EPA 8015/8021)	✓
BTEX (EPA 8020)	✓
TPHd (EPA 8015)	
5-fuel oys (EPA 8260)	
Ethanol and Methanol (EPA 8260)	
Lead Scavengers (8260)	
Total HVOCs (EPA 8260)	
Hardness/Total dissolved solids	
CAM-17 Metals (EPA 6010/6020)	
LUFT 5 Metals (EPA 6010/6020)	
PAH's/ PNA's (EPA 8270,625/8310)	
Fish Toxicity/Bioassay	
Lead (EPA 6010/200.9/200.8)	
EDF required	✓

Sampled By: *Devon Owens* Date: 4-6-10 Time: 11:00
 Received By: *Jeff Vall* Date: 4/6/10 Time: 1730

Comments: *CE / t° nk*
 GOOD CONDITION APPROPRIATE CONTAINERS
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION: VOAS G & G METALS OTHER

REC'D SEALED & INTACT VIA *B.J 4/6/10*

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004144

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
James Allen	Email: allterraenvironmental@yahoo.com, mic	Accounts Payable	
Allterra Environmental, Inc	cc:	Allterra Environmental	<i>Date Received: 04/06/2010</i>
849 Almar Ave, Ste. C #281	PO:	849 Almar Ave, Ste. C #281	<i>Date Printed: 04/06/2010</i>
Santa Cruz, CA 95060	ProjectNo: 160 Holmes Street, Livermore, CA	Santa Cruz, CA 95060	
831-425-2608 FAX 831-425-2609		micah@allterraenv.com	

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	
1004144-001	VES-IN	Air	4/6/2010 11:00	<input type="checkbox"/>	A	A											
1004144-002	VES-EFF	Air	4/6/2010 11:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampleIDs: 001A, 002A contain testgroup.

Prepared by: Melissa Valles

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: **Allterra Environmental, Inc**

Date and Time Received: **4/6/2010 7:10:52 PM**

Project Name: **160 Holmes Street, Livermore, CA**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1004144** Matrix Air

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 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

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

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/06/10
	Client Contact: James Allen	Date Received: 04/06/10
	Client P.O.:	Date Extracted: 04/07/10
		Date Analyzed: 04/07/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004144

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	2100	420	3.6	72	22	190	2	84	d1
002A	VES-EFF	A	25	ND	2.9	1.6	0.36	2.7	1	99	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/06/10
	Client Contact: James Allen	Date Received: 04/06/10
	Client P.O.:	Date Extracted: 04/07/10
		Date Analyzed: 04/07/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004144

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	580	120	1.1	19	5.1	43	2	84	d1
002A	VES-EFF	A	7.1	ND	0.88	0.42	0.082	0.61	1	99	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 49798

WorkOrder 1004144

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004148-001A			
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
TPH(btex) ^f	ND	60	113	99.3	13.1	86.2	96.4	11.2	70 - 130	20	70 - 130	20
MTBE	ND	10	106	91.7	14.4	98.8	89.3	10.2	70 - 130	20	70 - 130	20
Benzene	ND	10	103	103	0	97.1	96.6	0.476	70 - 130	20	70 - 130	20
Toluene	ND	10	94.7	92.1	2.77	87.4	85.7	1.90	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	90.6	90.4	0.205	85.6	85.6	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	105	104	1.47	100	99.5	0.772	70 - 130	20	70 - 130	20
%SS:	100	10	105	105	0	101	102	0.980	70 - 130	20	70 - 130	20

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

BATCH 49798 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004144-001A	04/06/10 11:00 AM	04/07/10	04/07/10 12:06 PM	1004144-002A	04/06/10 11:00 AM	04/07/10	04/07/10 11:36 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Street, Livermore CA	Date Sampled: 04/07/10
	Client Contact: James Allen	Date Received: 04/07/10
	Client P.O.:	Date Reported: 04/14/10
		Date Completed: 04/14/10

WorkOrder: 1004155

April 14, 2010

Dear James:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#160; 160 Holmes Street, Livermore**
- 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.

1004155



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature: *[Signature]*

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPH _g / BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270.625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other														
VES IN VES EFF	4-7-10	11:00	1		✓					✓				✓												✓	

Sampled By: <i>[Signature]</i>	Date: 4-7-10	Time: 11:00	Received By: <i>[Signature]</i>	Comments:
Received By: <i>[Signature]</i>	Date: 4/7/10	Time: 1430	Received By: <i>[Signature]</i>	
Received By:	Date:	Time:	Received By:	

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004155

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
James Allen	Email: allterraenvironmental@yahoo.com, mic	Accounts Payable	
Allterra Environmental, Inc	cc:	Allterra Environmental	<i>Date Received: 04/07/2010</i>
849 Almar Ave, Ste. C #281	PO:	849 Almar Ave, Ste. C #281	<i>Date Printed: 04/07/2010</i>
Santa Cruz, CA 95060	ProjectNo: #160; 160 Holmes Street, Livermore CA	Santa Cruz, CA 95060	
831-425-2608 FAX 831-425-2609		micah@allterraenv.com	

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	
1004155-001	VES IN	Air	4/7/2010 11:00	<input type="checkbox"/>	A	A											
1004155-002	VES EFF	Air	4/7/2010 11:00	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampleIDs: 001A, 002A contain testgroup.

Prepared by: Maria 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: **Allterra Environmental, Inc**

Date and Time Received: **4/7/2010 2:42:55 PM**

Project Name: **#160; 160 Holmes Street, Livermore CA**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **1004155** Matrix Air

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 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

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

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Street, Livermore CA	Date Sampled: 04/07/10
	Client Contact: James Allen	Date Received: 04/07/10
	Client P.O.:	Date Analyzed: 04/07/10
		Date Extracted: 04/07/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004155

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES IN	A	1500	400	3.3	57	19	110	6.7	116	d1
002A	VES EFF	A	33	ND	1.7	1.2	ND	1.6	1	100	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Street, Livermore CA	Date Sampled: 04/07/10
	Client Contact: James Allen	Date Received: 04/07/10
	Client P.O.:	Date Extracted: 04/07/10
		Date Analyzed: 04/07/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004155

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES IN	A	430	110	1.0	15	4.3	24	6.7	116	d1
002A	VES EFF	A	9.3	ND	0.52	0.30	ND	0.36	1	100	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 49798

WorkOrder 1004155

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1004148-001A			
	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
TPH(btex) [£]	ND	60	113	99.3	13.1	86.2	96.4	11.2	70 - 130	20	70 - 130	20
MTBE	ND	10	106	91.7	14.4	98.8	89.3	10.2	70 - 130	20	70 - 130	20
Benzene	ND	10	103	103	0	97.1	96.6	0.476	70 - 130	20	70 - 130	20
Toluene	ND	10	94.7	92.1	2.77	87.4	85.7	1.90	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	90.6	90.4	0.205	85.6	85.6	0	70 - 130	20	70 - 130	20
Xylenes	ND	30	105	104	1.47	100	99.5	0.772	70 - 130	20	70 - 130	20
%SS:	100	10	105	105	0	101	102	0.980	70 - 130	20	70 - 130	20

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

BATCH 49798 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004155-001A	04/07/10 11:00 AM	04/07/10	04/07/10 10:05 PM	1004155-002A	04/07/10 11:00 AM	04/07/10	04/07/10 9:32 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street	Date Sampled: 04/15/10
		Date Received: 04/15/10
	Client Contact: James Allen	Date Reported: 04/21/10
	Client P.O.:	Date Completed: 04/19/10

WorkOrder: 1004421

April 21, 2010

Dear James:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **160 Holmes Street,**
- 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.



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

1004421

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPHg/ BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPHg (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAHs/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required				
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other																		
GW-IN	4-15-10	8:00	3	VOA-		X							X																		X
VES-IN	4-15-10	7:05	1	bag-	X								X																		X
VES-EFF	4-15-10	6:58	1	bag-	X								X																		X

Sampled By:	Date: 4-15-10	Time: 1030	Received By:	Comments: ICE / t° 182i GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE HEAD SPACE ABSENT <input checked="" type="checkbox"/> CONTAINERS <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> PRESERVATION <input checked="" type="checkbox"/> VOAS <input type="checkbox"/> O & G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER <input type="checkbox"/>
Received By:	Date: 4/15/10	Time: 1130	Received By:	
Received By:	Date:	Time:	Received By:	

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004421

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	James Allen	Email: allterraenvironmental@yahoo.com, mic	Bill to:	Accounts Payable	Requested TAT:	5 days
	Allterra Environmental, Inc	cc:		Allterra Environmental	<i>Date Received:</i>	04/15/2010
	849 Almar Ave, Ste. C #281	PO:		849 Almar Ave, Ste. C #281	<i>Date Printed:</i>	04/15/2010
	Santa Cruz, CA 95060	ProjectNo: 160 Holmes Street		Santa Cruz, CA 95060		
	831-425-2608 FAX 831-425-2609			micah@allterraenv.com		

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
1004421-001	GW-IN	Water	4/15/2010 8:00	<input type="checkbox"/>		A	A									
1004421-002	VES-IN	Air	4/15/2010 7:05	<input type="checkbox"/>	A											
1004421-003	VES-EFF	Air	4/15/2010 6:58	<input type="checkbox"/>	A											

Test Legend:

1	G-MBTEX_AIR	2	G-MBTEX_W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

The following SampleIDs: 002A, 003A contain testgroup.

Prepared by: Melissa Valles

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: **Allterra Environmental, Inc**

Date and Time Received: **4/15/2010 12:37:03 PM**

Project Name: **160 Holmes Street**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1004421** Matrix Air/Water

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 18.2°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

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

Client contacted:

Date contacted:

Contacted by:

Comments:



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street	Date Sampled: 04/15/10
		Date Received: 04/15/10
	Client Contact: James Allen	Date Extracted: 04/15/10
	Client P.O.:	Date Analyzed: 04/15/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004421

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
002A	VES-IN	A	270	270	2.7	14	1.3	10	4	115	d1
003A	VES-EFF	A	ND	ND	0.98	0.48	ND	0.76	1	97	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street	Date Sampled: 04/15/10
		Date Received: 04/15/10
	Client Contact: James Allen	Date Extracted: 04/15/10
	Client P.O.:	Date Analyzed: 04/15/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004421

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
002A	VES-IN	A	76	75	0.82	3.7	0.29	2.4	4	115	d1
003A	VES-EFF	A	ND	ND	0.30	0.13	ND	0.17	1	97	

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street	Date Sampled: 04/15/10
		Date Received: 04/15/10
	Client Contact: James Allen	Date Extracted: 04/16/10-04/20/10
	Client P.O.:	Date Analyzed: 04/16/10-04/20/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004421

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	GW-IN	W	33,000	300,000	470	1900	1400	6300	20	100	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water/Air

QC Matrix: Water

BatchID: 49954

WorkOrder 1004421

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1004374-037A			
	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
TPH(btex) [£]	ND	60	105	103	1.19	101	101	0	70 - 130	20	70 - 130	20
MTBE	ND	10	99	97.3	1.74	96	101	5.31	70 - 130	20	70 - 130	20
Benzene	ND	10	86.5	88.3	2.04	86	88.4	2.72	70 - 130	20	70 - 130	20
Toluene	ND	10	85	87	2.27	84.4	86.8	2.83	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	85.9	88.1	2.58	85.2	87.3	2.39	70 - 130	20	70 - 130	20
Xylenes	ND	30	87.6	90.3	2.99	87	89.2	2.51	70 - 130	20	70 - 130	20
%SS:	94	10	96	97	0.956	97	96	0.384	70 - 130	20	70 - 130	20

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

BATCH 49954 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004421-001A	04/15/10 8:00 AM	04/16/10	04/16/10 7:38 PM	1004421-001A	04/15/10 8:00 AM	04/20/10	04/20/10 9:09 AM
1004421-002A	04/15/10 7:05 AM	04/15/10	04/15/10 3:08 PM	1004421-003A	04/15/10 6:58 AM	04/15/10	04/15/10 3:38 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Street, Livermore CA	Date Sampled: 04/20/10
	Client Contact: James Allen	Date Received: 04/20/10
	Client P.O.:	Date Reported: 04/21/10
		Date Completed: 04/21/10

WorkOrder: 1004584

April 21, 2010

Dear James:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#160; 160 Holmes Street, Livermore**
- 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.

1004584



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH **24HR** 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.
 Project Number: 160
 Project Location: 160 Holmes Street, Livermore, CA
 Project Name:
 Sampler Signature:

Field Point Name Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other
T-1	4-20-10	10:30	3	VOA		X					X		
GW-IN	4-20-10	10:35	3	VOA		X					X		

TPH _g /BTEX/MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel olys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAHs/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required
X													
X													

Sampled By: Date: 4-20-10 Time: 1315 Received By:
 Received By: Date: 4/20/10 Time: 1440 Received By:
 Received By: _____ Date: _____ Time: _____ Received By: _____

Comments: ICE# 234
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION VOAS O&G METALS OTHER
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004584

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 1 day
James Allen	Email: allterraenvironmental@yahoo.com, mic	Accounts Payable	
Allterra Environmental, Inc	cc:	Allterra Environmental	Date Received: 04/20/2010
849 Almar Ave, Ste. C #281	PO:	849 Almar Ave, Ste. C #281	Date Printed: 04/20/2010
Santa Cruz, CA 95060	ProjectNo: #160; 160 Holmes Street, Livermore CA	Santa Cruz, CA 95060	
831-425-2608 FAX 831-425-2609		micah@allterraenv.com	

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	
1004584-001	T-1	Water	4/20/2010 10:30	<input type="checkbox"/>	A												
1004584-002	GW-IN	Water	4/20/2010 10:35	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments: 24hr Rush

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



Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**

Date and Time Received: **4/20/2010 2:55:48 PM**

Project Name: **#160; 160 Holmes Street, Livermore CA**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **1004584** Matrix Water

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 23.4°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:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 50097

WorkOrder 1004584

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004595-001A			
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
TPH(btex) ^f	ND	60	94.5	89.3	5.70	96.3	101	4.58	70 - 130	20	70 - 130	20
MTBE	ND	10	102	88.5	13.8	89.3	89	0.387	70 - 130	20	70 - 130	20
Benzene	ND	10	92	89.4	2.90	80.5	87.1	7.78	70 - 130	20	70 - 130	20
Toluene	ND	10	89	85.8	3.68	78.4	84.7	7.69	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	87.9	84.2	4.29	77.8	84.6	8.32	70 - 130	20	70 - 130	20
Xylenes	ND	30	88.2	83.7	5.29	78.3	85	8.20	70 - 130	20	70 - 130	20
%SS:	101	10	103	108	5.20	98	99	1.12	70 - 130	20	70 - 130	20

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

BATCH 50097 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004584-001A	04/20/10 10:30 AM	04/20/10	04/20/10 4:54 PM	1004584-001A	04/20/10 10:30 AM	04/21/10	04/21/10 2:46 AM
1004584-002A	04/20/10 10:35 AM	04/20/10	04/20/10 5:24 PM	1004584-002A	04/20/10 10:35 AM	04/21/10	04/21/10 10:50 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/27/10
		Date Received: 04/27/10
	Client Contact: Nathaniel Allen	Date Reported: 04/30/10
	Client P.O.:	Date Completed: 04/30/10

WorkOrder: 1004834

April 30, 2010

Dear Nathaniel:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **160 Holmes Street, Livermore, CA,**
- 2) A QC report for the above sample,
- 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.

1004834



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.
 Project Number: 160
 Project Location: 160 Holmes Street, Livermore, CA
 Project Name:
 Sampler Signature:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other
YES - IN	4-27-10	1:00	1	BAG	X								

TPH _g / BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,62.5/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required
X													

Sampled By: [Signature] Date: 4-27-10 Time: 1630 Received By: [Signature]
 Received By: [Signature] Date: 4/27/10 Time: 1745 Received By: [Signature] 4/27/10 17:45
 Received By:

Comments: ICE / t MA
 GOOD CONDITION ✓ APPROPRIATE CONTAINERS ✓
 HEAD SPACE ABSENT ✓ PRESERVED IN LAB MA
 DECHLORINATED IN LAB MA PRESERVED IN LAB MA
 PRESERVATION VOAS | O & G | METALS | OTHER

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004834

ClientCode: ATRS

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 Nathaniel Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com, mic
 cc:
 PO:
 ProjectNo: 160 Holmes Street, Livermore, CA

Bill to:
 Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days
Date Received: 04/27/2010
Date Printed: 04/27/2010

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		
1004834-001	VES-IN	Air	4/27/2010 13:00	<input type="checkbox"/>	A													

Test Legend:

1	G-MBTEX AIR	2		3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Samantha Arbuckle

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: **Allterra Environmental, Inc** Date and Time Received: **4/27/2010 6:24:28 PM**
Project Name: **160 Holmes Street, Livermore, CA** Checklist completed and reviewed by: **Samantha Arbuckle**
WorkOrder N°: **1004834** Matrix Air Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 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

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

Client contacted: Date contacted: Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/27/10
	Client Contact: Nathaniel Allen	Date Received: 04/27/10
	Client P.O.:	Date Extracted: 04/28/10
		Date Analyzed: 04/28/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004834

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	ND	4.2	ND	0.31	ND	0.94	1	96	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	25	2.5	0.25	0.25	0.25	0.25	0.25	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/27/10
	Client Contact: Nathaniel Allen	Date Received: 04/27/10
	Client P.O.:	Date Extracted: 04/28/10
		Date Analyzed: 04/28/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004834

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	ND	1.2	ND	0.080	ND	0.21	1	96	

ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 50257

WorkOrder 1004834

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004843-004A			
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
TPH(btex) ^f	ND	60	101	97.3	3.91	101	96.5	4.73	70 - 130	20	70 - 130	20
MTBE	ND	10	104	102	1.61	104	105	0.587	70 - 130	20	70 - 130	20
Benzene	ND	10	89.4	90.5	1.21	88.4	88.7	0.409	70 - 130	20	70 - 130	20
Toluene	ND	10	91.4	91	0.344	89.1	89.1	0	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.9	89.9	0	87.1	88	1.02	70 - 130	20	70 - 130	20
Xylenes	ND	30	92.4	91.4	1.09	88.9	89.7	0.958	70 - 130	20	70 - 130	20
%SS:	99	10	95	96	1.22	94	95	1.52	70 - 130	20	70 - 130	20

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

BATCH 50257 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004834-001A	04/27/10 1:00 PM	04/28/10	04/28/10 12:50 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/27/10
		Date Received: 04/27/10
	Client Contact: Nathaniel Allen	Date Reported: 05/03/10
	Client P.O.:	Date Completed: 05/03/10

WorkOrder: 1004833

May 03, 2010

Dear Nathaniel:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **160 Holmes Street, Livermore, CA,**
- 2) A QC report for the above sample,
- 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.

1004833



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature:

Field Point Name / Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPHig/ BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPHd (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAHs/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required							
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other																					
+ GW-IN-CW1	4.27.10	1:50	3	VOA		X				X	X			X																				

Sampled By:	Date: 4.27.10	Time: 1630	Received By:
Received By:	Date: 4/27/10	Time: 1745	Received By:
Received By:	Date:	Time:	Received By:

Comments: ICE / T yes 2.8°C
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION VOAS O & G METALS OTHER

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004833

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Nathaniel Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com, mic
 cc:
 PO:
 ProjectNo: 160 Holmes Street, Livermore, CA

Bill to:

Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days

Date Received: 04/27/2010

Date Printed: 04/27/2010

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	
1004833-001	GW-IN-EW-1	Water	4/27/2010 13:50	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

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: **Allterra Environmental, Inc** Date and Time Received: **4/27/2010 6:19:26 PM**
Project Name: **160 Holmes Street, Livermore, CA** Checklist completed and reviewed by: **Samantha Arbuckle**
WorkOrder N°: **1004833** Matrix Water Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 2.8°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:



McC Campbell Analytical, Inc.

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/27/10
	Client Contact: Nathaniel Allen	Date Received: 04/27/10
	Client P.O.:	Date Extracted: 04/29/10-04/30/10
		Date Analyzed: 04/29/10-04/30/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004833

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	GW-IN-EW-1	W	1900	3500	19	69	41	350	5	99	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 50257

WorkOrder 1004833

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1004843-004A			
	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
TPH(btex) ^f	ND	60	101	97.3	3.91	101	96.5	4.73	70 - 130	20	70 - 130	20
MTBE	ND	10	104	102	1.61	104	105	0.587	70 - 130	20	70 - 130	20
Benzene	ND	10	89.4	90.5	1.21	88.4	88.7	0.409	70 - 130	20	70 - 130	20
Toluene	ND	10	91.4	91	0.344	89.1	89.1	0	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.9	89.9	0	87.1	88	1.02	70 - 130	20	70 - 130	20
Xylenes	ND	30	92.4	91.4	1.09	88.9	89.7	0.958	70 - 130	20	70 - 130	20
%SS:	99	10	95	96	1.22	94	95	1.52	70 - 130	20	70 - 130	20

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

BATCH 50257 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004833-001A	04/27/10 1:50 PM	04/29/10	04/29/10 8:05 PM	1004833-001A	04/27/10 1:50 PM	04/30/10	04/30/10 11:51 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160 Holmes Street, Livermore, C.A.	Date Sampled: 04/29/10
		Date Received: 04/29/10
	Client Contact: Nathaniel Allen	Date Reported: 05/06/10
	Client P.O.:	Date Completed: 05/06/10

WorkOrder: 1004914

May 06, 2010

Dear Nathaniel:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#160 Holmes Street, Livermore, C.A.,**
- 2) A QC report for the above sample,
- 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.

1004914



849 Almar Avenue, Suite C, #281
Santa Cruz, California 95060

Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature:

Field Point Name Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			TPH/g/ BTEX/ MTBE (EPA 801.5/802.1)	BTEX (EPA 8020)	TPHd (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required				
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃															Other			
VES-IN	4-29-10	11:15	1	BAG	X										X															X
VES-EFF	4-29-10	11:20	1	BAG	X										X															X

Sampled By:	Date:	Time:	Received By:	Comments: ICE / L- <u>MA</u> ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT <u>MA</u> CONTAINERS ✓ DECLORINATED IN LAB <u>MA</u> PRESERVED IN LAB <u>MA</u> PRESERVATION VOAS 0 & 6 METALS OTHER
Received By:	Date:	Time:	Received By:	
Received By:	Date:	Time:	Received By:	

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004914

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
Nathaniel Allen	Email: allterraenvironmental@yahoo.com, micah	Accounts Payable	
Allterra Environmental, Inc	cc:	Allterra Environmental	<i>Date Received: 04/29/2010</i>
849 Almar Ave, Ste. C #281	PO:	849 Almar Ave, Ste. C #281	<i>Date Printed: 05/06/2010</i>
Santa Cruz, CA 95060	ProjectNo: #160 Holmes Street, Livermore, C.A.	Santa Cruz, CA 95060	
831-425-2608 FAX 831-425-2609		micah@allterraenv.com	

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	
1004914-001	VES-IN	Air	4/29/2010 11:15	<input type="checkbox"/>	A	A											
1004914-002	VES-EFF	Air	4/29/2010 11:20	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampleIDs: 001A, 002A contain testgroup.

Prepared by: Samantha Arbuckle

Comments: not enough air in sample -001 to analyze. Spoke to client re: this on 04/30/10 - Angela

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: **Allterra Environmental, Inc** Date and Time Received: **4/29/2010 7:07:50 PM**
Project Name: **#160 Holmes Street, Livermore, C.A.** Checklist completed and reviewed by: **Samantha Arbuckle**
WorkOrder N°: **1004914** Matrix Air Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 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

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

Client contacted: Date contacted: Contacted by:

Comments: not enough air in sample -001. Spoke to client re: this on 04/30/10 - Angela



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1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Web: www.mcccampbell.com E-mail: main@mcccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160 Holmes Street, Livermore, C.A.	Date Sampled: 04/29/10
	Client Contact: Nathaniel Allen	Date Received: 04/29/10
	Client P.O.:	Date Extracted: 04/30/10
		Date Analyzed: 04/30/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004914

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
002A	VES-EFF	A	ND	ND	ND	ND	ND	ND	1	99	

ppm (mg/L) to ppmv (uL/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* vapor samples are reported in $\mu\text{L/L}$, soil/sludge/solid samples in mg/kg, wipe samples in $\mu\text{g/wipe}$, product/oil/non-aqueous liquid samples in mg/L, water samples and all TCLP & SPLP extracts are reported in $\mu\text{g/L}$.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 50339

WorkOrder 1004914

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004920-004A			
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
TPH(btex) ^f	ND	60	101	99.1	1.75	98.8	101	1.79	70 - 130	20	70 - 130	20
MTBE	ND	10	101	105	3.91	89	99	10.7	70 - 130	20	70 - 130	20
Benzene	ND	10	89.5	90.7	1.38	83.8	86.6	3.28	70 - 130	20	70 - 130	20
Toluene	ND	10	90.3	88.8	1.74	82.2	86.4	4.96	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.1	88.8	0.320	82	86.2	4.98	70 - 130	20	70 - 130	20
Xylenes	ND	30	91.1	90.6	0.553	83.5	88.6	5.98	70 - 130	20	70 - 130	20
%SS:	101	10	96	96	0	91	95	4.36	70 - 130	20	70 - 130	20

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

BATCH 50339 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004914-002A	04/29/10 11:20 AM	04/30/10	04/30/10 4:37 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160 Holmes Street, Livermore, C.A.	Date Sampled: 04/29/10
		Date Received: 04/29/10
	Client Contact: Nathaniel Allen	Date Reported: 05/05/10
	Client P.O.:	Date Completed: 05/05/10

WorkOrder: 1004912

May 05, 2010

Dear Nathaniel:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#160 Holmes Street, Livermore, C.A.,**
- 2) A QC report for the above sample,
- 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.

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004912

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

Nathaniel Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com, mic
 cc:
 PO:
 ProjectNo: #160 Holmes Street, Livermore, C.A.

Bill to:

Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days

Date Received: 04/29/2010

Date Printed: 04/29/2010

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	
1004912-001	GW-IN	Water	4/29/2010 11:00	<input type="checkbox"/>	A	A											

Test Legend:

1	G-MBTX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

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: **Allterra Environmental, Inc** Date and Time Received: **4/29/2010 6:57:57 PM**
 Project Name: **#160 Holmes Street, Livermore, C.A.** Checklist completed and reviewed by: **Samantha Arbuckle**
 WorkOrder N°: **1004912** Matrix Water Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 3.7°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:



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160 Holmes Street, Livermore, C.A.	Date Sampled: 04/29/10
	Client Contact: Nathaniel Allen	Date Received: 04/29/10
	Client P.O.:	Date Extracted: 04/30/10-05/03/10
		Date Analyzed: 04/30/10-05/03/10

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004912

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	GW-IN	W	30,000	190,000	300	1500	1000	5300	200	97	d1

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 50339

WorkOrder 1004912

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004920-004A			
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
TPH(btex) ^f	ND	60	101	99.1	1.75	98.8	101	1.79	70 - 130	20	70 - 130	20
MTBE	ND	10	101	105	3.91	89	99	10.7	70 - 130	20	70 - 130	20
Benzene	ND	10	89.5	90.7	1.38	83.8	86.6	3.28	70 - 130	20	70 - 130	20
Toluene	ND	10	90.3	88.8	1.74	82.2	86.4	4.96	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.1	88.8	0.320	82	86.2	4.98	70 - 130	20	70 - 130	20
Xylenes	ND	30	91.1	90.6	0.553	83.5	88.6	5.98	70 - 130	20	70 - 130	20
%SS:	101	10	96	96	0	91	95	4.36	70 - 130	20	70 - 130	20

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

BATCH 50339 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004912-001A	04/29/10 11:00 AM	04/30/10	04/30/10 10:12 PM	1004912-001A	04/29/10 11:00 AM	05/03/10	05/03/10 9:38 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/30/10
	Client Contact: James Allen	Date Received: 04/30/10
	Client P.O.:	Date Reported: 05/05/10
		Date Completed: 05/03/10

WorkOrder: 1004948

May 05, 2010

Dear James:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **160 Holmes Street, Livermore, CA,**
- 2) A QC report for the above sample,
- 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.

1004948



849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes Street, Livermore, CA

Project Name:

Sampler Signature: *Eri*

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Field Point Name Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPH _g /BTEX/MTBE (EPA 801.5/802.1)	BTEX (EPA 8020)	TPHd (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required	
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other															
VES-IN	4/30/10		1	Tedlar	✓					✓				✓														✓

ICE / I² n/a
 GOOD CONDITION APPROPRIATE CONTAINERS
 HEAD SPACE ABSENT PRESERVED IN LAB
 DECHLORINATED IN LAB
 PRESERVATION VOAS | O & G | METALS | OTHER

Sampled By: <i>Erik Allen</i>	Date: 4-30-10	Time: 1400	Received By: <i>[Signature]</i>
Received By: <i>[Signature]</i>	Date: 4/30/10	Time: 1500	Received By: <i>[Signature]</i>
Received By:	Date:	Time:	Received By:

Comments: Vapor sample - Rush

McC Campbell Analytical, Inc.



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 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1004948

ClientCode: ATRS

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	James Allen	Email: allterraenvironmental@yahoo.com, mic	Bill to:	Accounts Payable	Requested TAT: 5 days
	Allterra Environmental, Inc	cc:		Allterra Environmental	<i>Date Received: 04/30/2010</i>
	849 Almar Ave, Ste. C #281	PO:		849 Almar Ave, Ste. C #281	<i>Date Printed: 04/30/2010</i>
	Santa Cruz, CA 95060	ProjectNo: 160 Holmes Street, Livermore, CA		Santa Cruz, CA 95060	
	831-425-2608 FAX 831-425-2609			micah@allterraenv.com	

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	
1004948-001	VES-IN	Air	4/30/2010	<input type="checkbox"/>	A	A											

Test Legend:

1	G-MBTEX AIR	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

Prepared by: Melissa Valles

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: **Allterra Environmental, Inc**

Date and Time Received: **4/30/2010 6:02:25 PM**

Project Name: **160 Holmes Street, Livermore, CA**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **1004948** Matrix Air

Carrier: Benjamin Yslas (MAI Courier)

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 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

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

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes Street, Livermore, CA	Date Sampled: 04/30/10
	Client Contact: James Allen	Date Received: 04/30/10
	Client P.O.:	Date Extracted: 05/01/10
		Date Analyzed: 05/01/10

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with MTBE and BTEX in ppmv*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Bm

Work Order: 1004948

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	VES-IN	A	49	35	ND<0.31	2.5	0.25	1.6	4	110	d1

ppm (mg/L) to ppmv (ul/L) conversion for TPH(g) assumes the molecular weight of gasoline to be equal to that of hexane.

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	A	7.0	0.68	0.077	0.065	0.057	0.057	1	uL/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Air

QC Matrix: Water

BatchID: 50339

WorkOrder 1004948

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1004920-004A			
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
TPH(btex) ^f	ND	60	101	99.1	1.75	98.8	101	1.79	70 - 130	20	70 - 130	20
MTBE	ND	10	101	105	3.91	89	99	10.7	70 - 130	20	70 - 130	20
Benzene	ND	10	89.5	90.7	1.38	83.8	86.6	3.28	70 - 130	20	70 - 130	20
Toluene	ND	10	90.3	88.8	1.74	82.2	86.4	4.96	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.1	88.8	0.320	82	86.2	4.98	70 - 130	20	70 - 130	20
Xylenes	ND	30	91.1	90.6	0.553	83.5	88.6	5.98	70 - 130	20	70 - 130	20
%SS:	101	10	96	96	0	91	95	4.36	70 - 130	20	70 - 130	20

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

BATCH 50339 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1004948-001A	04/30/10	05/01/10	05/01/10 12:20 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.