

RECEIVED

8:54 am, Feb 09, 2010

Alameda County Environmental Health

February 8, 2010

Project No. 3494.01

Mr. Mark Detterman Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject:

Letter Report

Groundwater Monitoring Conducted January 15, 2010

Fuel Leak Case No. RO0000052

Former Peterson Manufacturing Company Facility

1600 63rd Street Emeryville, California

Dear Mr. Detterman:

As a legally authorized representative of 1600 63rd Street Associates, and on behalf of 1600 63rd Street Associates I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document titled *Letter Report, Groundwater Monitoring conducted 15 January 2010, Fuel Leak Case No. RO0000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, <i>Emeryville, California,* are true and correct to the best of my knowledge.

Sincerely yours,

Geoffrey B. Sears

WAREHAM PROPERTY GROUP

On behalf of 1600 63rd Street Associates

Enclosure



8 February 2010 Project 3494.01

Mr. Mark Detterman Hazardous Materials Specialist Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Subject: Letter Report

Groundwater Monitoring Conducted 15 January 2010

Fuel Leak Case No. RO0000052

Former Peterson Manufacturing Company Facility

1600 63rd Street Emeryville, California

Dear Mr. Detterman:

This letter report is submitted by Treadwell & Rollo, Inc. (T&R) on behalf of 1600 63rd Street Associates to document groundwater monitoring conducted on 15 January 2010 at 1600 63rd Street, Emeryville, California (the "Site"). The monitoring is being conducted to address item 5 in the 11 September 2008 letter from Alameda County Environmental Health Services (ACEHS).

BACKGROUND

The Site is located at 1600 63rd Street, Emeryville, California (Figure 1). The Site occupies 2.75 acres bounded by 63rd Street to the south, Overland Avenue to the west, 64th Street to the north, and the City of Emeryville Fire Station Number 2 to the east (Figure 2). The surrounding land use is primarily commercial and light industrial.

Numerous environmental investigation and remediation activities have been conducted by others at the Site since 1987. Historical environmental activities are documented in previous reports (SOMA, 1999a and T&R 2007a), and are not described in this report.

GROUNDWATER MONITORING

On 15 January 2010, groundwater monitoring and sampling were conducted for monitoring wells TR-1, TR-3, and TR-4. Monitoring wells TR-2, TR-5, and MW-2 were not sampled due to the presence of free phase product in the wells. Figure 2 shows the monitoring well locations.

Groundwater Sampling and Analytical Methods

Treadwell and Rollo used an oil/water interface meter to measure the depth to groundwater in monitoring wells TR-1, TR-2, TR-3, TR-4, TR-5 and MW-2. A sheen (<0.01 foot in thickness) of free phase product was detected in wells MW-2, TR-2, and TR-5. Groundwater elevations are summarized in Table 1. Free phase product measurements are summarized in Table 2.



Mr. Mark Detterman Hazardous Materials Specialist Alameda County Health Care Services Agency 8 February 2010 Page 2

Groundwater is interpreted to flow towards the west based on groundwater elevations measured on 15 January 2010. Groundwater gradient information is shown on Figure 3.

Groundwater samples from monitoring wells (TR-1, TR-3, and TR-4) were collected by purging at least three casing volumes of water from each well using a submersible purge pump. During purging, waterquality parameters (pH, temperature, conductivity, oxidation-reduction potential and dissolved oxygen) were measured, and stabilized values were measured after purging was completed. Groundwater sampling forms are included in Appendix A. Stabilized groundwater quality values are presented in Table 3.

Purged groundwater samples were collected and placed into appropriately-preserved containers prepared by the laboratory for analysis. Each sample was immediately sealed, labeled, placed in an ice-cooled chest, and delivered to Curtis & Tompkins, a State-certified laboratory in Berkeley, California, under chain-of-custody procedures. Groundwater samples were analyzed for total petroleum hydrocarbons quantified as diesel (TPHd) by EPA Method 8015M.

Groundwater Analytical Results

TPHd was detected in all three samples, and concentrations ranged from 0.24 mg/L to 0.72 mg/L. The laboratory reported that the chromatograms do not match the diesel standard (Table 4 and Appendix B). Previous investigations (SOMA Corporation, 1999a and 1999b) have reported that the chromatograms do not match the diesel standard and that Friedman & Bruya results indicate "patterns displayed by these peaks are indicative of Bunker C or crude oil." The groundwater analytical results from the monitoring event are similar to the historical groundwater data.

Groundwater analytical results are presented in Table 4. Groundwater Sampling Forms are presented in Appendix A. Certified analytical laboratory reports are provided in Appendix B. Figure 2 shows the monitoring well locations.

Free Phase Product Results

The observed free phase product is dark brown to black in color and viscous. Free phase product is passively collected and removed by using hydrophobic collection socks and canisters located in wells MW-2, TR-2, and TR-5. The passive remediation system is monitored periodically. Removal volume measurements are collected and free phase product thickness measurements are performed. In the period of 24 December 2008 to 15 January 2010, 0.83 liters (L) of product was removed in well MW-2, 1.59 L was removed in well TR-2, and 1.65 L of product was removed in well TR-5. Historical free phase product data is shown on Table 5. Free phase product operations and maintenance forms are included in Appendix A.

CONCLUSIONS

Based on the monitoring results from the period January 2007 to January 2010, concentrations of the analyzed constituents are stable in the sampled wells. The next groundwater monitoring event will occur in January 2011. This scheduling may be accelerated in the event that the pending work plan (Treadwell & Rollo 2009b) for off-site investigation is approved by ACEH.



Mr. Mark Detterman Hazardous Materials Specialist Alameda County Health Care Services Agency 8 February 2010 Page 3

The results of the monitoring indicate that the hydrophobic socks are appropriate for removal of the free phase product in monitoring wells MW-2, TR-2 and TR-5. The next free phase product monitoring event will occur in June 2010. The scheduling may be accelerated in the event that the pending work plan (Treadwell & Rollo 2009b) for off-site investigation is approved by ACEH.

Please feel free to contact Matt Hall at (415) 955-9040 ext. 267 with any questions or comments.

C73178 EXP 12/31/10

OF CALIF

Sincerely yours

TREADWELL & ROLLO, INC.

Matthew B. //lall, PE Senior Project Engineer

34940102.MH

Patrick B. Hubbard, PG, CEG Principal Geologist

Va Hulf

Attachments:

References

Tables

Figures

Appendix A – Groundwater Sampling Forms and Free Phase Product Monitoring Forms (on CD-ROM)

Appendix B – Laboratory Analytical Reports (on CD-ROM)



REFERENCES

SOMA Corporation 1999a. Shallow Groundwater Sampling Results and Addendum to Additional Groundwater investigation Workplan, 1600 63rd Street, Emeryville. 7 July 1999.

SOMA Corporation 1999b. Shallow Groundwater Investigation Results, 1600 63rd Street, Emeryville. 2 September 1999.

Treadwell & Rollo 2007a. Letter Report, Supplemental Soil and Groundwater Investigation, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 21 March 2007.

Treadwell & Rollo 2007b. Letter Report, Groundwater Monitoring Conducted 26 July 2007, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 3 October 2007.

Treadwell & Rollo 2007c. Letter Report, Groundwater Monitoring conducted 30 October 2007, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility. 1600 63rd Street, Emeryville, California. 20 December 2007.

Treadwell & Rollo 2008a. Letter Report, Groundwater Monitoring conducted 30 January 2008, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 6 March 2008.

Treadwell & Rollo 2008b. Letter Report, Groundwater Monitoring conducted 3 October 2008, Fuel Leak Case No. RO0000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 24 October 2008.

Treadwell & Rollo 2009a. Letter Report, Groundwater Monitoring conducted 23 December 2008, Fuel Leak Case No. RO0000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 9 March 2009.

Treadwell & Rollo 2009b. Work Plan: Supplemental Soil and Groundwater Investigation, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 9 March 2009.

Treadwell & Rollo 2010a. Letter Report, Groundwater Monitoring conducted 15 January 2010, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 8 February 2010.



REFERENCES

SOMA Corporation 1999a. Shallow Groundwater Sampling Results and Addendum to Additional Groundwater investigation Workplan, 1600 63rd Street, Emeryville. 7 July 1999.

SOMA Corporation 1999b. Shallow Groundwater Investigation Results, 1600 63rd Street, Emeryville. 2 September 1999.

Treadwell & Rollo 2007a. Letter Report, Supplemental Soil and Groundwater Investigation, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 21 March 2007.

Treadwell & Rollo 2007b. Letter Report, Groundwater Monitoring Conducted 26 July 2007, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 3 October 2007.

Treadwell & Rollo 2007c. Letter Report, Groundwater Monitoring conducted 30 October 2007, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility. 1600 63rd Street, Emeryville, California. 20 December 2007.

Treadwell & Rollo 2008a. Letter Report, Groundwater Monitoring conducted 30 January 2008, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 6 March 2008.

Treadwell & Rollo 2008b. Letter Report, Groundwater Monitoring conducted 3 October 2008, Fuel Leak Case No. RO0000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 24 October 2008.

Treadwell & Rollo 2009a. Letter Report, Groundwater Monitoring conducted 23 December 2008, Fuel Leak Case No. RO0000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 9 March 2009.

Treadwell & Rollo 2009b. Work Plan: Supplemental Soil and Groundwater Investigation, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 9 March 2009.

Treadwell & Rollo 2010a. Letter Report, Groundwater Monitoring conducted 15 January 2010, Fuel Leak Case No. R00000052, Former Peterson Manufacturing Company Facility, 1600 63rd Street, Emeryville, California. 8 February 2010.



TABLES



TABLE 1 GROUNDWATER ELEVATION DATA

1600 63rd Street, Emeryville, California

Well Number	Top-of-Casing Elevation (feet)	Depth of Well Screen Interval (feet)	Date Measured	Depth to Water (feet)	Water Elevation (feet msl)	Change in Elevation (feet)
MW-2	16.53	12.5-20.5	08/03/89	6.66	9.87	(1001)
IVIVV-Z	10.55	12.5-20.5	09/21/89	6.32	10.21	0.34
			10/20/89	6.78	9.75	-0.46
			12/20/89	7.32	9.21	-0.54
				6.76	9.21	0.56
			03/20/90			***************************************
			05/11/90	6.66*		
			07/20/90	6.74*		
			11/12/90	6.75*		
			11/21/90	7.00*		
			02/07/91	6.88*		
			05/08/91	6.92*		
			05/14/99	NM*		
			11/28/06	6.85*		
			01/15/07	6.80*		
			01/30/07	6.40*		
			02/13/07	5.83*		
			02/27/07	5.89*		
			07/26/07	6.67*		
			10/30/07	7.16	9.37	
			01/30/08	5.96	10.57	1.20
			10/03/08	7.57	8.96	-1.61
			11/20/08	7.46	9.07	0.11
			12/23/08	6.73	9.80	0.73
			01/15/10	6.95	9.58	-0.22
TR-1	17.50	5-20	01/15/07	6.21	11.29	0.22
110 1	17.50	0 20	01/30/07	6.14	11.36	0.07
			07/26/07	6.33	11.17	-0.19
			10/30/07	6.35	11.15	-0.02
			01/30/08	5.45	12.05	0.90
			10/03/08	6.43	11.07	-0.98
			12/23/08	6.01	11.49	0.42
			01/15/10	6.15	11.35	-0.14
TR-2	16.50	5-20	01/15/07	8.11*	8.39	
			01/30/07	7.19	9.31	0.92
			02/13/07	6.57*	9.93	0.62
			02/27/07	6.59*	9.91	-0.02
			07/26/07	7.75	8.75	-1.16
			10/30/07	7.86	8.64	-1.27
			01/30/08	6.76	9.74	1.10
			10/03/08	8.12	8.38	-1.36
			11/20/08	7.87	8.63	0.25
			12/23/08	7.38	9.12	0.49
			01/15/10	7.62	8.88	-0.24
TR-3	18.60	5-20	01/15/07	4.85	13.75	
			01/30/07	4.68	13.92	0.17
			07/26/07	5.16	13.44	-0.48
			10/30/07	5.14	13.46	0.02
			01/30/08	4.53	14.07	0.61
			10/03/08	5.22	13.38	-0.69
			12/23/08	4.94	13.66	0.28
	1		01/15/10	5.02	13.58	-0.08



TABLE 1 GROUNDWATER ELEVATION DATA

1600 63rd Street, Emeryville, California

Well Number	Top-of-Casing Elevation (feet)	Depth of Well Screen Interval (feet)	Date Measured	Depth to Water (feet)	Water Elevation (feet msl)	Change in Elevation (feet)
TR-4	16.38	5-20	01/15/07	8.71	7.67	
			01/30/07	6.17	10.21	2.54
			07/26/07	8.68	7.70	-2.51
			10/30/07	8.79	7.59	-0.11
			01/30/08	7.88	8.50	0.91
			10/03/08	8.96	7.42	-1.08
			12/23/08	8.59	7.79	0.37
			01/15/10	8.83	7.55	-0.24
TR-5	16.27	5-20	01/15/07	7.34*	8.93	
			01/30/07	6.87	9.40	0.47
			02/13/07	6.22	10.05	0.65
			02/27/07	6.19	10.08	0.03
			07/26/07	6.19	10.08	0.00
			10/30/07	7.52	8.75	-1.33
			01/30/08	6.42	9.85	1.10
			10/03/08	7.85	8.42	-1.43
			11/20/08	7.59	8.68	0.26
			12/23/08	7.10	9.17	0.49
			01/15/10	7.28	8.99	-0.18

Notes:

Survey conducted by CSS Environmental Services (Novato, CA) on 15 January 2007.

Water elevation referenced to mean sea level (msl).

Monitoring wells MW1, MW3, MW4, and MW5 were abandoned on 15 January 2007.

^{* -} Petroleum product measured in well (0.01- to 3-feet thick)



TABLE 2 FREE PHASE PRODUCT MEASUREMENTS FROM WELLS MW-2, TR-2, and TR-5 (Since January 2007) 1600 63rd Street, Emeryville, California

Well Number	Top-of- Casing Elevation (feet msl)	Depth of Well Screen Interval (feet)	Date Measured	Depth to Free Phase Product (feet)	Depth to Water (feet)	Thickness of Free Phase Product (feet)	Unadjusted Water Level (feet msl)	Adjusted Water Level (feet msl)
MW-2	16.53	12.5-20.5	1/15/2007	6.72	6.80	0.08	9.73	9.79
10100-2	10.55	12.5-20.5	1/30/2007	6.33	6.40	0.08	10.13	10.19
			2/13/2007	5.81	5.83	0.07	10.70	10.72
			2/13/2007	5.78	5.89	0.02	10.64	10.72
			7/26/2007	6.65	6.67	0.02	9.86	9.88
			8/10/2007	6.89	6.91	0.02	9.62	9.64
			9/19/2007	7.05	7.07	0.02	9.46	9.48
			10/4/2007	7.36	7.36	<0.02	9.17	9.17
			10/4/2007	7.16	7.16	<0.01	9.37	9.37
			1/30/2008	5.96	5.96	<0.01	10.57	10.57
			10/3/2008	7.57	7.57	<0.01	8.96	8.96
			11/20/2008	7.46	7.46	<0.01	9.07	9.07
			12/23/2008	6.73	6.73	<0.01 <0.01	9.80	9.80
			1/15/2010	6.95	6.75	<0.01	9.58	9.58
TR-2	16.50	5-20	1/15/2010	7.42	8.11	0.69	8.39	8.94
1 K-Z	10.50	5-20	1/30/2007	7.42	7.19		9.31	9.31
			2/13/2007	6.56	6.57	<0.01 0.01	9.93	9.94
			2/13/2007	6.58	6.59		9.91	9.94
			7/26/2007	7.75	7.75	0.01	8.75	9.92 8.75
			8/10/2007	7.75	7.75	<0.01	8.63	8.63
			9/19/2007	8.01		< 0.01	8.49	8.49
			10/4/2007	8.15	8.01 8.15	<0.01	8.35	8.35
			10/4/2007	7.86	7.86	<0.01	8.64	8.64
			1/30/2007	6.76	6.76	<0.01	9.74	9.74
			10/3/2008	8.12	8.12	<0.01 <0.01	8.38	8.38
			11/20/2008	7.87	7.87	<0.01	8.63	8.63
			12/23/2008	7.38	7.38	<0.01 <0.01	9.12	9.12
			1/15/2010	7.62	7.62	<0.01	8.88	8.88
TR-5	16.27	5-20	1/15/2010	7.02	7.02	0.20	8.93	9.09
1K-5	10.27	5-20	1/30/2007	6.87	6.87	<0.01	9.40	9.40
			2/13/2007	6.22	6.22	<0.01	10.05	10.05
			2/13/2007	6.19	6.19	<0.01	10.03	10.03
			7/26/2007	6.19	6.19		10.08	10.08
			8/10/2007	7.56	7.56	<0.01 <0.01	8.71	8.71
			9/19/2007	7.70	7.70	<0.01	8.57	8.57
			10/4/2007	7.78	7.78	<0.01	8.49	8.49
			10/4/2007	7.76	7.76	<0.01	8.75	8.75
			1/30/2008	6.42	6.42	<0.01	9.85	9.85
			10/3/2008	7.85	7.85	<0.01	8.42	8.42
			11/20/2008	7.65	7.65	<0.01	8.68	8.68
			12/23/2008	7.10	7.10	<0.01	9.17	9.17
			1/15/2010	7.10	7.10	<0.01	8.99	8.99
			1/15/2010	7.28	1.28	<0.01	8.99	8.99

General Notes:

Measurements collected from top of casing, north side.

Adjusted water level = unadjusted water level + (Thickness of Free Phase Product x 0.8).

msl = mean sea level



TABLE 3
Water Quality Values
1600 63rd Street, Emeryville, California

Well	Data	Purge	Purge Duration (minutes)	Volume Purged (gallons)	Purged Dry? (yes/no)	Dissolved Oxygen (mg/L)	рН	Specific Conductance (µS/cm)	Temperature (C°)	ORP (mV)
Number	Date	Method	20	20.0	NI-	_	(()			
TR-1	1/15/2007	SP	30	30.0	No	NM	6.62	830	NM	140
	7/26/2007	SP	10	7.5	No	1.07	7.02	910	22.7	70
	10/30/2007	SP	9	8.5	No	1.49	6.84	900	23.1	10
	1/30/2008	SP	10	10.0	No	1.17	6.90	810	20.6	40
	10/3/2008	SP	5	7.0	No	0.69	6.96	910	24.1	-10
	12/23/2008	SP	6	10	No	1.82	6.84	1,310	17.6	NM
	1/15/2010	SP	15	9.6	No	1.25	6.60	840	20.9	24
TR-3	1/15/2007	SP	35	20.0	Yes	NM	7.75	1,330	21.4	NM
	7/26/2007	SP	20	7.5	No	1.19	6.90	1,530	18.8	120
	10/30/2007	SP	13	10.0	No	1.21	6.88	1,420	19.1	150
	1/30/2008	SP	14	10.0	No	0.95	7.04	1,310	17.5	70
	10/3/2008	SP	5	7.0	No	1.07	7.21	1,500	21.4	70
	12/23/2008	SP	5	10	No	0.52	6.92	1,362	18.1	NM
	1/15/2010	SP	11	10	No	1.24	6.35	1,263	18.0	117
TR-4	1/15/2007	SP	25	25.0	No	NM	6.76	1,780	NM	130
	7/26/2007	SP	7	7.0	No	1.59	7.00	1,800	20.4	50
	10/30/2007	SP	6	8.0	No	1.07	7.06	1,920	20.3	-10
	1/30/2008	SP	6	9.0	No	1.25	7.26	1,670	19.0	40
	10/3/2008	SP	3	5.0	No	1.03	6.97	1,970	21.4	0
	12/23/2008	SP	4	8	No	0.76	6.93	1,719	18.7	NM
	1/15/2010	SP	8	8.2	No	1.02	6.92	1,894	18.4	19

General Notes

ORP = Oxidation Reduction Potential

mV = millivolts

mg/L = milligrams per Liter

 μ S/cm = microseimens per centimeter

SP = submersible pump

TABLE 4 GROUNDWATER SAMPLING RESULTS FROM MONITORING WELLS 1600 63rd Street, Emeryville, California

								Chemic	cal Concentration	ons Detected (mg	g/L)				
								Total		EPA 8080	EPA 8270	EPA 8240	Fuel Oxygenates (including		
Sample No.	Date Sampled	Notes	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	PCBs	Analytes	Analytes	Analytes	Ethanol)	Total Lead	Motor Oil
HLA											(0)				
	6/25/1989		<0.5	0.3	< 0.005	<0.005	<0.005	< 0.005	<0.0005		(2)	< 0.01			
	9/21/1989 12/20/1989		1 <0.5	<0.5 0.53	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.0005 <0.0005	(3) ND	(4)	<0.01 <0.01			
	2/20/1989		<0.5 49	0.42	<0.005	<0.005	<0.005	<0.005	<0.0005	(6)	(5) (7)	0.044 (8)			
	5/11/1990		8.4	1.2	< 0.005	<0.005	<0.005	< 0.005	<0.0005			<0.044 (8)			
	5/11/1990		<2.5	< 0.5	<0.01	< 0.01	<0.01	<0.01				< 0.02			
MW-2	7/20/1990		27	3.9	< 0.005	< 0.005	< 0.005	0.011		ND					
	7/20/1990		30	2.3	< 0.005	< 0.0025	< 0.0025	0.0033		ND					
	11/12/1990 11/12/1990		61 35	380 7	<0.005 <0.005	<0.0005 0.0009	<0.0005 0.0001	0.0005 0.0079	<0.0005 <0.0005	ND ND					
	2/7/1991		41	11	< 0.005	< 0.0009	<0.0001	<0.0079	<0.0005	ND ND					
	2/7/1991		27	13	< 0.005	< 0.0005	< 0.0005	0.043	< 0.0005	ND					
	5/8/1991		43	88	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.0005	ND					
	5/8/1991		26	150	< 0.005	< 0.0005	< 0.0005	< 0.005	< 0.0005	ND					
Certified	44 440 44000			0.50	0.0000	0.0014	0.0000	0.0045							
MW-2	11/19/1992 7/13/1994		22 6	0.59 <2	<0.0003 <0.001	0.0014 <0.001	<0.0003 <0.001	0.0015 <0.001							
SOMA Corpo	ration-Monitoring	ı Walls	0	<2	<0.001	<0.001	<0.001	<0.001							
MW-2	5/14/1999	(1)	550	210	<2.5	<2.5	<2.5	4.9	<0.5						<3,500
Treadwell &		(1)	550	2.10	12.0	12.0	12.5	4.7	10.0						10,000
													MtBE = 0.00095		
					1							1	Di-isopropyl ether = 0.00097		
1010	4 (4 0 (0 0 0 7	(0)	40		0.0005	0.0005	0.0005	0.00050					Others < 0.0005 to < 0.1	0.4	
MW-2	1/10/2007	(9)	10	0.6	<0.0005	<0.0005	<0.0005	0.00053						<0.1	
	1/15/2007	(9)	0.14	< 0.05	<0.0005	<0.0005	< 0.0005	<0.0005					MtBE = 0.0074	<0.1	
	1/15/2007	(9)	0.14	<0.05	<0.0005	<0.0005	<0.0005	<0.0005					Others < 0.0005 to < 0.1 MtBE = 0.0085	<0.1	
	7/26/2007		0.20	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Others < 0.0005 to < 0.01	0.0038	
	772072007		0.20	10.00	(0.0005	(0.0000	VO.0000	V0.0000					MtBE = 0.0078	0.0000	
	10/30/2007	(9)	0.25	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Others < 0.0005 to < 0.01	< 0.0034	
TR-1		(-)											MtBE = 0.0078		
	1/30/2008	(9)	0.12	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Others < 0.0005 to < 0.01	< 0.003	
		` ′											MtBE = 0.008		
	10/3/2008	(9)	0.20	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Others < 0.0005 to < 0.01	< 0.003	
													MtBE = 0.0097		
	12/23/2008	(9)	0.26	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Others < 0.0005 to < 0.01	< 0.003	
	1/15/2010	(9)	0.24												
TR-2	1/10/2007	(9)	480	3.4	< 0.005	< 0.005	< 0.005	< 0.005					<0.005 to <1	<0.1	
	1/10/2007	(9)	0.098	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other < 0.0005 to < 0.1	< 0.1	
	7/26/2007	(-)	0.37	< 0.05	< 0.0005	< 0.0005	<0.0005	< 0.0005					Other < 0.0005 to < 0.01	<0.003	
	10/30/2007	(9)	0.17	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other < 0.0005 to < 0.05	< 0.003	
TR-3	1/30/2008	(9)	0.27	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other < 0.0005 to < 0.05	< 0.003	
	10/3/2008	(9)	0.21	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other < 0.0005 to < 0.01	< 0.003	
	12/23/2008	(9)	0.22	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other < 0.0005 to < 0.01	< 0.003	
	1/15/2010	(9)	0.25												
					1							1	MtBE = 0.0022		
		(0)										1	Di-isopropyl ether = 0.001		
	1/10/2007	(9)	0.43	< 0.05	<0.0005	<0.0005	<0.0005	<0.0005					Other < 0.0005 to < 0.1	<0.1	
1													MtBE = 0.003		
ĺ	7/2//2007		0.77	-0.05	-0.0005	.0.0005	.0.0005	-0.0005				1	Di-isopropyl ether = 0.0014	.0.000	
ĺ	7/26/2007 10/30/2007	(0)	0.76 1.00	<0.05 <0.05	<0.0005 <0.0005	<0.0005 <0.0005	<0.0005 <0.0005	<0.0005 <0.0005					Other <0.0005 to <0.01	<0.003 <0.0034	
	10/30/2007	(9)	1.00	<0.05	<0.0005	<0.0005	<0.0005	<0.0005					Other <0.0005 to <0.05 MtBE = 0.0022	<0.0034	
TR-4					1							1	Di-isopropyl ether = 0.0012		
115-4	1/30/2008	(9)	1.00	< 0.05	<0.0005	<0.0005	< 0.0005	<0.0005					Other <0.0005 to <0.01	< 0.003	
	17 307 2000	(*/	1.00	10.00	10.0000	\0.0000	\0.0000	10.0000			1		MtBE = 0.0021	\0.000	
					1							1	Di-isopropyl ether = 0.0012		
	10/3/2008	(9)	0.67	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other <0.0005 to <0.01	< 0.003	
		` ′					1						MtBE = 0.0025		
ĺ					1							1	Di-isopropyl ether = 0.0017		
	12/23/2008	(9)	1.1	< 0.05	< 0.0005	< 0.0005	< 0.0005	< 0.0005					Other <0.0005 to <0.01	< 0.003	
	1/15/2010	(9)	0.72												
TR-5	1/10/2007	(9)	31	12	< 0.005	< 0.005	< 0.005	< 0.005					<0.005 to <1	<0.1	

General Notes:

eneral Notes:

mg/L = milligrams per liter

TPHd = Total Petroleum Hydrocarbons as Diesel

TPHg = Total Petroleum Hydrocarbons as Gasoline

PCBs = Polychlorinated biphenyls

MtBE = Methyl tert-Butyl Ether

< = Below Specified Reporting Limits.

= Not Analyzed.

1 = **Bold** values exceed the environmental screening levels.

Footnotes:

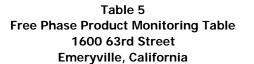
Product sample collected; Chromalab (STL San Francisco) results indicate hydrocarbon reported does not match diesel standard. Friedman & Bruya results indicate "patterns displayed by these peaks are indicative of Bunker C or crude oil" Trace fluorene detected

- Trace fluorene detected
 0.00016 ppm heptachlor and 0.00015 ppm 4,4'-DDD detected.
 0.006 ppm fluorene, 0.005 ppm bis (2-ethyl-hexyl) phthalate, and 0.0061 ppm 2-methyl-napthalene detected.
 0.012 ppm 2-methyl-napthalene detected.
 0.00035 ppm Gamma-BHC detected.

- 0.0061 ppm fluorene, 0.018 ppm 2-methyl-napthalene, and 0,0055 ppm phenanthrene detected.

 0.044 ppm acetone detected.

 Laboratory reported that the TPH compounds detected in samples did not match their respective laboratory standard.





	M	W-2	TF	R-2	TR-	-5	
FPP Extraction							
System	Hydroph	nobic Sock	Hydroph	obic Sock	Hydropho	bic Sock	
						Extraction	
		Extraction		Extraction		Rate	
Date	Volume (L)	Rate (L/day)	Volume (L)	Rate (L/day)	Volume (L)	(L/day)	Notes
8/15/2007			0.00		0.00		
9/19/2007			0.00	0.000	0.21	0.006	Sock changed out in TR-2 & TR-5
10/4/2007			0.34	0.023	0.13	0.009	
10/30/2007			0.34	0.013	0.05	0.002	
11/16/2007			0.03	0.002	0.37	0.022	Sock changed out in TR-2 & TR-5
							Sock changed out in TR-2 & TR-5; installed
1/30/2008			0.95	0.013	0.55	0.007	Hydrophobic Sock in MW-2
5/2/2008	0.48	0.005	0.95	0.010	0.95	0.010	
8/8/2008	0.24	0.002	0.34	0.002	0.58	0.003	
0/0/2000	0.24	0.002	0.54	0.002	0.30	0.003	
11/20/2008	0.24	0.002	0.48	0.005	0.42	0.004	Sock changed out in MW-2, TR-2, & TR-5
12/23/2008	0.16	0.005	0.48	0.015	0.42	0.013	
12/23/2000	0.10	0.003	0.40	0.013	0.42	0.013	
4/29/2009	0.43	0.003	0.95	0.007	0.95	0.007	Sock changed out in MW-2, TR-2, & TR-5
7/31/2009	0.20	0.002	0.40	0.004	0.30	0.003	
7,01,2007	0.20	0.002	0.10	0.001	0.00	0.000	
1/15/2010	0.21	0.001	0.24	0.001	0.40	0.002	Sock changed out in MW-2, TR-2, & TR-5
extracted	1.95		5.50		5.33		

Notes:

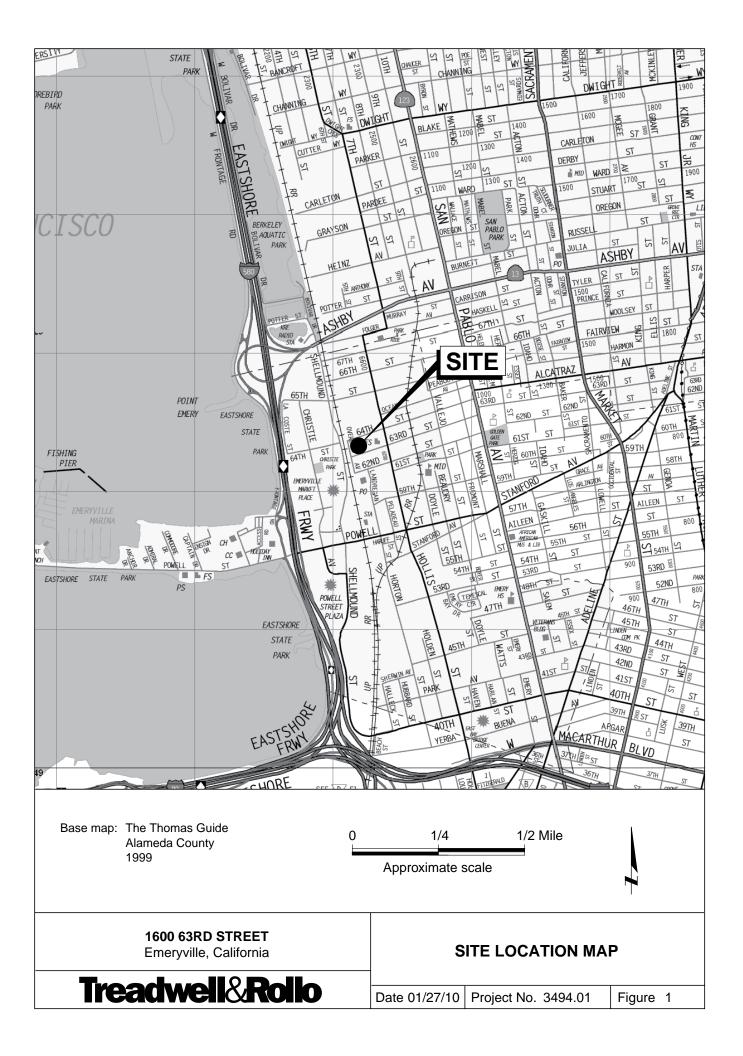
L - liters

FPP - free phase product

Hydrophobic Sock - Durham Geo Slope Indicator, model no. TB2-100, SoakEase[™] absorbent sock



FIGURES





APPENDIX A

Groundwater Sampling Forms and Free Phase Product Monitoring Forms (On CD-ROM)

1600 63rd Street **Free Phase Product O&M Form**

3494.01

Date:

Field Engineer:

1 Arrive 4pm Depart 4:50 Louis Arighi

TR-2

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp ₁₎	Comments
7,52	7.57	*	6-91 deep	364	36/36 * 0.25 0,95L	sock changed
	as and					

TR-5

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp ₁₎	Comments
7.16		*	6-91	36 ^{li}	36/36 x0.95 0.95L	Sock Changed

MW-2

DTW	DTP	Thickness of Product	Collected fpp (in)	Volume fpp	Comments	
6.79		60.01*	Conister = 0 Sock:18"	0.425L	Sock charged	

¹⁾ Volume of FPP on Sock calculated using the formula: length of stained sock/total length of sock [36 inches] * volume of saturated sock [0.95 liters] 2) Sock interval changed

* sheen on Probe

1600 63rd Street Free Phase Product O&M Form 3494.01

Date: 7/3

Field Engineer:

Louis Avi

Avighi

TR-2

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp ₁₎	Comments
8.07	×		6-91	15 in	0.4 L	sock fliffed upside down

TR-5

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp 1)	Comments
7,79	*		6-91	1211	0.3 L	Sock Flipped upside donnes

MW-2

DTW	DTP	Thickness of Product	Collected fpp	Volume fpp	Comments
7,78	*	_ ~	2811	0,26	Sock not changed

¹⁾ Volume of FPP on Sock calculated using the formula: length of stained sock/total length of sock [36 inches] * volume of saturated sock [0.95 liters]

2) Sock interval changed

* sheen on probe tip

Treadwell&Rollo

FIELD REPORT NO. Sheet 1 of ___

Project: 1600 63rd Sf Subject: FIELD INVESTIGATION DAILY REPORT Field Engineer: Lowis Aright Time: Reviewed by: Date:	_ Date:	3494.018 7/31/09 MBH Overcast, mild	
Well ID DTW DTP Screen lut. Length of TR-2 8.07 x 6-9 15" TR-5 7.79 x 6-9 12" MW-J 7.78 x 400 of Flood 18" Wells Still in good shape	Sat. Sock	Volume removed Sock fill Sock fill Sock fill Sock fill No cl	
1135 Left site.	X		
Attachments:	Initia	als	

Treadwell&Rollo

Project: 1100 17 al C4 F	Sileet 0i _
Project: 1600 63rd St Energy: 1/e	Project No: 3494.01
Subject: FIELD INVESTIGATION DAILY REPORT Field Engineer: Levis Aviyla	Date: 1/15/10
0920 Arrived on-site, Start with	seck again
The second of the second	2
The DIVI 1. 18 Sheem no and le	
Will bill bill started and single	^
The second of the second secon	um. Stored was
CLAIVIPS IE 3.	TOTA VEOL
1100 Began Sampling TR-1. Saraha Co	hected @ 1154
engine and DTW: 6.15	
1200 Lunch 1215 Return From Lunch	· Tvailer Rocked
over 12-4, still accessible as long	as you don't a hard
over TR-4, still accessible as long TR-4; DTW: 8.831. Sample collected @	1309
1325 Began purging TR-3. DTW; 5,02	· Sanshe collected
<u>(2) 1414:</u>	The content
	1
	- V
	A Care of the Control
the state of the s	
	**
Attachments:	
	1 Samuel
	Initials

FIELD REPORT NO.

1600 63rd Street Free Phase Product O&M Form 3494.01

Date:

1/15/10

Field Engineer:

Louis Hrigh;

TR-2

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp ₁₎	Comments
7.62	*	60.01	6'-91 below TOK	24"		sock replaced

TR-5

DTW	DTP	Thickness of Product	Interval of Sock	Measured fpp on Sock	Volume fpp 1)	Comments
7,28	X	60.01	6'-9' below TOC	27"		sock replaced

MW-2

DTW	DTP	Thickness of Product	Collected fpp On (in) Sock	Volume fpp	Comments
6.95	X	20,01	(611 Ente	*	Sock replaced

¹⁾ Volume of FPP on Sock calculated using the formula: length of stained sock/total length of sock [36 inches] * volume of saturated sock [0.95 liters] 2) Sock interval changed

* Sheen observed on probe

GROUNDWATER SAMPLING FORM

Project Name 1600 6	sud St, Enery	ville	Well No.	TR-			8 E
Project Number 3494	.01		Well Type	Monitor	Extraction	Other	
Recorded By LMA		Sampled by	LMA.		Date	1/15/1	12
			L PURGING		-		
PURGE VOLUME		WEL	L PURGING				
Well casing diameter				*************************	ETHOD		
	Other			Bailer \ Type		-,,,	
				Pump \ Type	Subre	rsibbe	
Well Total Depth (TD, ft. belo	ow TOC):	25	_	Other			
Depth to Water (WL, ft. below	w TOC):	6.151		PUMP IN	ГАКЕ		
Depth to free phase (FP, ft. b	pelow TOC) :	_	-	Near top	Depth (ft)		
Number of casing volumes to be p		*	-	Near Bottom		251	_
	Other	_		Other			-
PURGE VOLUME CALCUL			2				
Water Column Lei	ngth X 0:17	- X	No. Vols	$=$ $\frac{9.6}{\text{CALCULAT}}$	gals ED PURGE V	OLUME	7
Total Purge Time		= 0.17, 4" = 0.66		CALCOLAT	gals	OLUME	=
Recharge Rate	Purge Rate			ACTUAL	PURGE VOLU	JMF	-
GROUNDWATER PARAM	ETER MEASUREMENITO		·				_
		я .		eter ir Meter Type_	Horiba U22 F	low Through Cell	
Time / Liters	pH Temp *C *F	Cond. (mS/cm)	Turbidity NTU	DO	DO (ma/l)	ORP	Comments
1117/10	6,42 19,1	901	i Nio	(%)	(mg/L)	(mV)	
1119/3	6,56 20,9	1003		 	0.67	-3	
112015	6.55 20.7	893		 	0.51	-24	Puyse to co
113018	6.78 2013	847			0,73	13	bucket
1132 1 9.6	6.60 2019	836			1,25	13	out ret
					110-5		
/			*.				
1 .					-		
/			,				
				0 2			
1							
	1						
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			· · · · · · · · · · · · · · · · · · ·				
Comments		- Ja-		<u></u>			17 N
Comments		Purge water stor		Drummed onsite	<u> </u>	Other	
SAMPLING METHOD	Data (Time On the In		SAMPLING				
Bailer - Type 📓 🗸	Date/Time Sampled	1/15/10		'n			
SAMPLING PROGRAM			Sample port		Other		
Sample No.	Container #/Volume	Analysis	Preservatives	Laborato			
TR-1-1010	2 500 ml amber	- Tett-ol	none			Com	ments
	47.00	7110	V OV T	Curtis & Tor	npkins		
1					-		
	4					:	
						7.7	
QUALITY CONTROL SAME	***************************************	19					
	licate Samples					Blank Samples	
Original Sample No.	Duplicate Sample	No.		Туре	Sa	ample No.	
				Trip			
Troods	Pollic			Rinsate			
Treadwell&F				Transfer			
Environmental and Geotechnical C	onsultant			Other:			-

GROUNDWATER SAMPLING FORM

Project Name 1600 63 rol St		Well No.	TR-3
Project Number 3494.01		Well Type	X Monitor Extraction Other
Recorded By LMA	Sampled by		Date 1/15/10
	WELL	PURGING	
PURGE VOLUME		- Fonding	PURGE METHOD
Well casing diameter			Bailer \ Type
2-inch 3/8-inch Other			MPump \ Type Submersible
	251		
		•	Other
Depth to free phase (FP, ft. below TOC):	5:02		PUMP INTAKE
Number of casing volumes to be purged	-	-	Near top Depth (ft)
			Near Bottom Depth (ft) 35 / Other
PURGE VOLUME CALCULATION			1
19.98 x 0.17 Water Column Length Multiplier	X	No. Vols	gals CALCULATED PURGE VOLUME
Total Purge Time (Multiplier : 2" =	0.17, 4" = 0.66,		gals
Recharge Rate Purge Rate			ACTUAL PURGE VOLUME
GROUNDWATER PARAMETER MEASUREMENTS	1	Me	ter 'r ' Meter Type Horiba U22 Flow Through Cell
	Oand		
*C *F	Cond. (NgS/cm)	Turbidity NTU	DO DO ORP Comments (%) (mg/L) (mV)
1338 / 0 6.43 17.3	1778		30 73
1339 / 3 6.18 17.3	12-16		1.02 82
1340 / 5 6.32 17.4	1237		0.69 89 Pause to A
1348/ 9 6,29 17.9	1241		1.69 124 bucket
1349/10 635 180	171,5		1.32 120
1	10-63		1139 147
1			
1			
1			
/		*	
1			
Comments P	urge water stora	age/disposal	Drummed onsite Other
		SAMPLING	
SAMPLING METHOD Date/Time Sampled	@ 1/15/10	11414	
Bailer - Type 🚺		Sample port	Other
SAMPLING PROGRAM			
Sample No. Container #/Volume	Analysis	Preservatives	Laboratory Comments
TR-3-1010 2 500 mc ambers	TPH-d	none	Curtis & Tompkins
		-	
		,	
QUALITY CONTROL SAMPLES			
Duplicate Samples Original Sample No. Duplicate Sample 1	No		Blank Samples
Original Sample No. Duplicate Sample 1	NO.		Type Sample No.
			Trip Rinsate
Treadwell&Rollo			Transfer
Environmental and Geotechnical Consultant			Other:

GROUNDWATER SAMPLING FORM

Project Name 1600 6			Well No.	TR.	4		
Project Number 3494	1,01		Well Type	Monitor	Extraction	Tother	
Recorded By LMA		Sampled I	by LMA			1/15/	10
		WE	LL PURGING			40	
PURGE VOLUME		1	- I official		METUOD	7	
Well casing diameter	5 5 			Bailer \ Typ	METHOD	Ð	
2-inch 3/8-inch	Other			Pump \ Typ		rsible	
Well Total Depth (TD, ft. be	elow TOC) :	251		П	24/200	KSI DES	
Depth to Water (WL, ft. bel		8.83		Other	Tie colonoses con consensus en con-		
Depth to free phase (FP, ft		0.8	-		INTAKE	1	
Number of casing volumes to be				Near top	Depth (ft)		
」 4 □ 10	Other 3			Near Bottom Other	Depth (ft)	251	
PURGE VOLUME CALC	A TOTAL STREET, STREET						
Water Column I		<u>Z</u> ×	3	= 8:2	gals		
Total Purge Time		: 2" = 0.17, 4" = 0.6	No. Vols	CALCUL	ATED PURGE	/OLUME	
Recharge Rate	Purge Rate	9	0, 6" = 1.5)	1071	gals		
GROUNDWATER PARA			-	ACTUA	L PURGE VOL	JME	
		8		leter ir Meter Type	Horiba U22	Flow Through Cell	
Time / Liters	pH Temp	Cond.	Turbidity	DO	DO	ORP	Comments
11451 17	6.91 18.1	(mS/cm)	NTU	(%)	(mg/L)	(mV)	Continents
1146 1 3	6.83 18.1	1563			7.38	60	
117115	p.81 17.8	1526	 		Deble	73	
11541765	6-80 (8,4	145	,		1.40	98	
11531 8.7	6.82 18,4	1874			6	73	
					10)		-
					,		
1							-
			,	tisans.			
1							
1		1					
	E V						2 A
						1 1 1 1	
omments .		Purge water stor	age/disposal	Drummed onsi	to [7]		
			SAMPLING	Drammed onsi	ie 🔲	Other	
SAMPLING METHOD	Date/Time Sampled	1/15/10	11309				
ailer - Type 📈 📕 🖟 POLY	<u> </u>				Other \square		
SAMPLING PROGRAM				_	Other L		-
Sample No.	Container #/Volume	Analysis	Preservatives	Laborat	ory	Comm	nonte.
K-4-1010	2 500-ML amber	s TPH-d	none	Curtis & To		Comm	ients
7						-	
		-					
	,	 	-				
QUALITY CONTROL SAME	PLES						
Dup	licate Samples						
Original Sample No.	Duplicate Sampl	e No.		Туре		Blank Samples	·
				Trip	San	nple No.	
				Rinsate		·	
readwell&R				Transfer		· · ·	
vironmental and Geotechnical Co							. 1



APPENDIX B

Laboratory Analytical Reports (on CD-ROM)





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 217779 ANALYTICAL REPORT

Treadwell & Rollo Project : 3494.01

501 14th Street Location: 1600 63rd St Oakland, CA 94612

Level : II

Sample ID TR-1-1Q10 <u>Lab ID</u> <u>Lab ID</u> 217779-001 TR-4-1010 217779-002 TR-3-1Q10 217779-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Manager

Project Manager

Date: <u>01/22/2010</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 217779

Client: Treadwell & Rollo

Project: 3494.01 Location: 1600 63rd St

Request Date: 01/15/10 Samples Received: 01/15/10

This data package contains sample and QC results for three water samples, requested for the above referenced project on 01/15/10. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510) 486-0900 Phone (510) 486-0532 Fax

CHAIN OF CUSTODY

Page _

C&TLOGIN #: 217779

Analysis

Project No.: 3494.01	· · · · · · · · · · · · · · · · · · ·
Project Name: 1600 63rd 5+	
Project P.O.	

SIGNATURE

Turnaround Time: 5 -day

Sampler: Louis Avish

Telephone: 415-955-9046** Fax: 415-955-9041

	/											.						ĺ		- 1			İ	
				Ma	atrix				Pres	erv	ative	-	ઇ											
Lab No.	Sample ID.	Sampling Date Time	Soil	Water	Waste	Co	# of ntainers	HCL	H ₂ SO ₄	ÖNH	ICE		1 # 2 -	į										
	TR-1-1210	1/15/10 1154		X		120	500nL	<u> </u>	<u> </u>		Y		R	-	-	-	_		-+	_		_		\downarrow
2	TR-4-1810	1/15/10 1309		ý			SOOML				X			+-	+-			\dashv	_	- }	_	+		+
3	TR-4-1010 TR-3-1010	1/15/10 1309		Ø			500 ML			-	Y		0	-	-					-	_	+	+-	\dashv
		•												-					+			_	-	+
												-		-							-	_		1
																				_				1.
																						\top		1
			<u> </u>						ļ															1
					\vdash		· · · · · · · · · · · · · · · · · · ·																	
					\vdash							_			ļ									
												-	ļ	+-	_			_						
												-	-	-	-						\dashv	4	+	
Notes:	data to	SAMPLE RECEIPT	RE	LIN	QUI	SHED E	BY:						ECI	 IVE	D B	Y:		· _ [+
LMAR	data to 1641@treadwellmilo.com	On Ice Ambient	Ś	ン <u>ユ</u>	<u> </u>	No	lu-		- 1	/15/ _ D.	ATE / TIM	S 1E	orkuser,		~	1) G	1	11	1/	5// D/	Z ATE 1	Jeg (TIME	
							-							"				_	<u> </u>					1
	[Yes No N/A							_	D,	ATE / TIM	IE								-	DA	ATE /	/ TIME	
																								1
	SICNATURE									D/	ATE / TIM	IE									DA	ATE /	/ TIME	

COOLER RECEIPT CHECKLIST



Login # 217779 Date Received 01/15/10	Number of coolers /
Client TREODURU & Project 1600	
Date Opened Oi/IS/10 By (print) M. VILL XIVIV (sign) Date Logged in W By (print) (sign)	my fu
Did cooler come with a shipping slip (airbill, etc) Shipping info	YES NO
2A. Were custody seals present? \(\subseteq YES \) (circle) on cooler How many \(Name \) 2B. Were custody seals intact upon arrival?	on samples Date YES NO MA
 Were custody papers dry and intact when received? Were custody papers filled out properly (ink, signed, etc)? Is the project identifiable from custody papers? (If so fill out to 6. Indicate the packing in cooler: (if other, describe) 	ES NO
Bubble Wrap	☐ None ☐ Paper towels
Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None	Temp(°C) 3 9
☐ Samples Received on ice & cold without a temperature	
☐ Samples received on ice directly from the field. Coolin	
8. Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer?	YES NO
9. Did all bottles arrive unbroken/unopened?	WES NO
10. Are samples in the appropriate containers for indicated tests?	VES NO
11. Are sample labels present, in good condition and complete?	NO
12. Do the sample labels agree with custody papers?	
13. Was sufficient amount of sample sent for tests requested?14. Are the samples appropriately preserved?	YES NO
15. Are bubbles > 6mm absent in VOA samples?	YES NO NA YES NO NA
16. Was the client contacted concerning this sample delivery?	YES NO WAYES NO
If YES, Who was called?By	Date:
COMMENTS	

SOP Volume:

Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc



Total Extractable Hydrocarbons Lab #: 217779 Location: 1600 63rd St EPA 3520C Client: Treadwell & Rollo Prep: Project#: 3494.01 Analysis: EPA 8015B 01/15/10 Matrix: Water Sampled: 01/15/10 Units: ug/L Received: Diln Fac: 1.000 01/18/10 Prepared: Batch#: 15<u>92</u>10 01/19/10 Analyzed:

Field ID: TR-1-1010 Lab ID: 217779-001

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 240 Y
 50

Surrogate %REC Limits
o-Terphenyl 87 39-150

Field ID: TR-4-1Q10 Lab ID: 217779-002

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 720 Y
 50

Surrogate %REC Limits
o-Terphenyl 93 39-150

Field ID: TR-3-1Q10 Lab ID: 217779-003

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 250 Y
 50

Surrogate %REC Limits
o-Terphenyl 103 39-150

Type: BLANK Lab ID: QC529335

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 50

Surrogate %REC Limits
o-Terphenyl 98 39-150

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 1

5 of 10

2.0



Batch QC Report

	Total Extractable Hydrocarbons							
Lab #:	217779	Location:	1600 63rd St					
Client:	Treadwell & Rollo	Prep:	EPA 3520C					
Project#:	3494.01	Analysis:	EPA 8015B					
Matrix:	Water	Batch#:	159210					
Units:	ug/L	Prepared:	01/18/10					
Diln Fac:	1.000	Analyzed:	01/19/10					

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC529336

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,282	91	34-144

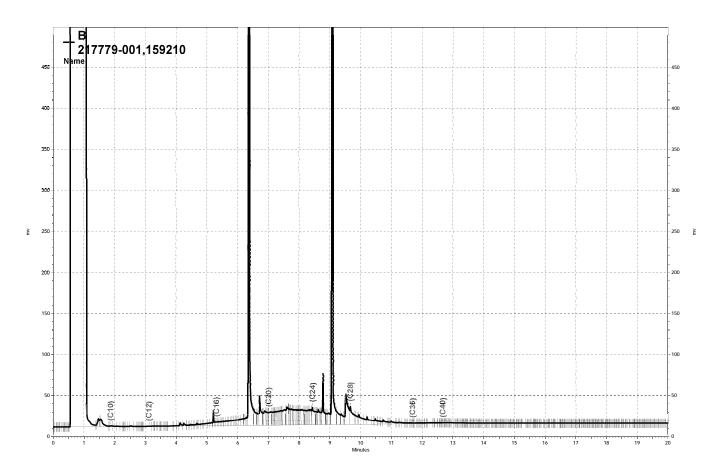
Surrogate	%REC	Limits
o-Terphenvl	100	39-150

Type: BSD Cleanup Method: EPA 3630C

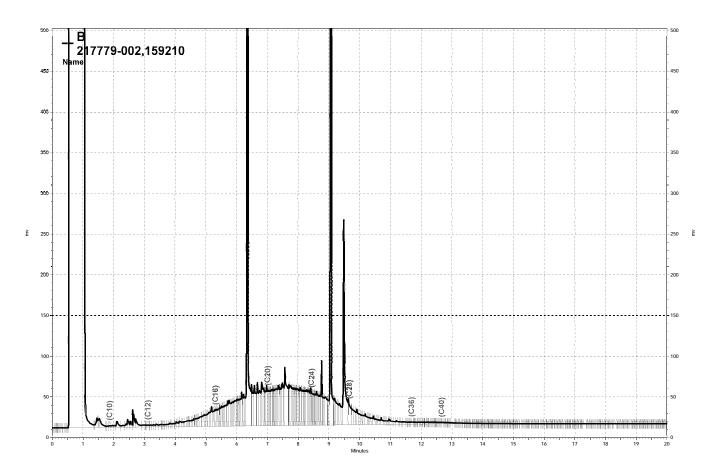
Lab ID: QC529337

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,072	83	34-144	10	48

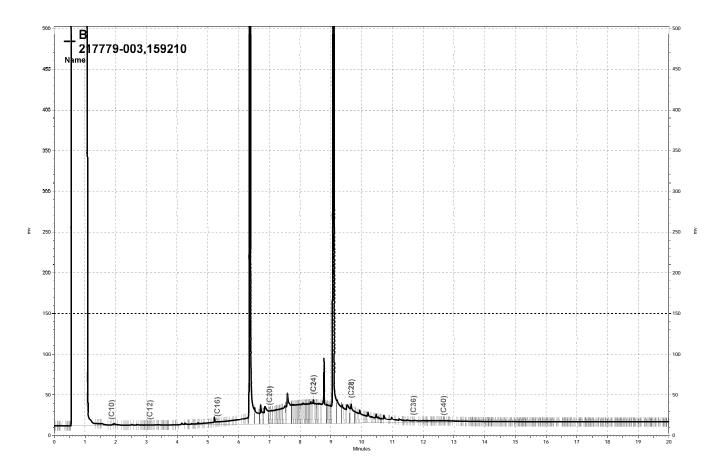
Surrogate	%REC	Limits	
o-Terphenyl	91	39-150	



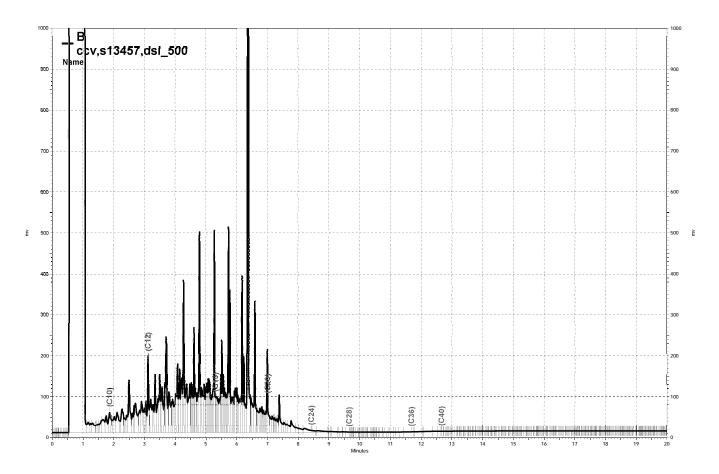
\\Lims\gdrive\ezchrom\Projects\GC15B\Data\019b014, B



\\Lims\gdrive\ezchrom\Projects\GC15B\Data\019b015, B



\Lims\gdrive\ezchrom\Projects\GC15B\Data\019b016, B



\Lims\gdrive\ezchrom\Projects\GC15B\Data\019b010, B