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## TRANSMITTAL

DATE: October 5, 2010 REFERENCE NO.: 629100

PROJECT NAME: 1436 Grant Avenue, San Lorenzo

TO: Mr. Mark Detterman  
Alameda County Environmental Health  
Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

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4:00 pm, Oct 12, 2010  
Alameda County  
Environmental Health

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QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report - Third Quarter 2010

As Requested  For Review and Comment  
 For Your Use

**COMMENTS:**

Should you have any questions regarding the contents of this document, please contact Robert Foss at (510) 420-3348.

Copy to: Phil Jaber, Encinal Properties

Completed by: Robert Foss  
[Please Print]

Signed: Robert Foss

Filing: Correspondence File

With respect to:

**Groundwater Monitoring Report - Third Quarter 2010**

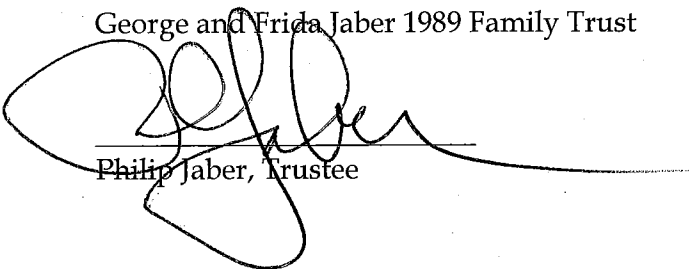
Former Olympic Service Station  
1436 Grant Avenue, San Lorenzo, CA

Dated October 5, 2010

ACEH Case No. RO0000373

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

George and Frida Jaber 1989 Family Trust



Philip Jaber, Trustee



# GROUNDWATER MONITORING REPORT - THIRD QUARTER 2010

FORMER OLYMPIC SERVICE STATION  
1436 GRANT AVENUE  
SAN LORENZO, CALIFORNIA

AGENCY CASE NO.      RO0373

OCTOBER 5, 2010  
REF. NO. 629100 (7)

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**Prepared by:  
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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA), on behalf of the George and Frida Jaber 1989 Family Trust, has prepared the *Groundwater Monitoring Report - Third Quarter 2010* documenting the August 5, 2010 groundwater monitoring and sampling activities and analytic results for the former Olympic Service Station site located at 1436 Grant Avenue in San Lorenzo, California.

### 1.1 SITE BACKGROUND

The site is located at the southwest corner of the intersection of Channel Street and Grant Avenue in San Lorenzo, California (Figure 1). San Lorenzo Auto Repair currently operates on the site. Soil and groundwater investigations, as well as five quarterly groundwater monitoring and sampling events occurred on the site from 1999 to 2002. No documented additional work occurred between 2002 and 2007. Alameda County Environmental Health Department (ACEHD) requested reinstatement of the groundwater monitoring program in a letter dated December 4, 2006, and monitoring/sampling resumed in February 2007. The property is owned by the George and Frida Jaber 1989 Family Trust and Mr. Tony Malonzo operates the auto repair shop at the site. Commercial properties are located south and southwest of the site. A school is located north of the site and the remaining properties in the vicinity of the site are residential.

On July 10, 1998, four steel, single-walled underground storage tanks (USTs) were removed from the site. These USTs consisted of one 10,000-gallon gasoline, one 8,000-gallon gasoline, one 5,000-gallon diesel and one 250-gallon used-oil tank (Figure 2). Six dispensers, located on two islands north of the auto repair building, were also removed. The primary constituents of concern (COCs) in groundwater at the site are benzene and methyl tert-butyl ether (MTBE).

### 1.2 SITE INFORMATION

<b>Site Address</b>	1436 Grant Avenue, San Lorenzo
<b>Site Use</b>	San Lorenzo Auto Repair
<b>Client and Contact</b>	George and Frida Jaber 1989 Family Trust, Philip Jaber
<b>Consultant and Contact Person</b>	CRA, Robert Foss
<b>Lead Agency and Contact</b>	ACEH, Mark Detterman

## 2.0 SITE ACTIVITIES AND RESULTS

### 2.1 CURRENT QUARTER'S ACTIVITIES

On May 5, 2010 and August 1, 2010, Muskan Environmental Sampling (MES) monitored and sampled groundwater at the site. On May 5, well MW-4 was monitored and sampled, and on August 5, all site wells, MW-1 through MW-4, were monitored and sampled. Figure 2 illustrates the site layout and location of all four wells. Depth to water in each well was monitored using an electric interface probe. A minimum of three casing volumes of groundwater were purged from each well prior to sampling. During purging, field parameters of temperature, pH, and electrical conductivity were monitored and recorded after the extraction of each successive casing volume. Purging was performed using a new disposable bailer for each well. Well purging continued until consecutive pH, specific conductance and temperature measurements appeared to stabilize. Groundwater sampling was performed using a new disposable bailer for each well. Monitoring well construction details are presented in Table 1. Monitoring and sampling activities were conducted following CRA's *Standard Field Procedures for Groundwater Monitoring and Sampling* included in Appendix A. Field data sheets for monitoring and sampling of each well are presented in Appendix B.

Groundwater samples were collected in laboratory-prepared containers, sealed, labeled and placed in an ice-cooled chest for subsequent delivery under chain-of-custody procedures to the analytical laboratory for chemical analysis. McCampbell Analytical, a state-certified laboratory, analyzed the groundwater samples for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021, MTBE by EPA Method 8260B, and total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M. Appendix C includes laboratory analytical reports of the two sampling events.

### 2.2 CURRENT QUARTER'S RESULTS

<b>Groundwater Flow Direction</b>	West-Southwest
<b>Hydraulic Gradient</b>	0.004
<b>Average Depth to Water</b>	7.37 feet
<b>Is Free Product Present on Site</b>	No
<b>Current Remediation Techniques</b>	Monitored Natural Attenuation

### **2.2.1 GROUNDWATER FLOW DIRECTION**

Based on the August 5, 2010 depth-to-water measurements, the overall groundwater flow direction and gradient beneath the site was calculated to the west-southwest at a gradient of 0.004 (Figure 2). The calculated groundwater flow direction and gradient are generally consistent with previous results, which indicate groundwater flow ranges from west to southwest. Depth-to-water and groundwater elevation data are presented in Table 2.

### **2.2.2 HYDROCARBON DISTRIBUTION IN GROUNDWATER**

TPHg was detected in well MW-4 at a concentration of 13,000 micrograms per liter ( $\mu\text{g/L}$ ) in the sample collected May 18, 2010. BTEX was also detected at concentrations of 620, 36, 170, and 12  $\mu\text{g/L}$ , respectively. MTBE was detected at a concentration of 1,200  $\mu\text{g/L}$ . Laboratory notes indicated the presence of sheen and that "weakly modified or unmodified gasoline was significant."

TPHg and BTEX were only detected in wells MW-3 and MW-4 during the August 5, 2010 sampling event. Reported TPHg concentrations in these wells were 450  $\mu\text{g/L}$  and 9,200  $\mu\text{g/L}$ , respectively. Reported benzene in well MW-3 was 110  $\mu\text{g/L}$  and 780  $\mu\text{g/L}$  in well MW-4. Toluene, ethylbenzene, and xylenes constituents were detected in well MW-3 at concentrations of 2.2  $\mu\text{g/L}$ , 0.76  $\mu\text{g/L}$  and 0.64  $\mu\text{g/L}$ , respectively. Reported concentrations of toluene, ethylbenzene, and xylenes in well MW-4 were 13  $\mu\text{g/L}$ , 230  $\mu\text{g/L}$ , and 4.3  $\mu\text{g/L}$ , respectively. Groundwater monitoring and analytical data are presented in Table 2 and the analytical laboratory report is presented as Appendix C.

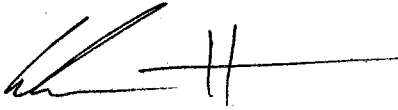
### **2.3 PROPOSED ACTIVITIES**

CRA will contract a groundwater sampling company to gauge and sample monitoring wells MW-1 through MW-4 according to the established semi-annual monitoring and reporting program for this site, with sampling activities conducted during the first and third quarters. Monitoring and sampling of well MW-4 only will occur during the fourth quarter of 2010. The fourth quarter 2010 data for MW-4 will be included in the First 2011 Semi-Annual Groundwater Monitoring and Sampling Report. Groundwater samples will be analyzed for TPHg by EPA Method 8015, BTEX by EPA Method 8021,

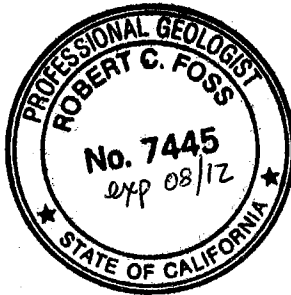


and MTBE by EPA Method 8260B. Following field activities, CRA will prepare a groundwater monitoring report that includes a groundwater contour map and tabulated analytical data.

All of Which is Respectfully Submitted,  
CONESTOGA-ROVERS & ASSOCIATES



Calvin Hee



Robert Foss, P.G. No. 7445

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## FIGURES



HA:ENCINAL PROPERTY-SAN LORENZO\FIGURES\VICINITY-MAP.A1

SOURCE: TOPOI MAPS

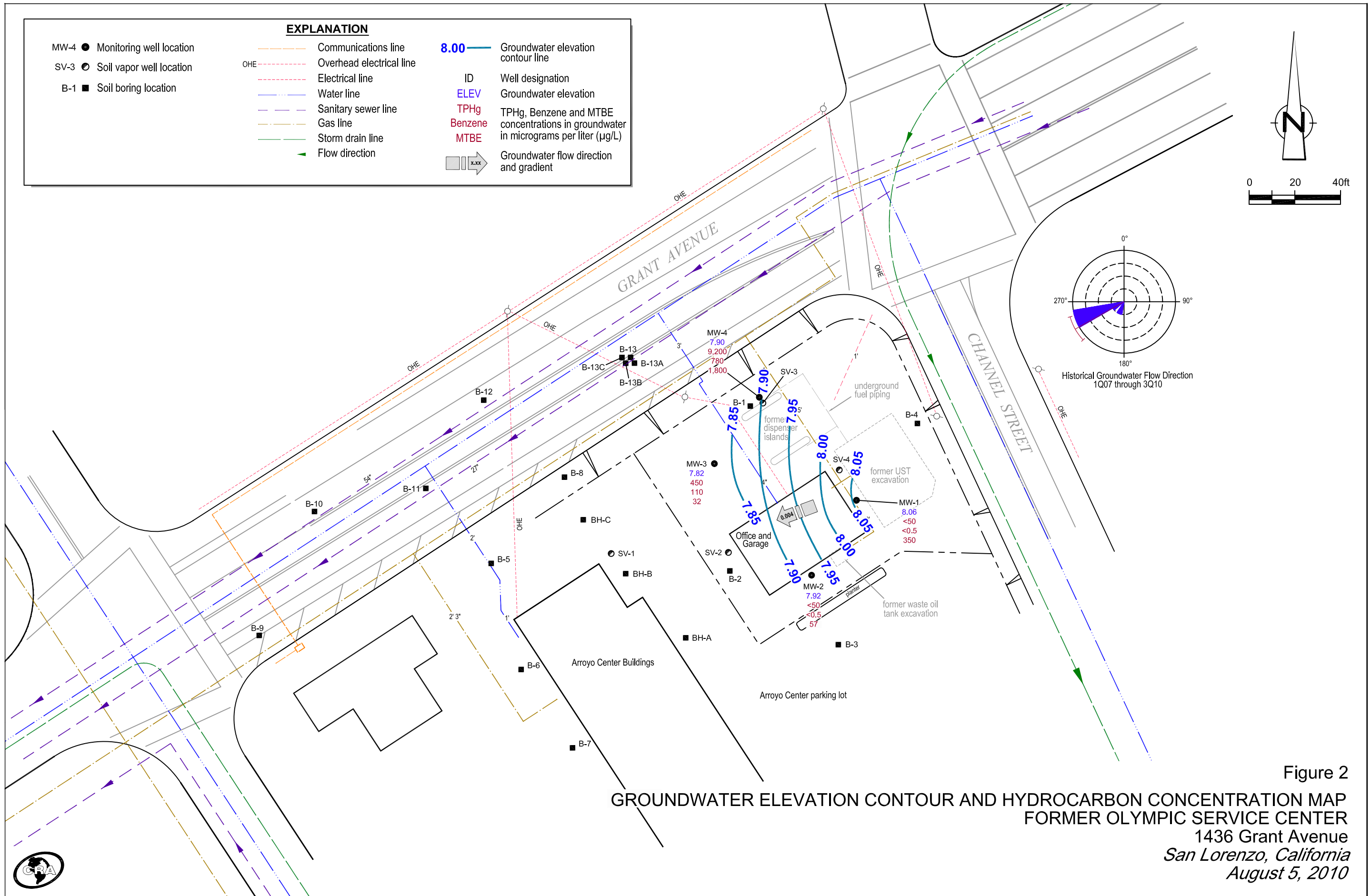
FIGURE 1

**Olympic Service Station**  
 1436 Grant Avenue  
 San Lorenzo, California



**CONESTOGA-ROVERS  
 & ASSOCIATES**

**Vicinity Map**



## TABLES

**MONITORING WELL CONSTRUCTION DETAILS  
FORMER OLYMPIC SERVICE STATON  
1436 GRANT AVENUE  
SAN LORENZO, CALIFORNIA**

<i>Well ID</i>	<i>Date Installed</i>	<i>Borehole Diameter (in)</i>	<i>Depth of Borehole (ft)</i>	<i>Casing Diameter (in)</i>	<i>Screened Interval (ft bgs)</i>	<i>Slot Size (in)</i>	<i>Filter Pack (ft bgs)</i>	<i>Bentonite Seal (ft bgs)</i>	<i>Cement (ft bgs)</i>	<i>TOC Elevation (ft above msl)</i>
MW-1	9/24/1999	8	26.5	2	5-26.5	0.020	3.5-26.5	3-3.5	1.5-3	15.71
MW-2	9/24/1999	8	20.0	2	5-20	0.020	3.5-20	3-3.5	1.5-3	15.17
MW-3	9/24/1999	8	21.5	2	5-21	0.020	3.5-21.5	3-3.5	1.5-3	15.13
MW-4	2/9/2010	10	10.0	4	5-10	0.010	4-10	3-4	0.5-3	15.15

**Abbreviations / Notes**

ft = feet

in = inches

ft bgs = feet below grade surface

ft above msl = feet above mean sea level

TOC = top of casing

TOC elevations were surveyed on March 8, 2007 and March 17, 2010 by Virgil Chavez Land Surveying.

Prior to this date, TOC elevation were relative to a project datum determined by Aqua Science Engineers, Inc. in 1998.

TABLE 2

GROUNDWATER ANALYTICAL DATA  
 ENCINAL PROPERTIES  
 FORMER OLYMPIAN SERVICE STATION  
 1436 GRANT AVENUE  
 SAN LORENZO, CALIFORNIA

Well ID	Date	DTW	GWE		TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		DIPE	TAME	ETBE	TBA	Ethanol	EDB	1,2-DCA	Notes
TOC	Sampled	(ft)	(ft above msl)	Oil & Grease	Concentrations in micrograms per liter (µg/L)										SVOCs & HVOCs						
(ft above msl)																					
ESL <sup>2</sup> : Groundwater is not a current or potential drinking water resource				NE	NE	210	210	46	130	43	100	1,800	--	NE	NE	NE	18,000	NE	NE	200	
<i>Grab Groundwater Samples</i>																					
Pit Water	9/13/1998	--	--	--	--	2,100	3,600	350	130	39	380	17,000	--	--	--	--	--	--	--	--	
BH-A	4/30/2002	17/8	--	--	<100	<100	180	<0.50	<0.50	8.8	<0.50	82	--	<0.50	<0.50	<0.50	<5.0	--	--	--	
BH-B	4/30/2002	16/8	--	--	<100	<200	2,300	120	11	60	150	2,000	--	<5.0	<5.0	<5.0	<5.0	--	--	--	
BH-C	4/30/2002	16/8	--	--	<100	<150	1,200	57	0.72	43	87	240	--	<0.50	1.0	<0.50	<5.0	--	--	--	
B-1-gw	2/25/2008	3/3.95	--	--	--	260,000	4,600	330	<5.0	33	<5.0	370	--	<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	*
B-2-gw	2/25/2008	7.5/6.95	--	--	--	1,900	540	12	<2.5	<2.5	<2.5	220	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
B-3-gw	2/26/2008	8/NA	--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	4.0	--	<0.5	<0.5	<0.5	<2.0	<50	<0.5	<0.5	*
B-4-gw	2/25/2008	7.5/7.80	--	--	--	6,800	7,300	150	<50	150	<50	2,700	--	<50	<50	<50	1,700	<5,000	<50	<50	*
B-5-gw	2/26/2008	8/6.40	--	--	--	250	320	<10	<10	13	<10	630	--	<10	<10	<10	<40	<1,000	<10	<10	*
B-6-gw	2/26/2008	8/6.95	--	--	--	120	<50	<5.0	<5.0	<5.0	<5.0	240	--	<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	*
B-7-gw	2/26/2008	8/6.55	--	--	--	84	<50	<0.5	<0.5	<0.5	<0.5	27	--	<0.5	<0.5	<0.5	<2.0	<50	<0.5	<0.5	*
B-8-gw	2/25/2008	8/6.10	--	--	--	1,000	930	37	<2.5	64	23	160	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
B-9	2/11/2010	6.33	--	--	--	<50	<50	<2.5	<2.5	<2.5	<2.5	160	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
B-10	2/11/2010	6.89	--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	5.1	--	<0.5	<0.5	<0.5	<2.0	<50	<0.5	<0.5	*
B-11	2/10/2010	5.20	--	--	--	3,700	130	0.69	<0.5	<0.5	<0.5	25	--	<0.5	<0.5	<0.5	<2.0	<50	<0.5	<0.5	*
B-12	2/11/2010	6.65	--	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	1.2	--	<0.5	<0.5	<0.5	<2.0	<50	<0.5	<0.5	*
B-13C	2/12/2010	8.97	--	--	--	3,400	2,300	<2.5	<2.5	<2.5	<2.5	92	--	<2.5	<2.5	<2.5	92	<250	<2.5	<2.5	*
<i>Quarterly Groundwater Samples</i>																					
MW-1	10/6/1999	8.35	6.65	--	--	84	3,900	<25	<25	<25	<25	3,500	--	--	--	--	--	--	--	--	*
15.00	1/13/2000	7.90	7.10	--	--	<50	<1,300	18	<13	<13	<13	1,700	--	--	--	--	--	--	--	--	*
	4/12/2000	7.08	7.92	--	--	56	<1,000	66	<10	<10	<10	1,600	--	--	--	--	--	--	--	--	*
	7/19/2000	7.66	7.34	--	--	52	<1,000	<10	<10	<10	<10	1,200	--	--	--	--	--	--	--	--	*
	10/25/2000	7.91	7.09	--	--	76	4,100	120	<25	<25	<25	6,100	--	--	--	--	--	--	--	--	*
	2/16/2007	6.32	8.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/2007	5.88	9.12	--	<250	<50	<50	<1.2	<1.2	<1.2	<1.2	78	--	<1.2	<1.2	<1.2	<12	<120	<1.2	<1.2	*
15.71	5/1/2007	7.24	8.47	--	<250	<50	<50	<5.0	<5.0	<5.0	<5.0	250	--	<5.0	<5.0	<5.0	<50	<500	<5.0	<5.0	*
	8/1/2007	7.77	7.94	--	--	<50	<50	<25	<25	<25	<25	520	--	<25	<25	<25	<250	<2500	<25	<25	*
	11/1/2007	7.71	8.00	--	--	<50	<50	<12	<12	<12	<12	460	--	<12	<12	<12	<120	<1,200	<12	<12	
	2/1/2008	5.71	10.00	--	--	<50	<50	<2.5	<2.5	<2.5	<2.5	110	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	*
	5/2/2008	7.52	8.19	--	<250	<50	<50	<5.0	<5.0	<5.0	<5.0	240	--	<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	
	8/1/2008	8.02	7.69	--	--	<50	<50	<10	<10	<10	<10	500	--	<10	<10	<10	<40	<1,000	<10	<10	*
	11/4/2008	7.28	8.43	--	--	<50	<50	<5.0	<5.0	<5.0	<5.0	260	--	<5.0	<5.0	<5.0	26	<500	<5.0	<5.0	-
	8/11/2009	8.08	7.63	--	--	<50	<50	<5.0	<5.0	<5.0	<5.0	270	--	<5.0	<5.0	<5.0	<20	<500	<5.0	<5.0	-
	2/3/2010	6.14	9.57	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	39	--	--	--	--	--	--	--	--	-
	5/18/2010	7.09	8.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



TABLE 2

GROUNDWATER ANALYTICAL DATA  
 ENCINAL PROPERTIES  
 FORMER OLYMPIAN SERVICE STATION  
 1436 GRANT AVENUE  
 SAN LORENZO, CALIFORNIA

Well ID TOC (ft above msl)	Date Sampled	DTW (ft)	GWE (ft above msl)	Oil & Grease	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	SVOCs & HVOCs							Notes			
					Concentrations in micrograms per liter (µg/L)												DIPE	TAME	ETBE		TBA	Ethanol	EDB
ESL: Groundwater is not a current or potential drinking water resource				NE	NE	210	210	46	130	43	100	1,800	--	NE	NE	NE	18,000	NE	NE	200			
	8/5/2010	7.65	8.06	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	350	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/6/1999	7.87	6.59	<1,000	<500	<50	70	<0.5	<0.5	<0.5	<0.5	11	ND	--	--	--	--	--	--	--	--	--	*
14.46	1/13/2000	7.46	7.00	<1,000	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	6.2	ND	--	--	--	--	--	--	--	--	--	
	4/12/2000	6.67	7.79	1,100	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	39	--	--	--	--	--	--	--	--	--	--	
	7/19/2000	7.23	7.23	1,300	<500	<50	<1,000	<10	<10	<10	<10	990	--	--	--	--	--	--	--	--	--	--	
	10/25/2000	7.52	6.94	--	<500	<50	370	<2.5	<2.5	<2.5	<2.5	690	--	--	--	--	--	--	--	--	--	--	
	2/16/2007	5.89	8.57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/1/2007	5.45	9.01	--	<250	<50	<50	<0.5	<0.5	<0.5	<0.5	9.8	--	<0.5	<0.5	<0.5	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	*
15.17	5/1/2007	6.83	8.34	--	<250	<50	<50	<5.0	<5.0	<5.0	<5.0	120	--	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	<5.0	*
	8/1/2007	7.35	7.82	--	--	<50	<50	<5.0	<5.0	<5.0	<5.0	130	--	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	<5.0	*
	11/1/2007	7.27	7.90	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	19	--	<0.5	<0.5	<0.5	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	
	2/1/2008	5.25	9.92	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	3.3	--	<0.5	<0.5	<0.5	<2.0	<5.0	<0.5	<0.5	<0.5	<0.5	*
	5/2/2008	7.12	8.05	--	--	<50	<50	<2.5	<2.5	<2.5	<2.5	83.0	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	<2.5	<2.5	
	8/1/2008	7.59	7.58	--	--	<50	<50	<1.0	<1.0	<1.0	<1.0	52	--	<1.0	<1.0	<1.0	<4.0	<100	<1.0	<1.0	<1.0	<1.0	*
MW-2	11/4/2008	6.84	8.33	--	--	80	<50	<0.5	<0.5	<0.5	<0.5	5.9	--	<0.5	<0.5	<0.5	<2.0	<5.0	<0.5	<0.5	<0.5	<0.5	*
cont.	8/11/2009	7.65	7.52	--	--	<50	<50	<0.5	<0.5	<0.5	<0.5	9.4	--	<0.5	<0.5	<0.5	<2.0	<5.0	<0.5	<0.5	<0.5	<0.5	--
	2/3/2010	5.75	9.42	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	0.86	--	--	--	--	--	--	--	--	--	--	--
	5/18/2010	6.67	8.50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/5/2010	7.25	7.92	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	57	--	--	--	--	--	--	--	--	--	--	--
MW-3	10/6/1999	7.90	6.51	--	--	300	3,900	900	89	160	560	790	--	--	--	--	--	--	--	--	--	--	--
14.41	1/13/2000	7.50	6.91	--	--	210	740	110	4.8	35	18	290	--	--	--	--	--	--	--	--	--	--	--
	4/12/2000	6.61	7.80	--	--	640	2,200	650	9.7	180	24	140	--	--	--	--	--	--	--	--	--	--	--
	7/19/2000	7.24	7.17	--	--	270	2,700	420	<2.5	160	<2.5	99	--	--	--	--	--	--	--	--	--	--	*
	10/25/2000	7.52	6.89	--	--	150	710	180	<2.5	24	<2.5	71	--	--	--	--	--	--	--	--	--	--	*
	2/16/2007	5.90	8.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/1/2007	5.44	8.97	--	<250	<50	82	20	<1.7	<1.7	<1.7	100	--	<1.7	<1.7	<1.7	<17	<170	<1.7	<1.7	<1.7	<1.7	*
15.13	5/1/2007	6.87	8.26	--	<250	<50	<50	<5.0	<5.0	<5.0	<5.0	88	--	<5.0	<5.0	<5.0	<5.0	<500	<5.0	<5.0	<5.0	<5.0	*
	8/1/2007	7.40	7.73	--	--	<50	130	12	<2.5	<2.5	<2.5	98	--	<2.5	<2.5	<2.5	<25	<250	<2.5	<2.5	<2.5	<2.5	*
	11/1/2007	7.35	7.78	--	--	<50	77	<2.5	<2.5	<2.5	<2.5	68	--	<2.5	<2.5	<2.5	<25	<250	<2.5	<2.5	<2.5	<2.5	*
	2/1/2008	5.28	9.85	--	--	<50	<50	<2.5	<2.5	<2.5	<2.5	97	--	<2.5	<2.5	<2.5	<10	<250	<2.5	<2.5	<2.5	<2.5	
	5/2/2008	7.15	7.98	--	--	<50	68	2.3	<1.7	<1.7	<1.7	86	--	<1.7	<1.7	<1.7	7.20	<170	<1.7	<1.7	<1.7	<1.7	
	8/1/2008	7.66	7.47	--	--	<50	85	3.5	<1.0	<1.0	<1.0	66	--	<1.0	<1.0	<1.0	7.2	<100	<1.0	<1.0	<1.0	<1.0	*
	11/4/2008	6.96	8.17	--	--	<50	<50	<1.0	<1.0	<1.0	<1.0	40	--	<1.0	<1.0	<1.0	<4.0	<100	<1.0	<1.0	<1.0	<1.0	
	8/11/2009	7.72	7.41	--	--	<50	110	33	<0.5	<0.5	<0.5	28	--	<0.5	<0.5	<0.5	<2.0	<5.0	<0.5	<0.5	<0.5	<0.5	*
	2/3/2010	5.72	9.41	--	--	--	<50	0.55	<0.5	<0.5	<0.5	25	--	--	--	--	--	--	--	--	--	--	--
	5/18/2010	6.73	8.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2

GROUNDWATER ANALYTICAL DATA  
 ENCINAL PROPERTIES  
 FORMER OLYMPIAN SERVICE STATION  
 1436 GRANT AVENUE  
 SAN LORENZO, CALIFORNIA

Well ID TOC (ft above msl)	Date Sampled	DTW (ft)	GWE (ft above msl)	Oil & Grease	TPH <sub>mo</sub>	TPH <sub>d</sub>	TPH <sub>g</sub>	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	SVOCs & HVOCs								Notes	
													DIPE	TAME	ETBE	TBA	Ethanol	EDB	1,2-DCA			
					Concentrations in micrograms per liter (µg/L)																	
ESL <sup>a</sup> : Groundwater is not a current or potential drinking water resource					NE	NE	210	210	46	130	43	100	1,800	--	NE	NE	NE	18,000	NE	NE	200	
	8/5/2010	7.31	7.82	--	--	--	450	110	2.2	0.76	0.64	32	--	--	--	--	--	--	--	--	--	*
MW-4	5/18/2010	6.68	8.47	--	--	--	13,000	620	36	170	12	1,200	--	--	--	--	--	--	--	--	--	*
15.15	8/5/2010	7.25	7.90	--	--	--	9,200	780	13	230	4.3	1,800	--	--	--	--	--	--	--	--	--	*

Abbreviations / Notes

<sup>a</sup> = San Francisco Bay Regional Water Quality Control Board ESL for groundwater where groundwater is not a current or potential drinking water resource

NE = Not Evaluated

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation in feet above mean sea level

ft above msl = feet above mean sea level

17/8 = Depth to first encountered groundwater/depth of static groundwater

<n = Not detected above laboratory reporting limit

-- = Not sampled, not analyzed, not available

ND = Not detected above laboratory reporting limit

Oil and grease by EPA Method 5520 E&F

TPH<sub>d</sub> = Total Petroleum Hydrocarbons as diesel range by EPA Method 8015

TPH<sub>g</sub> = Total Petroleum Hydrocarbons as gasoline range by EPA Method 8015

TPH<sub>mo</sub> = Total Petroleum Hydrocarbons as motor oil by EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020

MTBE = Methyl tertiary butyl ether by EPA Method 8260

Di-isopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), ethyl tertiary-butyl ether (ETBE), tertiary-butyl alcohol (TBA) by EPA Method 8260B

SVOCs = Semi-volatile organic compounds by EPA Method 8270, refer to corresponding analytical laboratory report for a full list of compounds

HVOCs = Halogenated volatile organic compound by EPA Method 8010, refer to corresponding analytical laboratory report for a full list of compounds

1,2 DCA = 1,2 dichloroethane

EDB = 1,2-dibromoethane

\* = See Analytical Laboratory Report for laboratory sample description and TPH chromatogram interpretation.

TOC elevations were surveyed on March 8, 2007 by Virgil Chavez Land Surveying. Prior to this date, TOC elevation were relative to a project datum determined by Aqua Science Engineers, Inc. in 1998.

APPENDIX A

STANDARD FIELD PROCEDURES  
FOR GROUNDWATER MONITORING AND SAMPLING

# Conestoga–Rovers & Associates

## STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Cambria's specific field procedures are summarized below.

### **Groundwater Elevation Monitoring**

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain non-aqueous phase liquid (NAPL) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of NAPL, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be measured last. In wells with a history of NAPL, the NAPL level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

### **Groundwater Purging and Sampling**

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of NAPL or floating NAPL globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no NAPL is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at least once per well casing volume removed. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged. If the well is slow to recharge, a sample shall be collected after the water column is allowed to recharge to 80% of the pre-purging static water level. If the well does not recover to 80% in 2 hours, a sample shall be collected once there is enough groundwater in the well. Groundwater samples shall be collected using clean disposable bailers or pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be

# Conestoga–Rovers & Associates

used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

## **Sample Handling**

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. A copy of the COC shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

## **Waste Handling and Disposal**

Groundwater extracted during sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums and shall be labeled with the contents, date of generation, generator identification, and consultant contact. Extracted groundwater may be disposed offsite by a licensed waste handler or may be treated and discharged via an operating onsite groundwater extraction/treatment system.

APPENDIX B

FIELD DATA SHEETS





## WELL SAMPLING FORM

<b>Date:</b>		8/5/2010				
<b>Client:</b>		Conestoga-Rovers and Associates				
<b>Site Address:</b>		1436 Grant Avenue, San Lorenzo, CA				
<b>Well ID:</b>		MW-1				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
		Pre Purge	Post Purge			
<b>Total Well Depth:</b>		24.38	Fe=	mg/L		
<b>Depth to Water:</b>		7.65	ORP=	mV		
<b>Water Column Height:</b>		16.73	DO=	mg/L		
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		2.67	<b>COMMENTS:</b> very turbid, silty			
<b>3 Casing Volumes (gal):</b>		8.01				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>		
11:15	3.0	18.7	6.71	948		
11:20	6.0	18.9	6.78	1003		
11:25	8.0	18.9	6.80	996		
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-1	8/5/10	11:30	40 mL VOA	HCl, ICE	TPH, BTEX, MTBE	8015, 8260
				<b>Signature:</b>		





## WELL SAMPLING FORM

<b>Date:</b> 8/5/2010																																
<b>Client:</b> Conestoga-Rovers and Associates																																
<b>Site Address:</b> 1436 Grant Avenue, San Lorenzo, CA																																
<b>Well ID:</b> MW-2																																
<b>Well Diameter:</b> 2"																																
<b>Purging Device:</b> Disposable Bailer																																
<b>Sampling Method:</b> Disposable Bailer																																
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"></td> <td style="width: 25%; text-align: center;">Pre Purge</td> <td style="width: 25%; text-align: center;">Post Purge</td> </tr> </table>			Pre Purge	Post Purge																												
	Pre Purge	Post Purge																														
<b>Total Well Depth:</b>	19.35																															
<b>Depth to Water:</b>	7.25																															
<b>Water Column Height:</b>	12.10																															
<b>Gallons/ft:</b>	0.16																															
<b>1 Casing Volume (gal):</b>	1.93																															
<b>3 Casing Volumes (gal):</b>	5.79																															
<b>COMMENTS:</b> very turbid, silty																																
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>																												
10:10	2.0	18.9	6.85	1195																												
10:15	4.0	19.4	6.81	1210																												
10:20	6.0	19.6	6.88	1216																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Sample ID:</th> <th style="width: 20%;">Sample Date:</th> <th style="width: 10%;">Sample Time:</th> <th style="width: 20%;">Container Type</th> <th style="width: 15%;">Preservative</th> <th style="width: 15%;">Analytes</th> <th style="width: 10%;">Method</th> </tr> </thead> <tbody> <tr> <td>MW-2</td> <td>8/5/10</td> <td>10:25</td> <td>40 mL VOA</td> <td>HCl, ICE</td> <td>TPH, BTEX, MTBE</td> <td>8015, 8260</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method	MW-2	8/5/10	10:25	40 mL VOA	HCl, ICE	TPH, BTEX, MTBE	8015, 8260														
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method																										
MW-2	8/5/10	10:25	40 mL VOA	HCl, ICE	TPH, BTEX, MTBE	8015, 8260																										
<b>Signature:</b>																																



## WELL SAMPLING FORM

<b>Date:</b> 8/5/2010						
<b>Client:</b> Conestoga-Rovers and Associates						
<b>Site Address:</b> 1436 Grant Avenue, San Lorenzo, CA						
<b>Well ID:</b> MW-3						
<b>Well Diameter:</b> 2"						
<b>Purging Device:</b> Disposable Bailer						
<b>Sampling Method:</b> Disposable Bailer						
Pre Purge                      Post Purge						
Total Well Depth:	19.05 Fe=                      mg/L                      mg/L					
Depth to Water:	7.31 ORP=                      mV                      mV					
Water Column Height:	11.74 DO=                      mg/L                      mg/L					
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.87					
3 Casing Volumes (gal):	5.61					
<b>COMMENTS:</b> very turbid, silty						
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>		
10:45	2.0	18.7	6.84	1175		
10:50	4.0	18.5	6.84	1170		
10:55	5.5	18.6	6.84	1172		
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-3	8/5/10	11:00	40 mL VOA	HCl, ICE	TPH, BTEX, MTBE	8015, 8260
<b>Signature:</b>						



## WELL SAMPLING FORM

<b>Date:</b>		8/5/2010				
<b>Client:</b>		Conestoga-Rovers and Associates				
<b>Site Address:</b>		1436 Grant Avenue, San Lorenzo, CA				
<b>Well ID:</b>		MH-4				
<b>Well Diameter:</b>		4"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer	Pre Purge	Post Purge		
<b>Total Well Depth:</b>		9.53	Fe=	mg/L		
<b>Depth to Water:</b>		7.25	ORP=	mV		
<b>Water Column Height:</b>		2.28	DO=	mg/L		
<b>Gallons/ft:</b>		0.65				
<b>1 Casing Volume (gal):</b>		1.48	<b>COMMENTS:</b> Amid			
<b>3 Casing Volumes (gal):</b>		4.44				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>	<b>pH</b>	<b>COND. (µS)</b>		
11:45	1.5	18.0	6.91	1070		
11:47	3.0	17.9	6.94	1089		
11:50	4.5	17.8	6.99	1085		
<b>Sample ID:</b>	<b>Sample Date:</b>	<b>Sample Time:</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MH4	8/5/10	11:55	40 mL VOA	HCl, ICE	TPHg, BTEX, MTBE	8015, 8260
<b>Signature:</b>						





## WELL SAMPLING FORM

Date:		5/18/2010				
Client:		Conestoga-Rovers and Associates				
Site Address:		1436 Grant Avenue, San Lorenzo, CA				
Well ID:		MW4				
Well Diameter:		4"				
Purging Device:		3" Disposable Bailer				
Sampling Method:		Disposable Bailer	Pre Purge	Post Purge		
Total Well Depth:		9.53	Fe=	mg/L		
Depth to Water:		6.68	ORP=	mV		
Water Column Height:		2.85	DO=	mg/L		
Gallons/ft:		0.65				
1 Casing Volume (gal):		1.85	COMMENTS: turbid			
3 Casing Volumes (gal):		5.55				
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)		
9:40	2.0	17.4	6.98	1094		
9:45	4.0	17.7	7.02	1070		
9:50	5.0	17.5	7.10	1058		
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW4	5/18/10	9:55	40 mL VOA	HCl, ICE	TPH, BTEX, MTBE	8015, 8021, 8260
				Signature:		

APPENDIX C

CERTIFIED ANALYTICAL REPORTS AND  
CHAIN-OF-CUSTODY DOCUMENTATION



**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

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #629100; Encinal Properties-Former Olympic Station	Date Sampled: 05/18/10
		Date Received: 05/18/10
	Client Contact: Eric Syrstad	Date Reported: 05/21/10
	Client P.O.:	Date Completed: 05/21/10

**WorkOrder: 1005434**

May 21, 2010

Dear Eric:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#629100; Encinal Properties-Former Olympic Station**
- 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: 1005434**

**ClientCode: CETE**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

<b>Report to:</b>	Eric Syrstad	Email: esyrstad@croworld.com	<b>Bill to:</b>	Accounts Payable	<b>Requested TAT:</b>	<b>5 days</b>
	Conestoga-Rovers & Associates	cc:		Conestoga-Rovers & Associates	<i>Date Received:</i>	<b>05/18/2010</b>
	5900 Hollis St, Suite A	PO:		5900 Hollis St, Ste. A	<i>Date Printed:</i>	<b>05/18/2010</b>
	Emeryville, CA 94608	ProjectNo: #629100; Encinal Properties-Former		Emeryville, CA 94608		
	(510) 420-3327    FAX (510) 420-9170	Olympic Station				

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	
1005434-001	MW-4	Water	5/18/2010 9:55	<input type="checkbox"/>	A	B	A										

**Test Legend:**

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

**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: **Conestoga-Rovers & Associates** Date and Time Received: **5/18/2010 5:17:44 PM**  
Project Name: **#629100; Encinal Properties-Former Olympic Statio** Checklist completed and reviewed by: **Melissa Valles**  
WorkOrder N°: **1005434** Matrix Water Carrier: EnviroTech (MTZ)

#### 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: 6°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: 50693

WorkOrder 1005434

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1005426-005A			
	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) <sup>f</sup>	ND	60	101	106	5.54	104	108	4.17	70 - 130	20	70 - 130	20
MTBE	ND	10	89.6	92.4	3.12	100	109	8.56	70 - 130	20	70 - 130	20
Benzene	ND	10	102	107	4.64	85.2	91.3	6.95	70 - 130	20	70 - 130	20
Toluene	ND	10	104	109	4.49	83.7	89.5	6.65	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	86.5	94.1	8.38	83.5	89.5	6.91	70 - 130	20	70 - 130	20
Xylenes	ND	30	106	114	7.37	84.4	89.6	5.99	70 - 130	20	70 - 130	20
%SS:	102	10	103	101	1.27	91	93	1.68	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 50693 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1005434-001A	05/18/10 9:55 AM	05/20/10	05/20/10 12:53 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.



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 50719

WorkOrder 1005434

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 1005444-014A			
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
Methyl-t-butyl ether (MTBE)	ND	10	118	121	2.66	102	99.4	3.01	70 - 130	30	70 - 130	30
%SS1:	101	25	116	117	1.11	94	94	0	70 - 130	30	70 - 130	30

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

#### BATCH 50719 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1005434-001B	05/18/10 9:55 AM	05/21/10	05/21/10 5:02 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount Spiked)$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



**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

Conestoga-Rovers & Associates  5900 Hollis St, Suite A  Emeryville, CA 94608	Client Project ID: #629100; Encinal Properties-Former Olympic Station	Date Sampled: 08/05/10
		Date Received: 08/05/10
	Client Contact: Eric Syrstad	Date Reported: 08/10/10
	Client P.O.:	Date Completed: 08/10/10

**WorkOrder: 1008125**

August 10, 2010

Dear Eric:

Enclosed within are:

- 1) The results of the **4** analyzed samples from your project: **#629100; Encinal Properties-Former Olympic Station**
- 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.





# McC Campbell Analytical, Inc.



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

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1008125**

**ClientCode: CETE**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

<b>Report to:</b>		<b>Bill to:</b>	<b>Requested TAT: 5 days</b>
Eric Syrstad	Email: esyrstad@croworld.com	Accounts Payable	
Conestoga-Rovers & Associates	cc:	Conestoga-Rovers & Associates	<i>Date Received: 08/05/2010</i>
5900 Hollis St, Suite A	PO:	5900 Hollis St, Ste. A	<i>Date Printed: 08/05/2010</i>
Emeryville, CA 94608	ProjectNo: #629100; Encinal Properties-Former	Emeryville, CA 94608	
(510) 420-3309    FAX (510) 420-9170	Olympic Station		

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	
1008125-001	MW-1	Water	8/5/2010 11:30	<input type="checkbox"/>	A	B	A										
1008125-002	MW-2	Water	8/5/2010 10:25	<input type="checkbox"/>	A	B											
1008125-003	MW-3	Water	8/5/2010 11:00	<input type="checkbox"/>	A	B											
1008125-004	MW-4	Water	8/5/2010 11:55	<input type="checkbox"/>	A	B											

**Test Legend:**

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

**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: **Conestoga-Rovers & Associates** Date and Time Received: **8/5/2010 12:49:46 PM**  
Project Name: **#629100; Encinal Properties-Former Olympic Statio** Checklist completed and reviewed by: **Maria Venegas**  
WorkOrder N°: **1008125** Matrix Water Carrier: Client Drop-In

#### 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: 13.4°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.

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Client contacted: Date contacted: Contacted by:

Comments:







### QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52265

WorkOrder 1008125

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 1008041-006A			
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) <sup>£</sup>	ND	60	94.7	98.3	3.79	94.4	94	0.386	70 - 130	20	70 - 130	20
MTBE	ND	10	125	119	4.82	116	115	1.27	70 - 130	20	70 - 130	20
Benzene	ND	10	113	107	5.96	111	107	3.12	70 - 130	20	70 - 130	20
Toluene	ND	10	97.4	97.6	0.173	100	95.1	5.08	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	98.1	96.6	1.47	99	94.8	4.40	70 - 130	20	70 - 130	20
Xylenes	ND	30	110	110	0	111	107	3.78	70 - 130	20	70 - 130	20
%SS:	103	10	106	102	3.30	107	104	3.29	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 52265 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1008125-001A	08/05/10 11:30 AM	08/06/10	08/06/10 1:42 PM	1008125-001A	08/05/10 11:30 AM	08/10/10	08/10/10 2:40 AM
1008125-002A	08/05/10 10:25 AM	08/06/10	08/06/10 5:45 PM	1008125-003A	08/05/10 11:00 AM	08/10/10	08/10/10 1:12 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.



**QC SUMMARY REPORT FOR SW8021B/8015Bm**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52272

WorkOrder 1008125

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 1008051-002A			
	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) <sup>f</sup>	ND	60	99.7	94.2	5.73	93.9	102	8.25	70 - 130	20	70 - 130	20
MTBE	ND	10	106	101	5.09	108	99.3	8.18	70 - 130	20	70 - 130	20
Benzene	ND	10	97.2	94.9	2.38	94.4	92.8	1.73	70 - 130	20	70 - 130	20
Toluene	ND	10	95.6	95.4	0.208	93	92.5	0.589	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	96.4	94.4	2.12	93.7	93.6	0.182	70 - 130	20	70 - 130	20
Xylenes	ND	30	98.3	96.2	2.07	96.3	96.1	0.252	70 - 130	20	70 - 130	20
%SS:	99	10	97	99	1.80	96	97	0.749	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 52272 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1008125-004A	08/05/10 11:55 AM	08/06/10	08/06/10 2:42 PM	1008125-004A	08/05/10 11:55 AM	08/10/10	08/10/10 3:09 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.



**QC SUMMARY REPORT FOR SW8260B**

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 52328

WorkOrder 1008125

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 1008125-002B			
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
Methyl-t-butyl ether (MTBE)	57	10	129	130	0.221	121	117	3.22	70 - 130	30	70 - 130	30
%SS1:	109	25	108	108	0	101	101	0	70 - 130	30	70 - 130	30

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

BATCH 52328 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1008125-001B	08/05/10 11:30 AM	08/06/10	08/06/10 8:16 PM	1008125-002B	08/05/10 10:25 AM	08/06/10	08/06/10 8:58 PM
1008125-003B	08/05/10 11:00 AM	08/06/10	08/06/10 5:26 PM	1008125-004B	08/05/10 11:55 AM	08/06/10	08/06/10 9:43 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.