

Roya C. Kambin Project Manager Marketing Business Unit Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6270 RKLG@chevron.com

Alameda County Health Care Services Agency Environmental Health Department Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Unocal #5781

Union Oil Site 351640 3535 Pierson Street Oakland, CA **RECEIVED**

8:55 am, Mar 05, 2012

Alameda County Environmental Health

I have reviewed the attached report dated March 1, 2012.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Roya Kambin Project Manager

Attachment: Report



10969 Trade Center Drive Rancho Cordova, California 95670

Telephone: (916) 889-8900 Fax: (916) 889-8999

http://www.craworld.com

March 1, 2012 Reference No. 060723

Mr. Keith Nowell Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: First Quarter 2012

Groundwater Monitoring and Sampling Report

UNOCAL #5781

Union Oil Company of California Facility ID 351640

3535 Pierson Street Oakland, California Fuel Leak Case RO0253

Dear Mr. Nowell:

On behalf of Chevron Environmental Management Company, for itself and as Attorney-in-Fact for Union Oil Company of California (hereinafter "EMC"), Conestoga-Rovers & Associates (CRA) is submitting the *First Quarter 2012 Groundwater Monitoring and Sampling Report* for the site referenced above (Figures 1 and 2). Groundwater monitoring and sampling was performed by TRC Solutions (TRC) of Irvine, California. TRC's February 7, 2012 *Groundwater Monitoring Data* is presented as Attachment A. Current groundwater monitoring and sampling data are presented in Table 1. Laboratory analyses were performed by BC Laboratories, Inc. of Bakersfield, California. BC Laboratories' February 3, 2012 *Report* is included as Attachment B. Historical groundwater monitoring and sampling data are included as Attachment C.

RESULTS OF FIRST QUARTER 2012 EVENT

On January 24, 2012, TRC monitored and sampled the site wells per the established schedule.

Results of the current monitoring event indicate the following:

Groundwater Flow Direction
 Southwest

• Hydraulic Gradient 0.05

• Approximate Depths to Groundwater 11 to 17 feet below grade

Equal Employment Opportunity Employer



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Well MW-A is screened at a deeper interval and was not used in contouring.

Results of the current sampling event are presented below in Table A:

		TABLE A:	GROUNDW.	ATER ANA	LYTICAL DATA		
Well ID	TPHd (μg/L)	TPHg (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (μg/L)	Total Xylenes (μg/L)	MTBE (μg/L)
ESLs	100	100	1	40	30	20	5
MW-A	<40	<50	<0.50	< 0.50	<0.50	<1.0	< 0.50
MW-4	<40	<50	< 0.50	< 0.50	<0.50	<1.0	1.5
MW-5	46,000	71,000	<25	1,100	1,400	10,000	<25
MW-6	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50
MW-7	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50
MW-8	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50
MW-9	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	1.3
TPHA To	tal netroleu	m hydrocarh	one as diasal		·	·	

Total petroleum hydrocarbons as diesel TPHd

TPHg Total petroleum hydrocarbons as gasoline

MTBE Methyl tertiary butyl ether

μg/L Micrograms per Liter

ESLs Environmental Screening Levels (Table F-1a) for groundwater that is a current or potential drinking water resource; Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater; California Regional Water Quality Control Board - San Francisco Bay Region; Interim Final November, 2007; revised May, 2008.

< x.x Not detected at or above laboratory detection limit

BOLD Concentration exceeds applicable ESL

CONCLUSIONS AND RECOMMENDATIONS

The results of ongoing groundwater monitoring and sampling at the site indicate the following:

- Dissolved petroleum hydrocarbons are limited to the immediate area around well MW-5.
- No petroleum hydrocarbons have been detected in well MW-4 since December 2010 except for MTBE below the ESL.
- With the exception of TPHd and MTBE, no petroleum hydrocarbons have been detected in wells MW-6 through MW-9 since the wells were first sampled in December 2010.
- TPHd has not been detected in any of the site wells above the ESL since February 2002 except in MW-5.



March 1, 2012 Reference No. 060723

- Outside of MW-5, MTBE concentrations have historically been below the ESL where detected; the only exception was the initial sampling of MW-6.
- No dissolved hydrocarbons have been reported in MW-A (screened deeper) above ESLs since February 2002, and current analytical data indicates no hydrocarbons present.

CRA recommends the following:

- Continued quarterly groundwater monitoring and sampling of well MW-5 to further establish concentration trends over time.
- Reducing the sampling frequency of the remaining site wells to semi-annual in the first and third quarters.

ANTICIPATED FUTURE ACTIVITIES

Groundwater Monitoring

TRC will monitor and sample site wells per the established schedule. CRA will submit a groundwater monitoring and sampling report.



March 1, 2012 Reference No. 060723

Please contact Laura Heberle at 916-889-8918 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Jim Schneider, PG 7914

IH/cw/5

Encl.

Figure 1 Vicinity Map

Figure 2 Groundwater Elevation and Hydrocarbon Concentration Map

Table 1 Groundwater Monitoring and Sampling Data

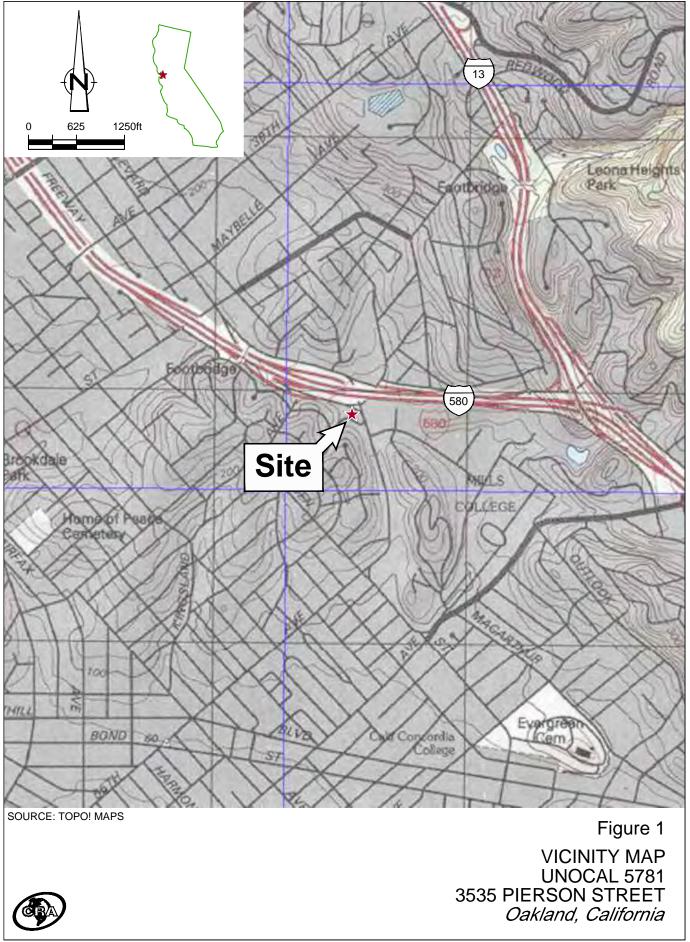
Attachment A Monitoring Data Package
Attachment B Laboratory Analytical Report

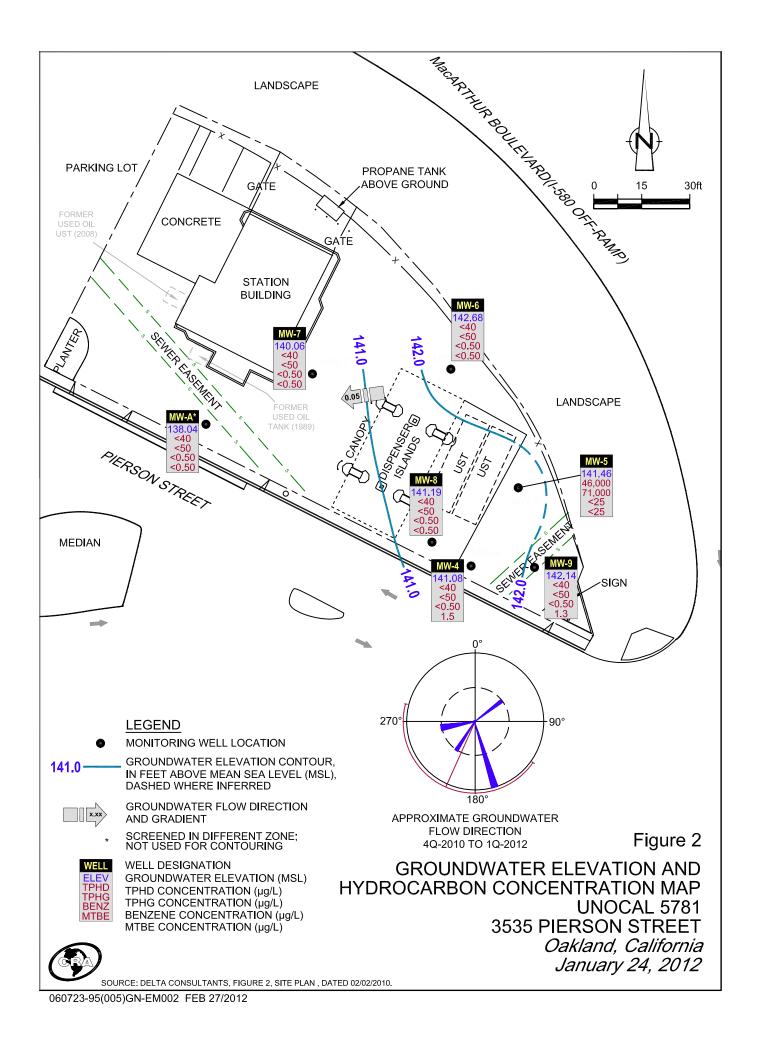
Attachment C Historical Groundwater Monitoring and Sampling Data

cc: Ms. Roya Kambin, Union Oil Company of California (electronic copy)

United Brothers Enterprise, Inc., Property Owner

FIGURES





TABLE

TABLE 1 Page 1 of 3

GROUNDWATER MONITORING AND SAMPLING DATA 76 SERVICE STATION #5781 3535 PIERSON ST. OAKLAND, CALIFORNIA

					IIVDBO	CARRONE						DD IV 4	ADV IV	266						GAS	CENTER	AL CHES	MICTRY
					HYDKO	CARBONS						PRIML	ARY VO	JCS						GAS	GENEK	AL CHEN	ЛІЅІКҮ
Location	Date	TOC	DTW	GWE	TPH - Diesel	TPH - Gasoline	В	T	E	X	MTBE by SW8260	TBA	ETBE	DIPE	TAME	ЕДВ	1,2-DCA	Ethanol	Methanol	Метнапе	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	μg/L	µg∕L	µg/L	µg∕L	µg∕L	µg∕L	μ <i>g/</i> L	µg∕L	μ <i>g/</i> L	μ <i>g/</i> L	µg∕L	μg/L	µg∕L	µg∕L	µg/L	mg/L	µg/L	mg/L	mg/L
MW-A	06/07/2011	154.79	13.92	140.87	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	0.57	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	-	-	-	-
MW-A	08/18/2011	154.79	18.83	135.96	<40	<50	< 0.50	<0.50	<0.50	<1.0	0.61	<10	< 0.50	< 0.50	<0.50	< 0.50	<0.50	<250	<100	<0.0010	140	11	69
MW-A	10/04/2011	154.79	14.67	140.12	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	0.72	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	< 0.0010	<100	13	69
MW-A	01/24/2012	154.79	16.75	138.04	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-
MW-4	06/07/2011	153.48	10.94	142.54	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	1.6	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<250	<100	-	-	-	-
MW-4	08/18/2011	153.48	12.07	141.41	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	4.0	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<250	<100	0.040	<100	4.6	52
MW-4	10/04/2011	153.48	12.70	140.78	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	3.8	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<250	<100	0.030	100	4.3	50
MW-4	01/24/2012	153.48	12.40	141.08	<40	<50	<0.50	<0.50	<0.50	<1.0	1.5	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-
MW-5	06/07/2011	153.66	11.45	142.21	3,700	40,000	32	2,300	1,500	16,000	24	150	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	330	<100	-	-	-	-
MW-5	08/18/2011	153.66	12.30	141.36	5,400	30,000	29	1,000	980	7,200	56	44	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	9.7	15,000	< 0.44	<1.0
MW-5	10/04/2011	153.66	13.72	139.94	20,000	42,000	21	2,400	2,400	20,000	42	<250	<12	<12	<12	<12	<12	<6,200	<100	1.9	17,000	< 0.44	1.3
MW-5	01/24/2012	153.66	12.20	141.46	46,000	71,000	<25	1,100	1,400	10,000	<25	<500	<25	<25	<25	<25	<25	<12,000	-	-	-	-	-
MW-6	06/07/2011	154.62	11.33	143.29	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	4.3	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	-	-	-	-
MW-6	08/18/2011	154.62	13.00	141.62	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	2.4	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	0.0027	<200	18	66
MW-6	10/04/2011	154.62	14.02	140.60	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	3.1	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	< 0.0010	100	24	78
MW-6	01/24/2012	154.62	11.94	142.68	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-
MW-7	06/07/2011	155.38	12.59	142.79	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<250	<100	-	-	-	-
MW-7	08/18/2011	155.38	14.37	141.01	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<10	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<250	<100	0.0012	<500	3.8	100
MW-7	10/04/2011	155.38	15.22	140.16	<40	< 50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<250	<100	< 0.0010	< 500	4.2	100

CRA 060723 (5)

GROUNDWATER MONITORING AND SAMPLING DATA 76 SERVICE STATION #5781 3535 PIERSON ST. OAKLAND, CALIFORNIA

					HYDROC	CARBONS						PRIMA	ARY VO	OCS						GAS	GENER	AL CHEN	MISTRY
Location	Date	тос	DTW	GWE	TPH - Diesel	TPH - Gasoline	В	T	E	X	MTBE by SW8260	TBA	ETBE	ЭЫО	TAME	EDB	1,2-DCA	Ethanol	Methanol	Methane	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	µg/L	µg/L	μg/L	µg∕L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	µg/L	mg/L	μg/L	mg/L	mg/L
MW-7	01/24/2012	155.38	15.32	140.06	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-
MW-8	06/07/2011	153.71	11.54	142.17	71	<50	<0.50	<0.50	<0.50	<1.0	3.6	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	<100	-	-	-	-
MW-8	08/18/2011	153.71	12.47	141.24	<40	<50	<0.50	<0.50	< 0.50	<1.0	2.1	<10	< 0.50	<0.50	< 0.50	<0.50	<0.50	<250	<100	<0.0010	140	1.5	65
MW-8	10/04/2011	153.71	12.90	140.81	<40	<50	<0.50	<0.50	<0.50	<1.0	1.5	<10	< 0.50	< 0.50	<0.50	<0.50	<0.50	<250	<100	<0.0010	190	2.8	67
MW-8	01/24/2012	153.71	12.52	141.19	<40	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-
MW-9	06/07/2011	153.37	11.36	142.01	<40	<50	< 0.50	< 0.50	< 0.50	<1.0	1.4	<10	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<250	<100	-	-	-	-
MW-9	08/18/2011	153.37	12.52	140.85	<40	<50	<0.50	< 0.50	< 0.50	<1.0	2.1	<10	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	<250	<100	0.0010	<500	2.7	47
MW-9	10/04/2011	153.37	13.32	140.05	<40	<50	< 0.50	<0.50	< 0.50	<1.0	2.4	<10	< 0.50	< 0.50	<0.50	< 0.50	<0.50	<250	<100	<0.0010	<200	3.2	47
MW-9	01/24/2012	153.37	11.23	142.14	<40	< 50	<0.50	<0.50	<0.50	<1.0	1.3	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<250	-	-	-	-	-

TABLE 1 Page 3 of 3

GROUNDWATER MONITORING AND SAMPLING DATA 76 SERVICE STATION #5781 3535 PIERSON ST. OAKLAND, CALIFORNIA

					HYDROC	CARBONS						PRIMA	ARY VO	OCS						GAS	GENER	AL CHEN	MISTRY
Location	Date	тос	DTW	GWE	TPH - Diesel	TPH - Gasoline	В	T	E	X	MTBE by SW8260	TBA	ETBE	DIPE	TAME	EDB	1,2-DCA	Ethanol	Methanol	Меthапе	Ferrous iron	Nitrate (as N)	Sulfate
	Units	ft	ft	ft-amsl	µg∕L	µg∕L	µg∕L	µg∕L	µg∕L	µg∕L	μg/L	µg∕L	µg∕L	µg/L	µg∕L	µg∕L	µg∕L	μg/L	µg∕L	mg/L	µg∕L	mg/L	mg/L

Abbreviations and Notes:

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater elevation

(ft-amsl) = Feet Above Mean sea level

ft = Feet

 μ g/L = Micrograms per Liter

TPH - Total Petroleum Hydrocarbons

VOCS = Volatile Organic Compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

MTBE = Methyl tert butyl ether

TBA = Tert-Butyl alcohol

DIPE = Diisopropyl ether

ETBE = Tert-Butyl ethyl ether

TAME = Tert-Amyl methyl ether

EDB = 1,2-Dibromoethane (Ethylene dibromide)

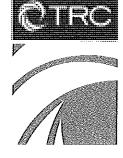
1,2-DCA = 1,2-Dichloroethane

-- = Not available / not applicable

x = Not detected above laboratory method detection limit

ATTACHMENT A

MONITORING DATA PACKAGE



123 Technology Drive West Irvine, CA 92618

949.727.9336 PHONE 949.727.7399 FAX

www.TRCsolutions.com

DATE:

February 7, 2012

TO:

Laura Heberle

CRA

SITE:

Unocal Site 578I

Facility 351640

3535 Pierson Street, Oakland, CA

RE:

Transmittal of Groundwater Monitoring Data

Dear Ms. Heberle,

Please find attached the field data sheets, chain of custody (COC) forms, and technical services request (TSR) form for the monitoring event that was completed on January 24, 2012. Field measurements and collection of samples submitted to the laboratory were completed in general accordance with our usual groundwater monitoring protocol which is also attached for your reference.

Please call me at 949-341-7440 if you have questions.

Sincerely,

Anju Farfan

Groundwater Program Operations Manager

GENERAL FIELD PROCEDURES

Groundwater Gauging and Sampling Assignments

For each site, TRC technicians are provided with a Technical Service Request (TSR) that specifies activities required to complete the groundwater gauging and sampling assignment for the site. TSRs are based on client directives, instructions from the primary environmental consultant for the site, regulatory requirements, and TRC's previous experience with the site.

Fluid Level Measurements (Gauging)

Initial site activities include determination of well locations based on a site map provided with the TSR. Well boxes are opened and caps are removed. Indications of well or well box damage or of pressure buildup in the well are noted.

Fluid levels in each well are measured using a coated cloth tape equipped with an electronic interface probe, which distinguishes between liquid phase hydrocarbon (LPH) and water. The depth to LPH (if it is present), to water, and to the bottom of the well are measured from the top of the well casing (surveyors mark or notch if present) to the nearest 0.01 foot. Unless otherwise instructed, a well with less than 0.67 foot between the measured top of water and the measured bottom of the well casing is considered dry, and is not sampled. If the well contains 0.67 foot or more of water, an attempt is made to bail and/or sample as specified on the TSR.

Unless otherwise instructed, a well that is found to contain a measureable amount of LPH (0.01 foot) is not purged or sampled. Instead, one casing volume of fluid is bailed from the well and the well is re-sealed.

Purging and Groundwater Parameter Measurement

TSR instructions may specify that a well not be purged (no-purge sampling), be purged using low-flow methods, or be purged using conventional pump and/or bail methods. Conventional purging generally consists of pumping or bailing until a minimum of three casing volumes of water have been removed or until the well has been pumped dry. Pumping is generally accomplished using submersible electric or pneumatic diaphragm pumps. The pump intake is initially set at about 5 feet below the level of water in the casing, and is lowered as needed to compensate for falling water level. Pump depths are recorded in Field Notes.

During conventional purging, three groundwater parameters (temperature, pH, and conductivity) are measured after removal of each casing volume. Stabilization of these parameters, to within 10 percent, confirm that sufficient purging has been completed. In some cases, the TSR indicates that other parameters are also to be measured during purging. TRC commonly measures dissolved oxygen (DO), oxidation-reduction potential (ORP), and/or turbidity. Instruments used for groundwater parameter measurements are calibrated daily according to manufacturer's instructions.

Low-flow purging utilizes a bladder or peristaltic pump to remove water from the well at a low rate. Groundwater parameters specified by the TSR are measured continuously, using a flow cell, until they become stable in general accordance with EPA guidelines.

Groundwater Sample Collection

After wells are purged, or not purged, according to TSR instructions, samples are collected for laboratory analysis. For wells that have been purged using conventional pump or bail methods, sampling is conducted after the well has recovered to 80 percent of its original volume or after two hours if the well does not recover to at least 80 percent. If there is insufficient recharge of water in the well after two hours, the well is not sampled.

GENERAL FIELD PROCEDURES

Samples are collected by lowering a new, disposable polyethylene bottom-fill bailer to just below the water level in the well. The bailer is retrieved and the water sample is carefully transferred to containers specified for the laboratory analytical methods indicated by the TSR. Particular care is given to containers for volatile organic analysis (VOAs) which require filling to zero headspace and fitting with Teflon-sealed caps.

Sample containers are labeled with project number (or site number), well designation, sample date, sample time, and the sampler's initials, and placed in an insulated chest with ice. Samples remain chilled prior to and during transport to a state-certified laboratory for analysis. Sample container descriptions and requested analyses are entered onto a chain-of-custody form in order to provide instructions to the laboratory. The chain-of-custody form accompanies the samples during transportation to provide a continuous record of possession from the field to the laboratory. If a freight or overnight carrier transports the samples, the carrier is noted on the form.

For wells that have been purged using low-flow methods, sample containers are filled from the effluent stream of the bladder or peristaltic pump. In some cases, if so specified by the TSR, samples are taken from the sample ports of actively pumping remediation wells.

Sequence of Gauging, Purging and Sampling

The sequence in which monitoring activities are conducted is specified on the TSR. In general, wells are gauged beginning with the least affected well and ending with the well that has the highest concentration based on previous analytic results. After all gauging for the site is completed, wells are purged and/or sampled from the least-affected to the most-affected well. If wells must be gauged or sampled out of order, alternate interface probes and/or pumps are utilized and are noted in field documentation.

Decontamination

In order to reduce the possibility of cross contamination between wells, strict isolation and decontamination procedures are observed. Portable pumps are not used in wells with LPH. Technicians wear nitrile gloves during all gauging, purging, and sampling activities. Gloves are changed between wells and more often if warranted. Any equipment that could come in contact with fluids are either dedicated a particular well, decontaminated prior to each use, or discarded after a single use. Decontamination consists of washing in a solution of Liquinox and water and rinsing twice. The final rinse is in deionized water.

Purge Water Disposal

Purge water is generally collected in labeled drums for disposal as non-hazardous waste. Drums may be left on site for disposal by others, or transported to a collection location at a TRC field office, in either Fullerton, California or Concord, California, for eventual transfer to a licensed treatment or recycling facility. Alternatively, purge water may be collected directly from the site by a licensed vacuum truck company, or may be treated on site by an active remediation system, if so directed.

Exceptions

Additional tasks or non-standard procedures, if any, that may be requested or required for a particular site, are documented in field notes on the following pages.

FIELD MONITORING DATA SHEET

Technician: Bailio	Job #/Task #: <u>189791,0035,</u> 1640	Date: 1-24-12
Site #_ 5781	Project Manager A.F.	Page of

Well#	тос	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
11W-7	ν			15.32		V======	0936	2"
MW-A	V			16.75		100	0947	Z" Pressure *
MW-8	v	1	,	12.52			1004	2"
11W-9	V	0637			_	(************************************	1016	2"
MW-6	V	0643				***************************************	1030	Z "
MW-4	V	0652					1050	4"
MW-5	V	ì		12.20			1106	4"
							¥	Allow well time to
								stabilize.
			4					
							-	
								And Andrews Control of the Control o
FIELD DATA	COMPLE	TE	QA/QC		coc	W	ELL BOX CO	ONDITION SHEETS
MANIFEST		DRUM IN	VENTOR)	/	TRAFFIC C	CONTROL	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	



, Technician:	Baulis
Site: <u>5781</u> Project No.: <u>18</u>	7-24-12 39791,0035,1640 Date: 1-12-184
Well No. MW-7	Purge Method: 45
Depth to Water (feet): 15.32	Depth to Product (feet):
Total Depth (feet) 19.70	LPH & Water Recovered (gallons):
Water Column (feet): 4.38	Casing Diameter (Inches): Z
80% Recharge Denth/feet): 16,19	1 Well Volume (gallons): /

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
Pre-l	urge								
0720				1097	19.0	7.23			
*			ì	1121	20.1	C.81			
	0725		3	1147	19.9	6,60			
Stat	c at Time Sa	ampled	Tota	al Gallons Pur	ged		Sample	Time	•
/	7.90		3			Ō	936		
Comments	fre Pur	al zample	0718	Dry at	36K. 1)idvo	+ 1ece	verin	2415.
	· V C 1 C/V .	Jo Sumpli	<u>. , , , , , , , , , , , , , , , , , , ,</u>	17.7 61.1					

Well No. MW-A	Purge Method: 525
Depth to Water (feet): 16.75	Depth to Product (feet):
Total Depth (feet) 2/1,94	LPH & Water Recovered (gallons):
Water Column (feet): 28, 19	Casing Diameter (Inches):
80% Recharge Depth(feet): 22.38	1 Well Volume (gallons):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
Pre-F	urge								
0730	- "		5	1420	17.0	6.79			
<u> </u>			10.	1492	18.7	6.75			
	0.140		15	1530	18.9	6.70		,	
Stati	c at Time Sa	l ampled	Ţot	I al Gallons Pur	ged	<u> </u>	Sample	Time	<u>l</u>
,,,	26.		15	<u>, ,</u>		0	947		
Comments		id wire	cover 2	hrs.					



Technician: 190000 Date: 1-24-12

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
Pre-	Purge								
0745			Z	802.6	17.6	6.94			
			4	783.4	18-1	6.88			
	0755		Ь	779:1	18.5	6.83			
					,				
Stat	lic at Time S	ampled	Tota	al Gallons Pur	ged		Sample	Time	
		42	6			10	04	,	
Comments	3: Dry	+ Ce 6-15.	,						

Well No.
AU - 9

Depth to Water (feet):
11. 23

Depth to Product (feet):
Depth to Product (feet):

LPH & Water Recovered (gallons):
Casing Diameter (Inches):

80% Recharge Depth(feet):
12.92

1 Well Volume (gallons):
2

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,(C)	рН	D.O. (mg/L)	ORP	Turbidity
Pre-	Purge	a / 2 / / 2 / / 2							
0805			Z	353.6	17.7	6.91			
000	0809		4	815.3	18.6	6.60			
	0 - 4		6	, Property.		_			
·									
Stat	ic at Time S	ampled	Tota	al Gallons Pur	ged		Sample	Time	
	. 14.1	(41)	4				1016	,	
Comments	: l've pur	ge Sample	0803.	Drya	7 46-15.	Did	not ve	lover's	zhrs.



Technician: Project No.: 189791, 0035.1640 Date: 1-24-12 Well No. MW-6 Purge Method:_____ Depth to Water (feet):____ Depth to Product (feet):____ LPH & Water Recovered (gallons): Total Depth (feet)_ Casing Diameter (Inches): _____ Water Column (feet): 1 Well Volume (gallons):___ 80% Recharge Depth(feet): Depth to Volume Conductivity Temperature D.O. Time Time рΗ ORP **Turbidity** Purged Water (F,63 (mg/L) (µS/cm) Start Stop (feet) (gallons) Pre-Purge 0817 2 0822 **Total Gallons Purged** Sample Time Static at Time Sampled 1030 16.32 Comments: ecover Well No. Purge Method:_ Depth to Product (feet):_ Depth to Water (feet): LPH & Water Recovered (gallons): Total Depth (feet)_ Casing Diameter (Inches):_____ Water Column (feet):_ 1 Well Volume (gallons):_ 80% Recharge Depth(feet):

Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP.	Turbidity
Pre-F	urge				1				
0.840			9	731.0	17.7	6.89			
<u>. (*</u>	0850		18	(*** *********************************		-magazin			
	V (/ / V		27			Tarabel /			
Stat	ic at Time S	ampled	Jota	al Gallons Pur	ged		Sample	Time	
		.46	15				1050)	
Comments	: Pre jurg		0835 in 2	Dry at	15 6-15.				



		Тес	hnician: _	Dan	lis	_			
Site: 5 7	181	Proj	ect No.: <u>/ 8</u>	9791.	lis 2035, 16	10	Date:_/	1-24	1-12
Well No	Mu	1-5		Purge Metho	d:	54b			
Depth to W	ater (feet):	12.20	2	Depth to Prod	duct (feet):	<i>p</i>		_	
Total Depth	(feet)	19.92		LPH & Water	Recovered (g	allons):			
Water Colu	mn (feet):	7.7	2	Casing Diam	eter (Inches):_	4_			
		eet): <u>13, 7 (</u>		1 Well Volum	ie (gallons):	6			
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
	urge		7	1.1.1	41447	~7 .*2			
0856			6	441.5	17.5	6.60			
	0908		18	476.9	19.6	6.45			
	() 100			7., 4	7.7				
					,				
Stati	c at Time S		Tota	al Gallons Pur	ged	11	Sample O (o		
Comments	160	35 150 Sampl	18 10 085	5	L				
Oommonio	ine po) www.	() (00)		·.				
	***-								
Well No			· <u>-</u> -	Purge Metho	d:				
				Depth to Prod	duct (feet):			_	
Total Depth	(feet)		\	LPH & Water	Recovered (g	allons):			
-			\	Casing Diam	eter (Inches):_				
80% Recha	rge Depth(fe	et):		√ Well Volum	ie (gallons):				
A	€ ∀								
Time Start	Time Stop	Depth to Water (feet)	Volume Purged (gallons)	Conductivity (µS/om)	Temperature (F,C)	рН	D.O. (mg/L)	ORP	Turbidity
Pre-F	urge				ì				
					<u></u>				
Stati	c at Time Sa	ampled	Tota	al Gallons Pur	ged \	<u></u>	Sample	ıme	
Comments						<u>/</u>			



WELL BOX CONDITION REPORT

SITE NO ADDRES DATE	. <u> </u>	48 35	<u>1</u> 35	7	er:	s in	_5	,												BCCC450 04 BC (P-)
DATE		24	- اک	·																PERFOMED BY: Bailing PAGE 1 OF /
Well Name	Current Well Box Size	# of Ears	# of Stripped Ears	# of Broken Ears	# of Broken Bolts	# of Missing Bolts	Seal Damaged	Missing Lid	Broken Lid	Well Box is Exposed	Well Box is Below Grade	Unable to Access	Unable to Locale	Foundation Damaged	Paved Over	Street Well	Saw Cut Needed	System Well	USA Marked Well	Comments
MW F MW B MW G MW G	12"	2																		
UW F	8"	2																,		
unis	12"	2																		
Mw9	/Z"	2							****											
MW6	jz"	2												X						
MW 5	12"	2																		
mus	12"										<u> </u>									·
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	_																			
																			!	
i	1	1)		1	1	I	1			ı	l	1	}	l		1			



CHAIN OF CUSTODY FORM

coc / of /

Union Oil Company of California ■ 6101 Bollinger Canyon Road ■ San Ramon, CA 94583

Union Oil Site ID:	751			Union Oil Consultant:	CAM						AN.	ALYSI	ES RE	QUIR	.ED			•
Site Global ID: 700	00/3	19-11677 19-12-117		Consultant Contact: <	iceast Anchorald]										Turnarou	nd Jime (1	ΓΑΤ):
Site Address:		1.45 1977	42T	Consultant Phone No.:	Y9 775 7 E				79						i	Standard [
		hlan c	<u>/ </u>	Sampling Company: TRC												48 Hours 🗆	72 H	ours 🗆
Union Oil PM: 2017	4 50	Triber		Sampled By (PRINT):			Ì	_	2		9				ı	Specia	l Instructio	ns
Union Oil PM Phone No.:	J 3	1137 - 2	70	1	360 ° 16. Q		\	260	3	S								
Charge Code: NWRTB- 0	5	<u>∑</u> -0- LAB		Sampler Signature:		015	S	EPA 8	500	Ih OXY								
This is a LEGAL document.	ĄLĻL fields r	πust be filled out	CORRECTLY and	Project Mana 4100 Atlas Court,	oratories, Inc. ger: Molly Meyers Bakersfield, CA 93308 . 661-327-4911	Diesel by EPA 8015	G by GC/MS	BTEX/MTBE/OXYS by EPA 8260B	Ethanol by EPA 8260B	EPA 8260B Full List with OXYS								
	SAMPLE	E ID	.,,,,,			1 .	١,	N X	1 <u>10</u>	826(,			
Field Point Name	Matrix	WTŒ	Date (yymmdd)	Sample Time	# of Containers	TPH	TPH	ВТЕ	Etha	EPA						Notes	/ Commer	nts
1/1/25-4	W-S-A		1/24/12	0936	ý	$ \times $	$ \times $	>	X									
191W- A	W-S-A		<u> </u>	0947	:			:										
1/1/40-3	W-S-A		2	7004		V androne of Fermi	7	The section of the section of										
MW-9	W-S-A		1	1016		The state of the s	- Tribana	Total and The Co.										
1410-6	W-S-A	·		1030		a de Casago		1										
MW-4	W-S-A			1050		Perform announced	-	Windowski William	1									
12100-5	W-S-A			1/06		\forall	V	\mathbb{V}	V									
Andreadon	W-S-A						<u> </u>		<u> </u>									
	W-S-A				P. W.													
	W-S-A					ļ		ļ				<u></u>			<u></u>			
	W-S-A					<u> </u>	ļ											
	W-S-A							<u> </u>				<u>. </u>						
	прапу	Date / Time:		Relinquished By Co	ompany Date / Time :				Relin	iquished I	Зу	Ċ	ompa	ny	D	ate / Time:		
Received By Com	npany	Date / Time:	1400	Received By Co	ompany Date / Time :				Rece	eived By		(Compa	any	D	ate / Time:		

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

· 19-Dec-11

Site ID: Address	5781 3535 Pierson	Street		Project Client:	No.:	189791.0035.1640 / 00 Roya Kambin)TA01
City:	Oakland			Contact	#:	925-790-6270	
Cross Street	: Redding St.			PM: PM Con	tact #:	Michael McDonald Cl 949-648-5235	RA
Total number Depth to Wat	er (ft.):	7 14	Min. Well Dia Max. Well Dia Max. Well De	meter (in.):	2 2 45	# of Techs, # of Hrs: Travel Time (hrs):	1, 5
ACTIVITIES	: Frequ	uency				otes	
Gauging: Purge/Samplin	☑ Quarte g: ☑ Quarte		: : :				
No Purge/Sam		y			···-·		
No Fulge/Saili	bie 🗀		:	*.			
RELATED A	ACTIVITIES	Notes	i				
Drums:	V						
Other Activities	: D		•				
Traffic Control:							
PERMIT IN	ORMATION:						
NOTIFICAT 76 Station: 510-4							· 4
SITE INFOR	MATION:						
MW-4, MW-5, MV Submit pre-purge	V-6, MW-7 & MW samples if monito	-9 recover pirng doesn	slow. Take pre-purg 't recover with enou	ge samples and the ught water to collec	en follow s it the requ	standard TRC purge and sam vired bottles after two hours.	ple procedures.
	,				•		·
				• • •			

Date Printed: 12/19/2011

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

19-Dec-11

Site ID:

5781

3535 Pierson Street

Address City:

Oakland

Cross Street: Redding St.

Project No.:

189791.0035.1640 / 00TA01

Client:

Roya Kambin

Contact #:

925-790-6270

PM:

Michael McDonald CRA

PM Contact #: 949-648-5235

LAB INFORMATION:

Global ID: T0600101467

Lab WO: 351640

Lab Used: BC Labs

Lab Notes: Lab Analyses:

TPH-D by 8015M w/silica gel clean-up [Containers: two 1L ambers unpreserved]
TPH-G by 8015 [Containers: 3 voas w/HCl]
BTEX/MTBE/OXYS by 8260B, EDB/EDC by 8260B, Ethanol by 8260B [Containers: 3 voas w/HCl]

Date Printed: 12/19/2011

2 of 2

TRC SOLUTIONS

TECHNICAL SERVICES REQUEST FORM

19-Dec-11

Site ID.:

5781 3535 Pierson Street Address

City:

Oakland

Cross Street Redding St.

		1		Gau	ıging			San	npling			Field Measurem	nents	
Well IDs	Benz.	MTBE	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Pre-Purge	Post-Purge	Type	Comments
MW-7	0	0	V	V	~	y	V	V	✓	V				2" casing
MW-A	0	0.72	V	V	V	✓	V	V	V	V				2" casing
MW-8	0	1.5	✓	V	V	V	V	V	✓	V				2" casing
MW-9	0	2.4	✓	V	~	V	V	V	✓	~				2" casing
MW-6	0	3.1	V	V	V	V	V	✓	V	~				2" casing
MW-4	0	3.8	\mathbf{V}	✓	V	V	V	V	✓	V				4" casing
MW-5	21	42	V	✓	V	V	✓	V	V	~				4" casing

ATTACHMENT B

LABORATORY ANALYTICAL REPORT



Date of Report: 02/03/2012

Laura Heberle

Conestoga Rovers and Associates 10969 Trade Center Drive Suite 107 Rancho Cordova, CA 95670

5781 Project:

1201368 BC Work Order: B115790 Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 1/24/2012. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers

molly meyers

Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



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_	Total Petroleum Hydrocarbons (Silica Gel Treated)	28
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	Laboratory Control Sample	
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41	<i>~</i>				OF CUSTODY FORM									
# 12-0136	20		Union Oil Co	mpany of California 🛭 610	1 Bollinger Canyon Road	a Sar	Ran	non,	CA 9	4583			CC	OC of/
Union Oil Site ID:	<u> 781</u>		· · · · · · · · · · · · · · · · · · ·		CRA				. 1		ANALYS	ES REQUI	RED	
Site Global ID: TOG	0010	1467	- d	Consultant Contact: Mic	chael NcNonald	0	ļ		1/1/2	$\land \land \land$				Turnaround Time (TAT):
Site Address: 3535	rier	50h 571 Klamo	eer	Consultant Phone No.: 57		10 3			NYE!					
Union Oil PM: Roc		12 marc	¥	Sampling Company: TRC Sampled By (PRINT)	**************************************	10/0			7:5	1			1 -	
Union Oil PM Phone No.:	925 -	ampin 790-62	70	Sainpieu by (PKINT)	asiho	5:1/1:5		80	T					Special Instructions
Charge Code: NWRTB- 0 3				Sampler Signature:	NP		15	EPA 8260B	1903	Full List with OXYS				
				1	atories, Inc.	1 8	Ø.	Sby	88	st wil			li	
This is a LEGAL document. COMPLETELY.	ALL fields n	must be filled ou	t CORRECTLY and	4100 Atlas Court, B	er: Molly Meyers akersfield, CA 93308 861-327-4911	TPH - Diesel by EPA 8015 40	TPH - G by Sering 80	BTEX/MTBE/OXYS by	y EPA 8260B	B Full Li				
	SAMPLE	ΞID				ij	5	X/MT	뎔	8260				
Field Point Name	Matrix	DTW	Date (yymmdd)	Sample Time	# of Containers	TPH	TPH	вте	Ethanol by	EPA 8260B				Notes / Comments
MW-7	W-S-A	-1	1/24/12	0936	8	X	\boxtimes	\sum	X					
MW-A	W-S-A	-2	1 1	0947	1	П	П	1	П					
MW-8	W-S-A	-3		1004		П		T	П					
MW-9	W-S-A	-4		1016		Ħ			\top					
MW-6	W-S-A	-5		1030		\sqcap			\vdash					
MW-4	W-S-A	- φ		1050				+	Н,					THE STATE OF THE S
MW-5	W-S-A	-7	1/	1106		1	4	₩	\\/				1-1-	
	W-S-A			7700	- 41.54 	V	V		V				1	
			F-			\vdash							++	
	W-S-A			CHK BY DISTE	IBUTION.	\vdash							++	
	W-S-A			MANAZEY									+	
	W-S-A			ALL SU	BOUT -				-		_		1	
Relinquished/By Con	W-S-A	Date / Time:		Relinquished By Com	pany Date / Time :				Dal'-	quished By			ᆚ	
	10 n	مال مال	_					_	./	r C		ompany		
Paralle Du T	<u> </u>	1/27/14	<u> </u>		clabs 1-24-12	/ 9	100	,	<u> </u>	<u> </u>		7B		Turneround Time (TAT): Standard B 24 Hours □ 48 Hours □ 72 Hours □ Special Instructions
How Boyen B	CAADS	Pate / Time:	2 1400	I	pany Date/Time:	2	19	O()		elved By	, (Company BNL		
0 - 0		T						-		V			<u></u>	





Chain of Custody and Cooler Receipt Form for 1201368 Page 2 of 2

BC LABORATORIES INC.	. 0	1	SAMPLE	RECEIP	T FORM	Rev	/. No. 12	06/24/08	Page \	Of _	
Submission #: 12-013	(4 X	<u> </u>							********		
SHIPPING INF Federal Express ☐ UPS ☐ BC Lab Field Service ಈ Oth	Hand	Deliv			J .	ce Chest Box		NG CONT None Other	e 🖸	ify)	
Refrigerant: Ice,⊠⊃ Blue Ic	e□ N	one (□ Oth	er □ (Comment	s:			**		
Custody Seals Ice Chest □ Intact? Yes □ No □	F	taine:	rs 🗋	None 🗹	Comme	nts:					
All samples received? Yes ♥ No □	All sar	nples	containers	intact? Ya	es#2 No⊡]	Descripti	on(s) mate	h COC? Y	esk⊈ No	
COC Received PYES □ NO	Emissiv	ity: [),9 <u>2</u> c		<u> </u>	hermomet	er ID: <u>\</u>		Date/Time		
SAMPLE CONTAINERS							NUMBERS				
		1	2	3	4	5	6	7	В	9	10
OT GENERAL MINERAL/ GENERAL PHYSI	CAL										-
PT PE UNPRESERVED				_							
OT INORGANIC CHEMICAL METALS											-
PT INORGANIC CHEMICAL METALS	-										
PT CYANIDE				_							-
PT NITROGEN FORMS											
PT TOTAL SULFIDE											
20z. NITRATE / NITRITE	-										
PT TOTAL ORGANIC CARBON											-
PT TOX											
PT CHEMICAL OXYGEN DEMAND PtA PHENOLICS										-	_
40ml VOA VLAL TRAVEL BLANK											
40ml VOA VIAL	A	ول	A 10,	A 101	A 16	A 16	A 16,	A 161	()	(,
QT EPA 413.1, 413.2, 418.1			i								
PT ODOR											
RADIOLOGICAL											
BACTERIOLOGICAL											
40 ml VOA VIAL- 504											
OT EPA 508/608/8080					İ					-	
QT EPA 515,1/8150											
QT EPA 525	Ì]
QT EPA 525 TRAVEL BLANK			!								
100ml EPA 547											1
100ml EPA 531.1											1
QT EPA 548				_							
QT EPA 549							" "				
QT EPA 632							<u> </u>				T
QT EPA 8015M							<u> </u>				
QT AMBER	В	<u></u>	B,C	(5 C.	6,c	13 C	B,C	B C			1
8 OZ JAR		·		 ''/, ''	 _,		1,-	 * / · ~ ·	 	_	1
32 OZ. JAR							 		<u> </u>		†
SOIL SLEEVE				†	 						
PCB VIAL					 	 	-		 		-
PLASTIC BAG			-							-	
FERROUS IRON										· ·	
ENCORE								-	· · · ·		
			l	<u> </u>		<u> </u>	.L		<u> </u>		
Comments:				me: <u>1-25</u>							

Reported: 02/03/2012 10:48

Project: 5781

Project Number: 351640

Project Manager: Laura Heberle

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1201368-01 COC Number: -

Project Number: 5781 Sampling Location: ---

Sampling Point: MW-7-W-120124

TRCI

Sampled By:

Receive Date: 01/24/2012 21:45 **Sampling Date:** 01/24/2012 09:36

Sample Depth: ---Lab Matrix: Water

Sample Type: Water
Delivery Work Order:

Global ID: T0600101467 Location ID (FieldPoint): MW-7

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1201368-02 COC Number: ---

Project Number: 5781 Sampling Location: ---

Sampling Point: MW-A-W-120124

Sampled By: TRCI

Receive Date: 01/24/2012 21:45 Sampling Date: 01/24/2012 09:47

Sample Depth: --Lab Matrix: Water
Sample Type: Water
Delivery Work Order:

Global ID: T0600101467 Location ID (FieldPoint): MW-A

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1201368-03 COC Number: ---

Project Number: 5781 Sampling Location: ---

Sampling Point: MW-8-W-120124

Sampled By: TRCI

Receive Date: 01/24/2012 21:45 **Sampling Date:** 01/24/2012 10:04

Sample Depth: --Lab Matrix: Water
Sample Type: Water
Delivery Work Order:
Global ID: T0600101467

Location ID (FieldPoint): MW-8

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

Reported: 02/03/2012 10:48

Project: 5781 Project Number: 351640 Project Manager: Laura Heberle

Laboratory / Client Sample Cross Reference

Laboratory **Client Sample Information**

1201368-04 COC Number:

Project Number: 5781 Sampling Location:

Sampling Point: MW-9-W-120124

Sampled By:

TRCI

01/24/2012 21:45 Receive Date: Sampling Date: 01/24/2012 10:16

Sample Depth: Lab Matrix: Water Water Sample Type:

Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-9

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

1201368-05 **COC Number:**

> **Project Number:** 5781 Sampling Location:

Sampling Point: MW-6-W-120124

TRCI Sampled By:

01/24/2012 21:45 Receive Date: 01/24/2012 10:30 Sampling Date:

Sample Depth: Water Lab Matrix: Water Sample Type: Delivery Work Order: Global ID: T0600101467

Matrix: W

Sample QC Type (SACode): CS

Location ID (FieldPoint): MW-6

Cooler ID:

1201368-06 COC Number:

> 5781 **Project Number:** Sampling Location:

MW-4-W-120124 Sampling Point:

TRCI Sampled By:

Receive Date: 01/24/2012 21:45 01/24/2012 10:50 Sampling Date:

Sample Depth: Water Lab Matrix: Water Sample Type: Delivery Work Order: Global ID: T0600101467

Location ID (FieldPoint): MW-4 Matrix: W

Sample QC Type (SACode): CS

Cooler ID:



Reported: 02/03/2012 10:48

Project: 5781

Project Number: 351640

Project Manager: Laura Heberle

Laboratory / Client Sample Cross Reference

Laboratory Client Sample Information

1201368-07 COC Number: --

Project Number: 5781 Sampling Location: ---

Sampling Point: MW-5-W-120124

Sampled By: TRCI

Receive Date: 01/24/2012 21:45 Sampling Date: 01/24/2012 11:06

Sample Depth: --Lab Matrix: Water
Sample Type: Water

Delivery Work Order: Global ID: T0600101467 Location ID (FieldPoint): MW-5

Matrix: W

Sample QC Type (SACode): CS

Cooler ID:

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID:	1201368-01	Client Sampl	e Name:	5781, MW-7-W-120	124, 1/24/2012	9:36:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol		ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Ethanol		ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (S	urrogate)	111	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		98.8	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (S	Surrogate)	99.6	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run				QC
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	01/25/12	01/26/12 05:08	JMC	MS-V12	1	BVA1549

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Conestoga Rovers and Associates 10969 Trade Center Drive Suite 107 Rancho Cordova, CA 95670 **Reported:** 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-01	Client Sampl	e Name:	5781, MW-7-W-120124, 1/24/2012 9:36:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Gasoline Range Organics (C4 - C12)		ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene (FID Surrogate)		87.4	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run				QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8015B	01/26/12	01/30/12 14:59	jjh	GC-V4	1	BVA1707		

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-01	Client Sampl	e Name:	5781, MW-7-W-120124, 1/24/2012 9:36:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surroga	te)	90.2	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1

			Run		QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	0.990	BVB0135	

Reported: 02/03/2012 10:48

Project 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 1201368-02	Client Sampl	e Name:	5781, MW-A-W-120	124, 1/24/2012	9:47:00AM		
Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Benzene	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene	ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Toluene	ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes	ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol	ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether	ND	ug/L	0.50	EPA-8260	ND		1
Ethanol	ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)	99.4	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surrogate)	99.4	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run		QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	01/25/12	01/26/12 04:51	JMC	MS-V12	1	BVA1549	

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Project S781
Project Number: 351640
Project Manager: Laura Heberle

Reported: 02/03/2012 10:48

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-02	Client Sampl	e Name:	5781, MW-A-W-120	124, 1/24/2012	9:47:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
Gasoline Range Organ	nics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND	Quais	1
a,a,a-Trifluorotoluene	(FID Surrogate)	90.2	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 15:22	jjh	GC-V4	1	BVA1707	

Reported: 02/03/2012 10:48

Project 5781
Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-02	Client Sampl	e Name:	5781, MW-A-W-120124, 1/24/2012 9:47:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surroga	te)	93.3	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1

					QC			
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	0.990	BVB0135	



Reported: 02/03/2012 10:48

Project 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 12	201368-03	Client Sampl	e Name:	5781, MW-8-W-120	124, 1/24/2012 1	0:04:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol		ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Ethanol		ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surro	ogate)	107	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		96.7	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surr	ogate)	97.8	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	01/25/12	01/26/12 04:34	JMC	MS-V12	1	BVA1549	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-03	Client Sampl	e Name:	5781, MW-8-W-120	124, 1/24/2012 1	0:04:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organ	nics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene	(FID Surrogate)	83.9	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 15:44	jjh	GC-V4	1	BVA1707	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-03	Client Sampl	e Name:	5781, MW-8-W-120124, 1/24/2012 10:04:00AM					
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1	
Tetracosane (Surroga	te)	78.4	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1	

			Run			QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID		
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	0.950	BVB0135		

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Project 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 12	201368-04	Client Sample	e Name:	5781, MW-9-W-120	124, 1/24/2012 1	0:16:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		1.3	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol		ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Ethanol		ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surro	ogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		98.2	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surr	rogate)	98.3	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run				QC	
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	01/25/12	01/26/12 04:16	JMC	MS-V12	1	BVA1549	

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640

Project Manager: Laura Heberle

Conestoga Rovers and Associates 10969 Trade Center Drive Suite 107 Rancho Cordova, CA 95670

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-04	Client Sampl	e Name:	5781, MW-9-W-120	124, 1/24/2012 1	0:16:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organ	nics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene	(FID Surrogate)	88.8	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run			QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 16:07	jjh	GC-V4	1	BVA1707	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-04	Client Sampl	e Name:	5781, MW-9-W-120	-120124, 1/24/2012 10:16:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1	
Tetracosane (Surroga	te)	86.5	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1	

			Run		QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	0.990	BVB0135

Conestoga Rovers and Associates Reported:

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Rancho Cordova, CA 95670
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

02/03/2012 10:48

BCL Sample ID: 12	201368-05	Client Sampl	e Name:	5781, MW-6-W-120	124, 1/24/2012 1	10:30:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol		ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Ethanol		ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surro	ogate)	105	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		95.8	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surr	ogate)	99.3	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	01/25/12	01/26/12 03:59	JMC	MS-V12	1	BVA1549	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-05	Client Sampl	e Name:	5781, MW-6-W-120	5781, MW-6-W-120124, 1/24/2012 10:30:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #	
Gasoline Range Organ	nics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		1	
a,a,a-Trifluorotoluene	(FID Surrogate)	90.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1	

			Run			QC		
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 16:29	jjh	GC-V4	1	BVA1707	

Reported: 02/03/2012 10:48

Project 5781
Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-05	Client Sampl	e Name:	me: 5781, MW-6-W-120124, 1/24/2012 10:30:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surroga	te)	90.7	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1

			Run			QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	1	BVB0135	

Reported: 02/03/2012 10:48

Project 5781
Project Number: 351640
Project Manager: Laura Heberle

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Volatile Organic Analysis (EPA Method 8260)

BCL Sample ID: 12	01368-06	Client Sampl	e Name:	5781, MW-4-W-120)124, 1/24/2012	10:50:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Benzene		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dibromoethane		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane		ND	ug/L	0.50	EPA-8260	ND		1
Ethylbenzene		ND	ug/L	0.50	EPA-8260	ND		1
Methyl t-butyl ether		1.5	ug/L	0.50	EPA-8260	ND		1
Toluene		ND	ug/L	0.50	EPA-8260	ND		1
Total Xylenes		ND	ug/L	1.0	EPA-8260	ND		1
t-Amyl Methyl ether		ND	ug/L	0.50	EPA-8260	ND		1
t-Butyl alcohol		ND	ug/L	10	EPA-8260	ND		1
Diisopropyl ether		ND	ug/L	0.50	EPA-8260	ND		1
Ethanol		ND	ug/L	250	EPA-8260	ND		1
Ethyl t-butyl ether		ND	ug/L	0.50	EPA-8260	ND		1
1,2-Dichloroethane-d4 (Surro	gate)	99.0	%	76 - 114 (LCL - UCL)	EPA-8260			1
Toluene-d8 (Surrogate)		96.6	%	88 - 110 (LCL - UCL)	EPA-8260			1
4-Bromofluorobenzene (Surro	ogate)	102	%	86 - 115 (LCL - UCL)	EPA-8260			1

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8260	01/25/12	01/26/12 03:41	JMC	MS-V12	1	BVA1549	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-06	Client Sampl	e Name:	5781, MW-4-W-120	124, 1/24/2012 1	0:50:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Organ	nics (C4 - C12)	ND	ug/L	50	EPA-8015B	ND		1
a,a,a-Trifluorotoluene	(FID Surrogate)	84.3	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run					
Run #	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 16:51	jjh	GC-V4	1	BVA1707	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-06	Client Sampl	e Name:	ne: 5781, MW-4-W-120124, 1/24/2012 10:50:00AM				
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Diesel Range Organic	s (C12 - C24)	ND	ug/L	40	EPA-8015B/TPH d	ND		1
Tetracosane (Surroga	te)	71.4	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d			1

			Run		QC			
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	1	BVB0135	

Associates

Conestoga Rovers and Associates 10969 Trade Center Drive Suite 107 Rancho Cordova, CA 95670 **Reported:** 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

1201368-07	Client Sampl	e Name:	5781, MW-5-W-120	124, 1/24/2012 1	1:06:00AM		
	Result	Units	PQL	Method	MB Bias	Lab Quals	Run#
	ND	ug/L	25	EPA-8260	ND	A01	1
	ND	ug/L	25	EPA-8260	ND	A01	1
	ND	ug/L	25	EPA-8260	ND	A01	1
	1400	ug/L	25	EPA-8260	ND	A01	1
	ND	ug/L	25	EPA-8260	ND	A01	1
	1100	ug/L	25	EPA-8260	ND	A01	1
	10000	ug/L	100	EPA-8260	ND	A01	2
	ND	ug/L	25	EPA-8260	ND	A01	1
	ND	ug/L	500	EPA-8260	ND	A01	1
	ND	ug/L	25	EPA-8260	ND	A01	1
	ND	ug/L	12000	EPA-8260	ND	A01	1
	ND	ug/L	25	EPA-8260	ND	A01	1
Surrogate)	105	%	76 - 114 (LCL - UCL)	EPA-8260			1
Surrogate)	106	%	76 - 114 (LCL - UCL)	EPA-8260			2
	97.9	%	88 - 110 (LCL - UCL)	EPA-8260			1
	98.4	%	88 - 110 (LCL - UCL)	EPA-8260			2
(Surrogate)	100	%	86 - 115 (LCL - UCL)	EPA-8260			1
(Surrogate)	105	%	86 - 115 (LCL - UCL)	EPA-8260			2
	Surrogate) Surrogate)	Result ND ND ND 1100 ND ND ND ND ND ND ND	Result Units ND ug/L ND ug/L ND ug/L 1400 ug/L ND ug/L 10000 ug/L ND ug/L ND ug/L ND ug/L ND ug/L ND ug/L Surrogate) 105 % Surrogate) 106 % 97.9 % 98.4 % Surrogate) 100 %	Result Units PQL ND ug/L 25 ND ug/L 25 ND ug/L 25 1400 ug/L 25 ND ug/L 25 1100 ug/L 25 10000 ug/L 100 ND ug/L 25 ND ug/L 500 ND ug/L 25 ND ug/L 25 ND ug/L 25 Surrogate) 105 % 76 - 114 (LCL - UCL) Surrogate) 106 % 76 - 114 (LCL - UCL) 97.9 % 88 - 110 (LCL - UCL) 98.4 % 88 - 110 (LCL - UCL) Surrogate) 100 % 86 - 115 (LCL - UCL)	ND	Result Units PQL Method Bias ND ug/L 25 EPA-8260 ND 1100 ug/L 25 EPA-8260 ND 10000 ug/L 100 EPA-8260 ND ND ug/L 25 EPA-8260 ND ND ug/L 25 EPA-8260 ND ND ug/L 500 EPA-8260 ND ND ug/L 25 EPA-8260 ND ND ug/L 12000 EPA-8260 ND Surrogate) 105 % 76 - 114 (LCL - UCL) EPA-8260 Surrogate) 106 % 76 - 114 (LCL - UCL) EPA-8260 Surrogate) 100 % <td> Result Units PQL Method Bias Quals ND</td>	Result Units PQL Method Bias Quals ND

			Run		QC		
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID
1	EPA-8260	01/25/12	01/26/12 03:24	JMC	MS-V12	50	BVA1549
2	EPA-8260	01/25/12	01/26/12 16:28	JMC	MS-V12	100	BVA1549

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

BCL Sample ID:	1201368-07	Client Sampl	e Name:	5781, MW-5-W-120	124, 1/24/2012 1	1:06:00AM		
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Gasoline Range Orga	nics (C4 - C12)	71000	ug/L	2500	EPA-8015B	ND	A01	1
a,a,a-Trifluorotoluene	(FID Surrogate)	88.1	%	70 - 130 (LCL - UCL)	EPA-8015B			1

			Run					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B	01/26/12	01/30/12 17:14	jjh	GC-V4	50	BVA1707	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

BCL Sample ID:	1201368-07	Client Sampl	e Name:	5781, MW-5-W-120	5781, MW-5-W-120124, 1/24/2012 11:06:00AM							
Constituent		Result	Units	PQL	Method	MB Bias	Lab Quals	Run #				
Diesel Range Organio	cs (C12 - C24)	46000	ug/L	2000	EPA-8015B/TPH d	ND	A01,A52	1				
Tetracosane (Surroga	te)	296	%	28 - 139 (LCL - UCL)	EPA-8015B/TPH d		A01,S09	1				

			Run					
Run#	Method	Prep Date	Date/Time	Analyst	Instrument	Dilution	Batch ID	
1	EPA-8015B/TPHd	01/27/12	02/02/12 00:00	MK1	GC-5	50	BVB0135	

Reported: 02/03/2012 10:48

Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BVA1549						
Benzene	BVA1549-BLK1	ND	ug/L	0.50		
1,2-Dibromoethane	BVA1549-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane	BVA1549-BLK1	ND	ug/L	0.50		
Ethylbenzene	BVA1549-BLK1	ND	ug/L	0.50		
Methyl t-butyl ether	BVA1549-BLK1	ND	ug/L	0.50		
Toluene	BVA1549-BLK1	ND	ug/L	0.50		
Total Xylenes	BVA1549-BLK1	ND	ug/L	1.0		
t-Amyl Methyl ether	BVA1549-BLK1	ND	ug/L	0.50		
t-Butyl alcohol	BVA1549-BLK1	ND	ug/L	10		
Diisopropyl ether	BVA1549-BLK1	ND	ug/L	0.50		
Ethanol	BVA1549-BLK1	ND	ug/L	250		
Ethyl t-butyl ether	BVA1549-BLK1	ND	ug/L	0.50		
1,2-Dichloroethane-d4 (Surrogate)	BVA1549-BLK1	106	%	76 - 114	4 (LCL - UCL)	
Toluene-d8 (Surrogate)	BVA1549-BLK1	98.9	%	88 - 110	0 (LCL - UCL)	
4-Bromofluorobenzene (Surrogate)	BVA1549-BLK1	102	%	86 - 115	5 (LCL - UCL)	

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Laboratory Control Sample

								Control L	imits		
				Spike		Percent		Percent		Lab	
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Quals	
QC Batch ID: BVA1549											
Benzene	BVA1549-BS1	LCS	26.060	25.000	ug/L	104		70 - 130			
Toluene	BVA1549-BS1	LCS	24.690	25.000	ug/L	98.8		70 - 130			
1,2-Dichloroethane-d4 (Surrogate)	BVA1549-BS1	LCS	9.9500	10.000	ug/L	99.5		76 - 114			
Toluene-d8 (Surrogate)	BVA1549-BS1	LCS	9.7800	10.000	ug/L	97.8		88 - 110			
4-Bromofluorobenzene (Surrogate)	BVA1549-BS1	LCS	10.210	10.000	ug/L	102		86 - 115			

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Project: 5781
Project Number: 351640

Project Manager: Laura Heberle

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Volatile Organic Analysis (EPA Method 8260)

Quality Control Report - Precision & Accuracy

	•		•				•		Cont	rol Limits	
Constituent	Туре	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	RPD	Percent Recovery	Lab Quals
QC Batch ID: BVA1549	Use	d client samp	le: N								
Benzene	MS	1201079-21	ND	23.290	25.000	ug/L		93.2		70 - 130	
	MSD	1201079-21	ND	25.790	25.000	ug/L	10.2	103	20	70 - 130	
Toluene	MS	1201079-21	ND	21.980	25.000	ug/L		87.9		70 - 130	
	MSD	1201079-21	ND	24.920	25.000	ug/L	12.5	99.7	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1201079-21	ND	9.8700	10.000	ug/L		98.7		76 - 114	
	MSD	1201079-21	ND	10.020	10.000	ug/L	1.5	100		76 - 114	
Toluene-d8 (Surrogate)	MS	1201079-21	ND	9.8900	10.000	ug/L		98.9		88 - 110	
	MSD	1201079-21	ND	9.8200	10.000	ug/L	0.7	98.2		88 - 110	
4-Bromofluorobenzene (Surrogate)	MS	1201079-21	ND	10.140	10.000	ug/L		101		86 - 115	
	MSD	1201079-21	ND	10.300	10.000	ug/L	1.6	103		86 - 115	

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Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BVA1707						
Gasoline Range Organics (C4 - C12)	BVA1707-BLK1	ND	ug/L	50		
a,a,a-Trifluorotoluene (FID Surrogate)	BVA1707-BLK1	107	%	70 - 130	(LCL - UCL)	

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

							Control Limits				
				Spike		Percent		Percent		Lab	
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Quals	
QC Batch ID: BVA1707											
Gasoline Range Organics (C4 - C12)	BVA1707-BS1	LCS	1103.7	1000.0	ug/L	110		85 - 115			
a,a,a-Trifluorotoluene (FID Surrogate)	BVA1707-BS1	LCS	43.559	40.000	ug/L	109		70 - 130			

Reported: 02/03/2012 10:48

Project: 5781

Project Number: 351640

Project Manager: Laura Heberle

Purgeable Aromatics and Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

		•		•				<u> </u>				
									Control Limits			
		Source	Source		Spike			Percent		Percent	Lab	
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals	
QC Batch ID: BVA1707	Use	d client samp	ole: N									
Gasoline Range Organics (C4 - C12)	MS	1201079-04	ND	1111.4	1000.0	ug/L		111		70 - 130		
	MSD	1201079-04	ND	1096.5	1000.0	ug/L	1.4	110	20	70 - 130		
a,a,a-Trifluorotoluene (FID Surrogate)	MS	1201079-04	ND	43.441	40.000	ug/L		109		70 - 130		
	MSD	1201079-04	ND	41.733	40.000	ug/L	4.0	104		70 - 130		

02/03/2012 10:48 Reported:

Project: 5781 Project Number: 351640 Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BVB0135						
Diesel Range Organics (C12 - C24)	BVB0135-BLK1	ND	ug/L	40		
Tetracosane (Surrogate)	BVB0135-BLK1	97.8	%	28 - 139	(LCL - UCL)	

Reported: 02/03/2012 10:48

Project: 5781
Project Number: 351640
Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Laboratory Control Sample

								Control L			
		_	- "	Spike		Percent		Percent		Lab	
Constituent	QC Sample ID	Type	Result	Level	Units	Recovery	RPD	Recovery	RPD	Quals	
QC Batch ID: BVB0135											
Diesel Range Organics (C12 - C24)	BVB0135-BS1	LCS	488.51	500.00	ug/L	97.7		48 - 125			

Reported: 02/03/2012 10:48

Project S781

Project Number: 351640

Project Manager: Laura Heberle

Total Petroleum Hydrocarbons (Silica Gel Treated)

Quality Control Report - Precision & Accuracy

		•		•				<u> </u>				
									Control Limits			
		Source	Source		Spike			Percent		Percent	Lab	
Constituent	Type	Sample ID	Result	Result	Added	Units	RPD	Recovery	RPD	Recovery	Quals	
QC Batch ID: BVB0135	Use	d client samp	le: N									
Diesel Range Organics (C12 - C24)	MS	1201079-23	ND	436.12	500.00	ug/L		87.2		36 - 130		
	MSD	1201079-23	ND	533.48	500.00	ug/L	20.1	107	30	36 - 130		
Tetracosane (Surrogate)	MS	1201079-23	ND	17.922	20.000	ug/L		89.6		28 - 139		
	MSD	1201079-23	ND	20.453	20.000	ug/L	13.2	102		28 - 139		

Reported: 02/03/2012 10:48

Project S781
Project Number: 351640
Project Manager: Laura Heberle

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Notes And Definitions

MDL Method Detection Limit

ND Analyte Not Detected at or above the reporting limit

PQL Practical Quantitation Limit
RPD Relative Percent Difference

A01 PQL's and MDL's are raised due to sample dilution.

A52 Chromatogram not typical of diesel.

S09 The surrogate recovery on the sample for this compound was not within the control limits.

ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

Table 2
HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

March 10, 2011 76 Station 5781

				Ground-										
Date	TOC	Depth to	LPH	Water	Change in		TPH-G			Ethyl-	Total	MTBE	MTBE	
Sampled	Elevation	Water	Thickness	Elevation	Elevation	TPH-D	8015	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	Comments
_	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	
MW-4														
6/16/2010	153.48	11.13	0	142.35		ND<50	58	ND<0.50	9.7	1.3	16		5.4	
9/29/2010	153.48	12.62	0	140.86	-1.49	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		7.3	
12/21/2010	153.48	11.17	0	142.31	1.45	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/10/2011	153.48	10.57	0	142.91	0.60	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.2	
MW-5														
6/16/2010	153.66	11.95	0	141.71		3000	29000	580	6800	850	7200		ND<50	
9/29/2010	153.66	13.67	0	139.99	-1.72	64000	29000	220	4100	2500	23000		52	
12/21/2010	153.66	11.17	0	142.49	2.50	11000	50000	81	4800	2200	22000		ND<50	
3/10/2011	153.66	11.35	0	142.31	-0.18	4900	48000	69	3600	1700	20000		ND<50	
MW-6														
12/21/2010	154.62	12.10	0	142.52		ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		32	
3/10/2011	154.62	11.36	0	143.26	0.74	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		4.6	
MW-7														
12/21/2010		13.46	0	141.92		ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
3/10/2011	155.38	12.07	0	143.31	1.39	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
MW-8														
12/21/2010		11.63	0	142.08		81	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		3.9	
3/10/2011	153.71	11.38	0	142.33	0.25	61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		2.3	
MW-9														
12/21/2010		10.53	0	142.84		ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		1.2	
3/10/2011	153.37	10.86	0	142.51	-0.33	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.90	
MW-A														
12/18/1990						73	ND	ND	ND	ND	ND			
5/3/1991						ND	ND	ND	ND	ND	ND			
8/7/1991						ND	ND	ND	ND	ND	ND			
11/8/1991						ND	ND	ND	ND	ND	ND			
2/6/1992	151.80	19.88	0	131.92		ND	ND	ND	ND	ND	ND			
8/4/1992	151.80	18.95	0	132.85	0.93	ND	ND	ND	ND	ND	0.51			
2/10/1993	151.80	17.71	0	134.09	1.24	ND	ND	ND	ND	ND	ND			
2/10/1994	151.80	15.25	0	136.55	2.46	ND	ND	ND	0.52	ND	0.92			
2/9/1995	151.80	15.68	0	136.12	-0.43	ND	ND	ND	ND	ND	ND			
2/6/1996	151.80	12.52	0	139.28	3.16	120	ND	ND	ND	ND	2.1			
2/5/1997	151.80	13.01	0	138.79	-0.49	61	ND	ND	ND	ND	ND		ND	
2/2/1998	151.80	11.91	0	139.89	1.10	ND	ND	ND	ND	ND	ND		ND	
2/22/1999	151.80	11.24	0	140.56	0.67	ND	ND Page	ND 1 of 2	ND	ND	ND		ND	
							-							

Table 2 HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

March 10, 2011 76 Station 5781

				Ground-										
Date	TOC	Depth to	LPH	Water	Change in		TPH-G			Ethyl-	Total	MTBE	MTBE	
Sampled	Elevation	Water	Thickness	Elevation	Elevation	TPH-D	8015	Benzene	Toluene	benzene	Xylenes	(8021B)	(8260B)	Comments
	(feet)	(feet)	(feet)	(feet)	(feet)	$(\mu g/l)$								
2/26/2000	151.80	12.16	0	139.64	-0.92	ND	ND	ND	1.01	ND	ND		ND	
3/7/2001	151.80	11.91	0	139.89	0.25	131	ND							
2/22/2002	151.80	14.08	0	137.72	-2.17	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<5.0	
2/22/2003	151.80	14.41	0	137.39	-0.33	93	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	ND<2.0	
2/3/2004	151.80	14.32	0	137.48	0.09	60	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<2.0	
2/18/2005	151.80	14.21	0	137.59	0.11	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	ND<0.50	
3/29/2006	151.80	12.72	0	139.08	1.49	ND<200	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	0.54	
3/28/2007	151.80	13.98	0	137.82	-1.26	92	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/22/2008	151.80	12.68	0	139.12	1.30	ND<50	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/27/2009	151.80	14.35	0	137.45	-1.67	53	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/23/2010	151.80	19.55	0	132.25	-5.20	ND<58								
6/16/2010	154.79	17.85	0	136.94	4.69	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		ND<0.50	
9/29/2010	154.79	15.50	0	139.29	2.35	ND<1200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.63	
12/21/2010	154.79	14.43	0	140.36	1.07	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.65	
3/10/2011	154.79	17.70	0	137.09	-3.27	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0		0.56	

Table 2a ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 5781

					Ethylene-								Bromo-	
D	ate	TPH-G		Ethanol	dibromide	1,2-DCA					Total Oil		dichloro-	
San	npled	(GC/MS)	TBA	(8260B)	(EDB)	(EDC)	DIPE	ETBE	TAME	Methanol	and Grease	TRPH	methane	Comments
		()	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(mg/l)	(mg/l)	(µg/l)						
MW-4														
6/16	5/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
9/29	0/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
12/2	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
3/10	0/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
MW-5														
6/16	5/2010		ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100				
9/29	0/2010		ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<1000				
12/2	1/2010		ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100				
3/10)/2011		ND<1000	ND<25000	ND<50	ND<50	ND<50	ND<50	ND<50	ND<100				
MW-6														
12/2	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
3/10	0/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
MW-7														
12/2	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
3/10)/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
MW-8														
12/2	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
3/10)/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
MW-9														
12/21	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
3/10)/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
MW-A														
2/6/	/1996													
	/1997													
	/2001		ND	ND	ND	ND	ND	ND	ND					
2/22	2/2003		ND<100	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0					
2/3/	/2004		ND<100	ND<500	ND<2.0	ND<0.50	ND<2.0	ND<2.0	ND<2.0			ND<1.0	ND<0.50	
2/18	3/2005		ND<5.0	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<2.0		ND<0.50	
3/29	0/2006		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50				ND<0.50	
3/28	3/2007		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<5.0		ND<0.50	
3/22	2/2008		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<5.0		ND<0.50	
3/27	7/2009		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		ND<5.0		ND<0.50	
	5/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
9/29	0/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
	1/2010		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<100				
	0/2011		ND<10	ND<250	ND<0.50	ND<0.50	ND<0.50	ND<0.50 Page		ND<100				

Table 2b ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 5781

			Carbon			2-			Dibromo-	1,2-	1,3-	1,4-	
Date	Bromo-	Bromo-	Tetra-	Chloro-	Chloro-	Chloroethyl		Chloro-	chloro-	Dichloro-	Dichloro-	Dichloro-	
Sampled	form (μg/l)	methane (µg/l)	chloride (µg/l)	benzene (µg/l)	ethane (µg/l)	vinyi etner (μg/l)	Chloroform $(\mu g/l)$	methane (µg/l)	methane (μg/l)	benzene (µg/l)	benzene (µg/l)	benzene (µg/l)	Comments
MW-4	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	
6/16/2010													
9/29/2010													
12/21/2010													
3/10/2011													
MW-5													
6/16/2010													
9/29/2010													
12/21/2010													
3/10/2011													
MW-6													
12/21/2010													
3/10/2011													
MW-7													
12/21/2010													
3/10/2011													
MW-8													
12/21/2010													
3/10/2011													
MW-9													
12/21/2010													
3/10/2011													
MW-A													
2/6/1996													
2/5/1997													
3/7/2001													
2/22/2003	 ND -2.0	 ND -1 0	 ND -0.50	 ND -0.50	 ND -1 0	 ND -0.50	 ND -0 50	 ND -2.0	 ND -0.50	 ND -0.50	 ND -0.50	 ND -0 50	
2/3/2004 2/18/2005	ND<2.0 ND<2.0	ND<1.0 ND<1.0	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<1.0 ND<1.0	ND<0.50	ND<0.50 ND<0.50	ND<2.0 ND<1.0	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	
3/29/2006	ND<0.50	ND<1.0	ND<0.50 ND<0.50	ND<0.50	ND<0.50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
3/28/2007	ND<0.50	ND<1.0		ND<0.50	ND<0.50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	
3/22/2008 3/27/2009	ND<0.50 ND<0.50	ND<1.0 ND<1.0	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50		ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	ND<0.50 ND<0.50	
6/16/2010					ND<0.50								
9/29/2010													
12/21/2010													
12/21/2010							Page 1	of 2					

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Table 2b ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 5781

			Carbon			2-			Dibromo-	1,2-	1,3-	1,4-	
Date	Bromo-	Bromo-	Tetra-	Chloro-	Chloro-	Chloroethyl		Chloro-	chloro-	Dichloro-	Dichloro-	Dichloro-	
Sampled	form	methane	chloride	benzene	ethane	vinyl ether	Chloroform	methane	methane	benzene	benzene	benzene	Comments
	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$								
3/10/2011													

Table 2c ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 5781

	Dichloro-					1,2-	cis-1,3-	trans-1,3-			Tetrachloro		
Date	difluoro-			cis-	trans-	Dichloro-	Dichloro-	Dichloro-		Tetrachloro-		trifluoro-	_
Sampled	methane (µg/l)	1,1-DCA (μg/l)	1,1-DCE (µg/l)	1,2-DCE (μg/l)	1,2-DCE (μg/l)	propane (μg/l)	propene (μg/l)	propene (μg/l)	chloride (µg/l)	ethane (µg/l)	(PCE) (µg/l)	ethane (µg/l)	Comments
MW-4	(μg/1)	(μg/1)	(μg/1)	(μg/1)									
6/16/2010													
9/29/2010													
12/21/2010													
3/10/2011													
MW-5													
6/16/2010													
9/29/2010													
12/21/2010													
3/10/2011													
MW-6													
12/21/2010													
3/10/2011													
MW-7													
12/21/2010													
3/10/2011													
MW-8													
12/21/2010													
3/10/2011													
MW-9													
12/21/2010													
3/10/2011													
MW-A													
2/6/1996													
2/5/1997													
3/7/2001													
2/22/2003													
2/3/2004	ND<1.0	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50							
2/18/2005	ND<1.0	ND<0.50	ND<5.0	ND<0.50	ND<0.50	ND<0.50							
3/29/2006	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50								
3/28/2007	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50								
3/22/2008	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50								
3/27/2009	ND<0.50	ND<1.0	ND<0.50	ND<0.50	ND<0.50								
6/16/2010													
9/29/2010													
12/21/2010													
3/10/2011							 D	 1 of 1					
							Page 1	I Of I					

Table 2d ADDITIONAL HISTORIC ANALYTICAL RESULTS

76 Station 5781

Date Sampled	1,1,1- Trichloro- ethane (µg/l)	1,1,2- Trichloro- ethane (µg/l)	Trichloro- ethene (TCE) (µg/l)	Trichloro- fluoro- methane (µg/l)	Vinyl chloride (µg/l)	Comments	
MW-4			, ,				
6/16/2010							
9/29/2010							
12/21/2010							
3/10/2011							
MW-5							
6/16/2010							
9/29/2010							
12/21/2010							
3/10/2011							
MW-6							
12/21/2010							
3/10/2011							
MW-7							
12/21/2010							
3/10/2011							
MW-8							
12/21/2010							
3/10/2011							
MW-9							
12/21/2010							
3/10/2011							
MW-A							
2/6/1996							
2/5/1997							
3/7/2001							
2/22/2003							
2/3/2004	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50		
2/18/2005	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50		
3/29/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		
3/28/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		
3/22/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		
3/27/2009	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50		
6/16/2010							
9/29/2010							
12/21/2010							
3/10/2011							Page 1 of 1

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TABLE KEY

STANDARD ABBREVIATIONS

-- not analyzed, measured, or collected

LPH = liquid-phase hydrocarbons

μg/l = micrograms per liter (approx equivalent to parts per billion, ppb)
 mg/l = milligrams per liter (approx equivalent to parts per million, ppm)

ND< = not detected at or above laboratory detection limit TOC = top of casing (surveyed reference elevation)

D = duplicate P = no-purge sample

ANALYTES

DIPE = di-isopropyl ether

FTBE = ethyl tertiary butyl ether

MTBE = methyl tertiary butyl ether

PCB = polychlorinated biphenyls

PCE = tetrachloroethene
TBA = tertiary butyl alcohol
TCA = trichloroethane
TCE = trichloroethene

TPH-G = total petroleum hydrocarbons with gasoline distinction

TPH-G (GC/MS) = total petroleum hydrocarbons with gasoline distinction utilizing EPA Method 8260B

TPH-D = total petroleum hydrocarbons with diesel distinction

TRPH = total recoverable petroleum hydrocarbons

TAME = tertiary amyl methyl ether

1,2-DCA = 1,2-dichloroethane (same as EDC, ethylene dichloride)

NOTES

- 1 Elevations are in feet above mean sea level Depths are in feet below surveyed top-of-casing
- 2 Groundwater elevations for wells with LPH are calculated as Surface Elevation Measured Depth to Water + (Dp x LPH Thickness), where Dp is the density of the LPH, if known A value of 0.75 is used for gasoline and when the density is not known A value of 0.83 is used for diesel
- 3 Wells with LPH are generally not sampled for laboratory analysis (see General Field Procedures)
- 4 Comments shown on tables are general Additional explanations may be included in field notes and laboratory reports, both of which are included as part of this report
- 5 A "J" flag indicates that a reported analytical result is an estimated concentration value between the method detection limit (MDL) and the practical quantification limit (PQL) specified by the laboratory
- 6 Other laboratory flags (qualifiers) may have been reported See the official laboratory report (attached) for a complete list of laboratory flags
- Concentration graphs based on tables (presented following Figures) show non-detect results prior to the Second Quarter 2000 plotted at fixed values for graphical display Non-detect results reported since that time are plotted at reporting limits stated in the official laboratory report
- Prior to the 1st quarter 2010, the word "monitor" was used in table comments interchangeably with the word "gauge" Starting in the 1st quarter 2010, the word "monitor" is used to include both "gauge" and "sample"

REFERENCE

TRC began groundwater monitoring and sampling for 76 Station 5781 in October 2003 Historical data compiled prior to that time were provided by Gettler-Ryan Inc