

Carryl MacLeod Project Manager Marketing Business Unit **Chevron Environmental Management Company** 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6506 cmacleod@chevron.com

October 30, 2012

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

Re: Former Texaco Service Station 211253

930 Springtown Boulevard Livermore, California ACEHS Case No. RO0189 **RECEIVED** 

4:15 pm, Nov 01, 2012

Alameda County Environmental Health

I accept the Third Quarter 2012 Groundwater Monitoring and Sampling Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This Third Quarter 2012 Groundwater Monitoring and Sampling 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,

Carryl MacLeod Project Manager

Attachment: Third Quarter 2012 Groundwater Monitoring and Sampling Report



5900 Hollis Street, Suite A Emeryville, California 94608

Telephone: (510) 420-0700 Fax: (510) 420-9170

http://www.craworld.com

October 30, 2012 Reference No. 060058

Mr. Jerry Wickham Alameda County Environmental Health Services (ACEH) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Re: Third Quarter 2012

Groundwater Monitoring and Sampling Report

Former Texaco Station 211253 930 Springtown Boulevard Livermore, California ACEH Case RO0189

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Third Quarter 2012 Groundwater Monitoring and Sampling Report* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above (Figure 1). Groundwater monitoring and sampling was performed by Gettler-Ryan, Inc. (G-R) of Dublin, California and their *Groundwater Monitoring Data Package* is included as Attachment A. Current groundwater monitoring and sampling data are presented in Table 1. Lancaster Laboratories' *Analytical Results* is included as Attachment B. Historical groundwater monitoring and sampling data are included as Attachment C.

### **RESULTS OF THIRD QUARTER 2012 EVENT**

On August 22, 2012, G-R monitored and sampled wells per the established schedule. Monitoring wells are divided into three different zones based on the screen intervals: shallow zone (wells MW-9, MW-11, MW-14, MW-18, MW-19, and MW-20), intermediate zone (wells MW-10, MW-12, MW-13, MW-16, and MW-17), and deep zone (well MW-15). Groundwater elevations and hydrocarbon concentrations maps for the shallow, intermediate, and deep zones are illustrated on Figures 2, 3, and 4, respectively.

Equal Employment Opportunity Employer



Results of the current monitoring event indicate the following:

• Groundwater Flow Direction

Shallow (Figure 2)Intermediate (Figure 3)Northwest

o Deep (Figure 4) Not Applicable (only 1 well)

• Approximate Depth to Groundwater

o Shallow Wells 10 to 13.5 feet below grade (fbg)

o Intermediate Wells 11 to 14.5 fbg

o Deep Well 11 fbg

Results of the third quarter 2012 sampling event are presented below in Table A.

	TABLE A: GROUNDWATER ANALYTICAL DATA										
					Total						
	ТРНд	Benzene	Toluene	Ethylbenzene	Xylenes						
Well ID	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)						
ESLs	100	1	40	30	20						
		Shallo	ow Wells								
MW-9	1,300	<b>&lt;</b> 5	<5	8	7						
MW-11	510	<0.5	<0.5	<0.5	<0.5						
MW-14	22,000	890	990	600	2,600						
MW-18	3,600	80	310	170	550						
MW-19	1,300	<0.5	<0.5	17	2						
MW-20	4,800	<5	42	120	320						
		Interme	diate Wells								
MW-10	600	2	0.7	2	2						
MW-12	8,500	<5	12	120	160						
MW-13	35,000	2,000	5,600	340	4,500						
MW-16	<50	<0.5	<0.5	<0.5	<0.5						
MW-17	<50	<0.5	<0.5	<0.5	<0.5						
		Dee	p Well								
MW-15	<50	<0.5	<0.5	<0.5	< 0.5						

μg/L Micrograms per liter

Indicates constituent was not detected at or above stated laboratory reporting limit Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007, revised May 2008. – Table F-1a where groundwater is a potential drinking water source

Data in **bold** represent concentrations that exceed applicable ESLs



Between May 2010 and August 2012, LNAPL has been detected in shallow well MW-14 at a maximum of 0.34 feet thick. In May 2012, a sorbent LNAPL sock was installed in well MW-14 as an interim remedial measure. The LNAPL sock is replaced on a biweekly basis and field data sheets are presented in Attachment A. On September 21, 2012, no LNAPL was detected or LNAPL staining was observed on the sorbent sock in MW-14.

### **CONCLUSIONS AND RECOMMENDATIONS**

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

- Based on similar depth to groundwater data in shallow, intermediate, and deep monitoring wells it appears the three groundwater zones may be hydraulically connected.
- Light non-aqueous phase liquid (LNAPL) has been detected in shallow well MW-14. A sorbent LNAPL sock has been installed in MW-14 as an interim remedial measure. During the third quarter sampling event, MW-14 was sampled since no LNAPL was detected.
- The shallow water bearing zone is adequately delineated laterally by destroyed wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-7, and MW-8, and current wells MW-9, MW-11, MW-19, and MW-20.
- The highest dissolved hydrocarbon concentrations are detected in intermediate well MW-13 located west-northwest of the former underground storage tanks and dispensers.
- Intermediate wells MW-10, MW-16, and MW-17 adequately define the downgradient extent of dissolved hydrocarbons in the intermediate zone to near or below ESLs.
- Deep well MW-15 defines the vertical extent of hydrocarbons in groundwater beneath the source area.

CRA recommends continued quarterly monitoring and sampling of new wells MW-17 through MW-20 until first quarter 2013, and quarterly monitoring and semi-annual sampling of wells MW-9 through MW-16 to petroleum hydrocarbon concentration trends. After the first quarter 2013 (four quarters of groundwater sampling data), CRA recommends MW-17 through MW-20 be monitored and sampled semi-annually during the first and third quarters. CRA recommends that the LNAPL sock in MW-14 be replaced quarterly now that LNAPL thickness and mass removal has diminished.



### **ANTICIPATED FUTURE ACTIVITIES**

### **Groundwater Monitoring**

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

### Draft Feasibility Study and Corrective Action Plan (FS/CAP)

As requested by ACEH in a letter dated September 5, 2012, CRA is drafting a response that will be submitted prior to the November 5, 2012 deadline.

### Absorbent Sock

G-R will continue to replace the absorbent sock in well MW-14 on a quarterly basis as an interim remedial action to remove LNAPL.



Please contact Ms. Tina Hariu at (510) 420-3344 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

NO. 8931 TO SEE STATE OF CALIFORNIA A

Celina Hernandez, P.G. 8931

CH/aa/18

Encl.

Figure 1 Vicinity Map

Figure 2 Groundwater Elevation and Hydrocarbon Concentrations Map –

Shallow Zone

Figure 3 Groundwater Elevation and Hydrocarbon Concentrations Map -

Intermediate Zone

Figure 4 Groundwater Elevation and Hydrocarbon Concentrations Map –

Deep Zone

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



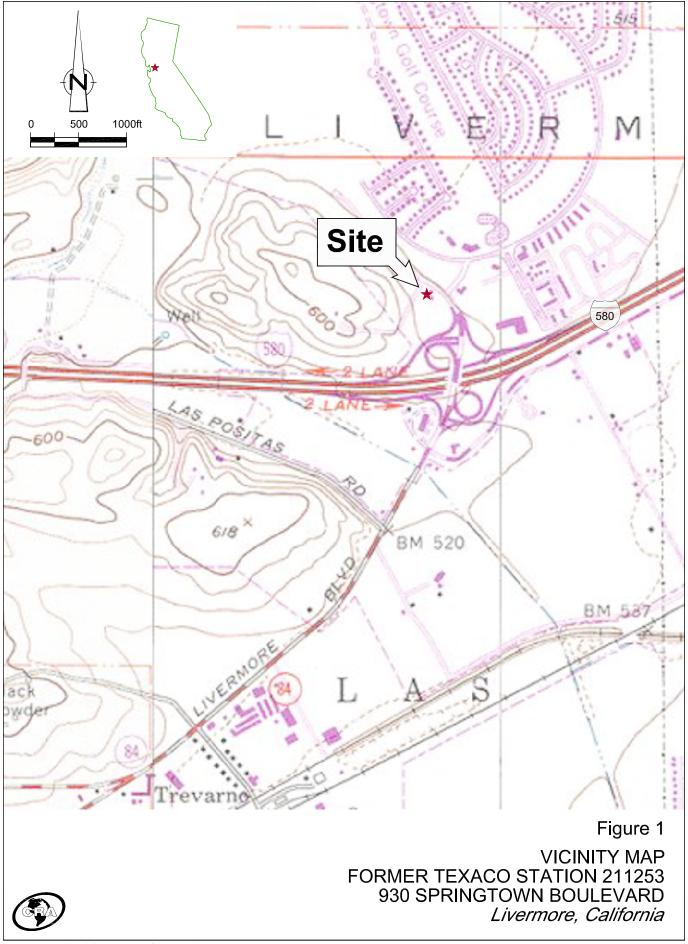
October 30, 2012 Reference No. 060058 - 6 -

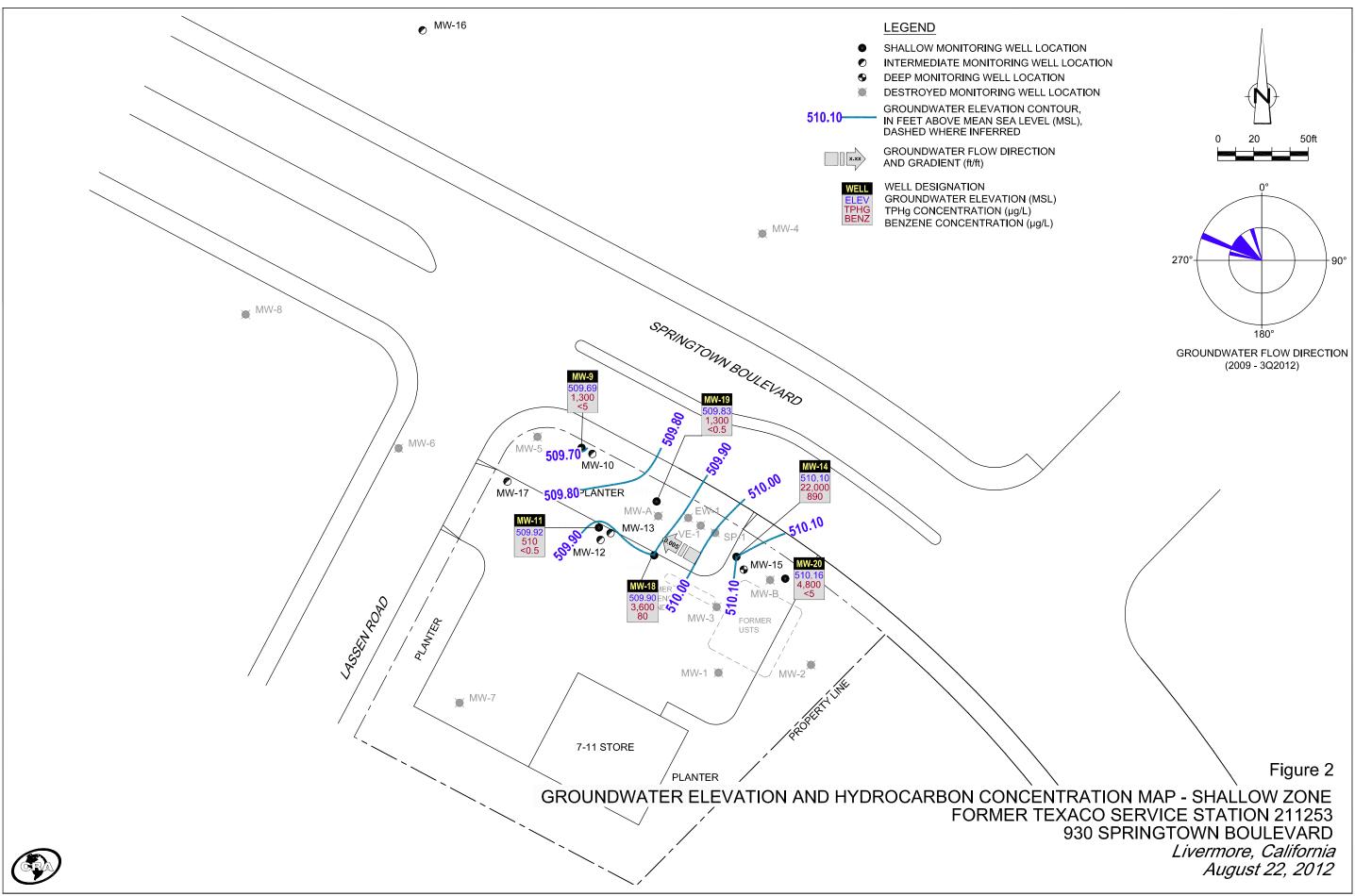
Ms. Carryl MacLeod, Chevron (electronic copy) Mr. Joe Zadik cc:

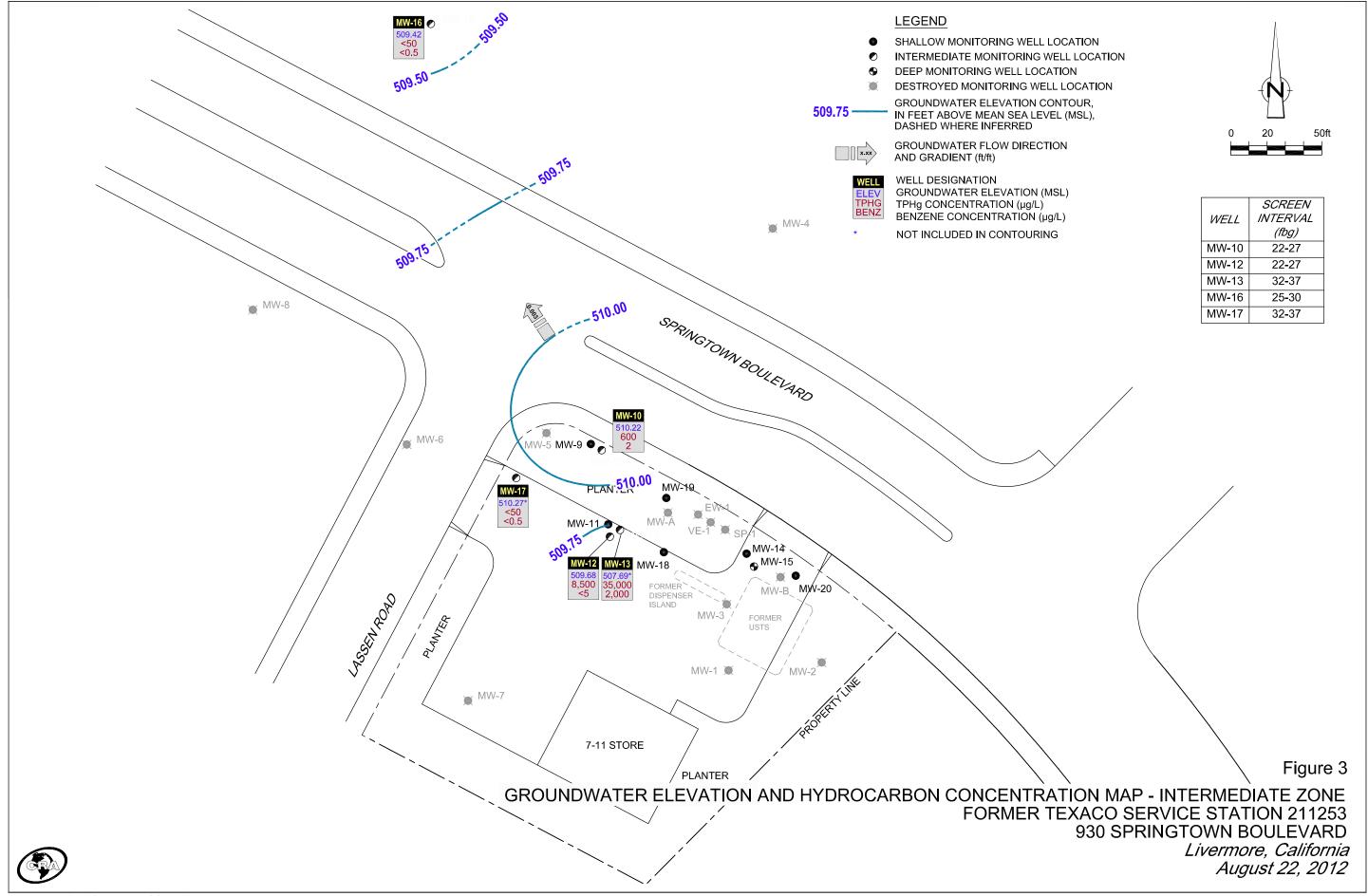
Mr. Ken Hilliard

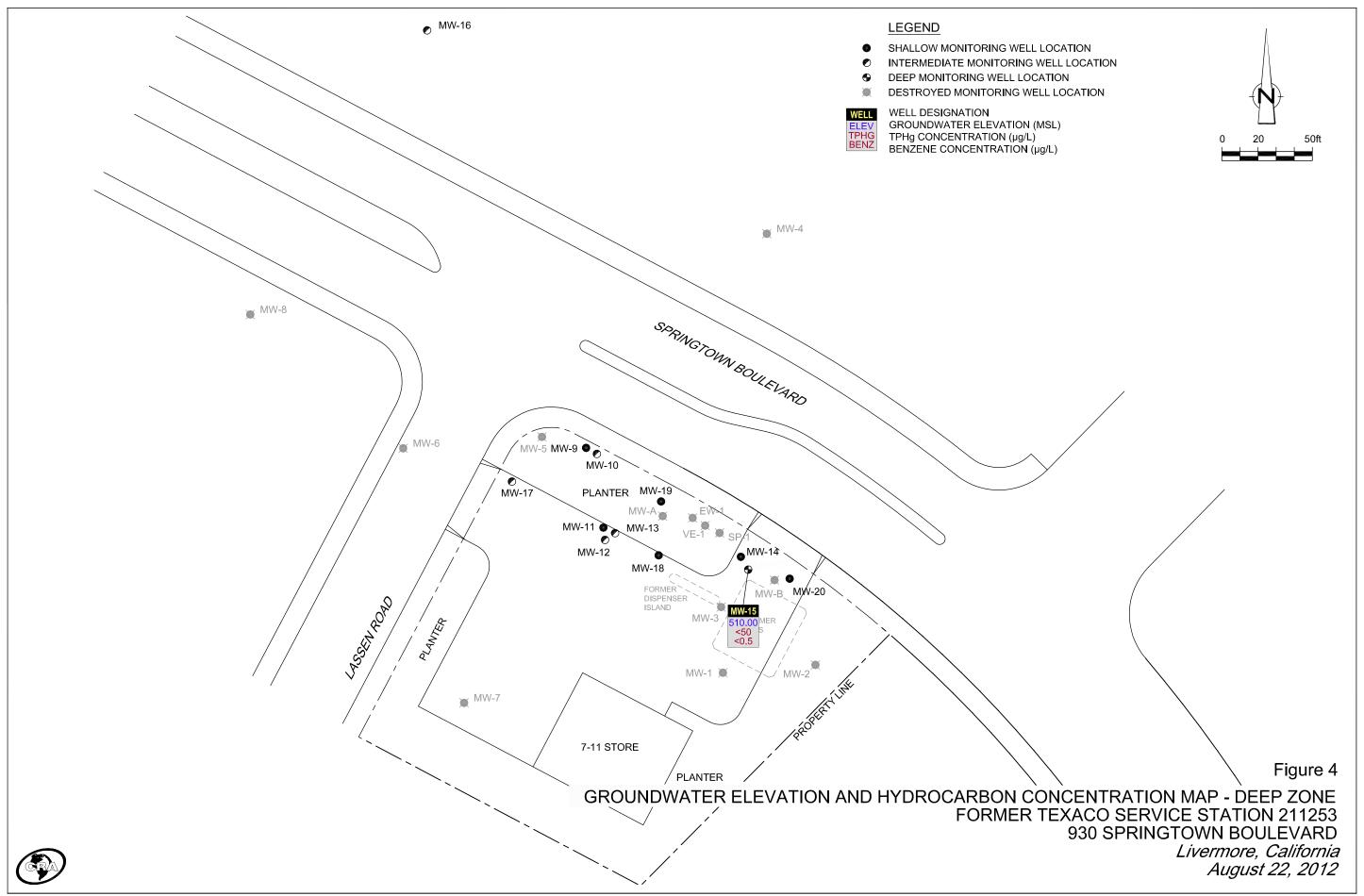
Mr. Kirk F. Sniff, Esq, Strasburger & Price, LLP

## **FIGURES**









**TABLE** 

TABLE 1 Page 1 of 4

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER TEXACO SERVICE STATION 211253 930 SPRINGTOWN BOULEVARD LIVERMORE, CALIFORNIA

							HYDROCARBONS PRIMARY VOCS					GENERAL CHEMISTRY					
Location	Date Units	TOC ft	DTW ft	GWE ft-amsl	tf LNAPLT	gallons	7€ TPH-GRO	B µg/L	T µg/L	E µg/L	X µg/L	7/8th	Ferrous iron	Nitrate as Nitrogen	Sulfate		
MW-9 <sup>2</sup>	00 /24 /2010	F22 14	12.50	F00 F6			2.500	-	0	100	70						
MW-9 <sup>2</sup>	08/24/2010	523.14	13.58	509.56	-	-	3,500	6	8	180	79 -0.5	-	-	-	-		
MW-9 <sup>2</sup>	01/31/2011 08/09/2011	523.14 523.14	12.31	510.83 511.13	-	-	68 54	<0.5 <0.5	<0.5	3 <0.5	<0.5 <0.5	-	-	-	-		
MW-9 <sup>2</sup>	02/09/2011	523.14	12.01 13.05	510.09	-	-	5,300	6	<0.5 7	250	120	-	-	-	-		
MW-9 <sup>2,5</sup>	05/10/2012	523.14	12.52	510.62	-	-	-	O	-	-	-	-	-	-	-		
MW-9 <sup>2</sup>	08/22/2012	523.14 523.14	13.45	509.69	-	-	1,300	- <5	- <5	8	- 7	2,900	9,200	<250	24,000		
	00/24/2012	020.11	10.10	505.05			1,500			Ü	,	2,500	J,200	1200	21,000		
MW-10 <sup>3</sup>	08/24/2010	523.25	13.07	510.18	-	-	1,300	<0.5	<0.5	2	<0.5	_	-	_	_		
MW- $10^3$	01/31/2011	523.25	11.92	511.33	-	-	250	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-		
MW- $10^3$	08/09/2011	523.25	11.85	511.40	-	-	300	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-		
MW- $10^3$	02/09/2012	523.25	12.62	510.63	-	-	140	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-		
MW- $10^{3,5}$	05/10/2012	523.25	12.26	510.99	-	-	-	-	-	-	-	-	-	-	-		
MW-10 <sup>3</sup>	08/22/2012	523.25	13.03	510.22	-	-	600	2	0.7	2	2	670	580	<250	24,400		
MW-11 <sup>2</sup>	08/24/2010	523.42	13.80	509.62	-	_	2,000 J	6	2	9	5	_	_	_	_		
MW-11 <sup>2</sup>	01/31/2011	523.42	12.35	511.07	_	_	790	1	<0.5	5	3	_	_	_	_		
MW-11 <sup>2</sup>	08/09/2011	523.42	12.06	511.36	-	-	130	< 0.5	< 0.5	0.9	< 0.5	-	-	_	-		
MW-11 <sup>2</sup>	02/09/2012	523.42	13.06	510.36	-	-	220	< 0.5	< 0.5	< 0.5	< 0.5	-	-	_	-		
MW-11 <sup>2, 5</sup>	05/10/2012	523.42	12.58	510.84	-	-	-	-	-	-	-	-	-	_	-		
MW-11 <sup>2</sup>	08/22/2012	523.42	13.50	509.92	-	-	510	<0.5	<0.5	<0.5	<0.5	760	1,400	<250	59,500		
MW-12 <sup>3</sup>	08/24/2010	523.12	12.84	510.28	-	_	18,000	210	650	330	1,900	_	_	_	_		
MW-12 <sup>3</sup>	01/31/2011	523.12	12.47	510.65	-	_	9,600	64	180	180	400	_	_	_	_		
MW-12 <sup>3</sup>	08/09/2011	523.12	12.19	510.93	-	_	9,000	71	140	170	580	_	_	_	_		
MW-12 <sup>3</sup>	02/09/2012	523.12	13.11	510.01	_	_	8,700	85	130	170	590	_	_	_	_		
MW-12 3,5	05/10/2012	523.12	12.71	510.41	_	_	-	-	-	-	-	_	_	_	_		
MW-12 <sup>3</sup>	08/22/2012	523.12	13.44	509.68	-	-	8,500	<5	12	120	160	2,000	6,400	<250	3,200		
MW-13 <sup>3</sup>	08/24/2010	520.88	13.69	507.19	-	-	13,000	810	710	76	660	-	-	-	-		

TABLE 1 Page 2 of 4

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER TEXACO SERVICE STATION 211253 930 SPRINGTOWN BOULEVARD LIVERMORE, CALIFORNIA

•							HYDROCARBONS PRIMARY VOCS					GENERAL CHEMISTRY				
Location	Date Units	TOC ft	DTW ft	GWE ft-amsl	tf LNAPLT	suolles	7ДРН-GRО	Β μg/L	Τ μg/L	Ε μg/L	X µg/L	Methane	Ferrous iron	Nitrate as Nitrogen	Sulfate	
MW-13 <sup>3</sup>	01/31/2011	520.88	12.21	508.67			22,000	1,600	1,600	270	1,600					
MW-13 <sup>3</sup>	08/09/2011	520.88	11.91	508.97	-	-	12,000	1,200	820	120	710	_	_	_	-	
MW-13 <sup>3</sup>	02/09/2012	520.88	12.83	508.05	_	_	18,000	1,600	3,700	370	2,200	_	_	_	_	
MW-13 <sup>3,5</sup>	05/10/2012	520.88	12.44	508.44	_	_	-	-	-	-	-	-	_	_	_	
MW-13 <sup>3</sup>	08/22/2012	520.88	13.19	507.69	-	-	35,000	2,000	5,600	340	4,500	8,500	1,200	<250	2,600	
MW-14 <sup>2</sup>	08/24/2010 <sup>1,**</sup>	520.88	10.36	510.75	0.29	0.00	-	-	-	-	-	-	_	-	-	
MW-14 $^2$	01/31/2011 1,**	520.88	9.96	511.12	0.25	0.00	-	-	-	-	-	-	-	-	-	
MW-14 $^2$	08/09/2011 1,**	520.88	9.67	511.35	0.17	0.00	-	-	-	-	-	-	-	-	-	
MW-14 $^2$	02/09/2012 1,**	520.88	10.69	510.46	0.34	0.00	-	-	-	-	-	-	-	-	-	
MW-14 $^{2,5}$	05/10/2012 1,**	520.88	10.18	510.91	0.26	0.00	-	-	-	-	-	-	-	-	-	
MW-14 <sup>2</sup>	05/30/2012	520.88					Sorben	nt Sock Insta	lled							
MW-14 $^2$	06/14/2012	520.88	10.36	510.65	0.16	1.25	-	-	-	-	-	-	-	-	-	
MW-14 <sup>2</sup>	06/25/2012	520.88	10.44	510.47	0.04	0.98	-	-	-	-	-	-	-	-	-	
MW-14 <sup>2</sup>	07/11/2012	520.88	10.52	510.41	0.06	1.34	-	-	-	-	-	-	-	-	-	
MW-14 $^2$	07/24/2012	520.88	10.70	510.20	0.02	0.45	-	-	-	-	-	-	-	-	-	
MW-14 <sup>2</sup>	08/08/2012	520.88	13.74	507.16	0.03	0.46	-	-	-	-	-	-	-	-	-	
MW-14 <sup>2</sup>	08/22/2012	520.88	10.78	510.10	-	0.33	22,000	890	990	600	2,600	1,200	1,000	<250	145,000	
MW-14 <sup>2</sup>	09/04/2012	520.88	10.82	531.70	-	0.16	-	-	-	-	-	-	-	-	-	
MW-15 <sup>4</sup>	08/24/2010	520.87	10.81	510.06	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-15 <sup>4</sup>	01/31/2011	520.87	9.86	511.01	-	-	<50	< 0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-15 <sup>4</sup>	08/09/2011	520.87	9.56	511.31	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-15 <sup>4</sup>	02/09/2012	520.87	10.44	510.43	-	-	<50	<0.5	<0.5	<0.5	< 0.5	-	-	-	-	
MW-15 4,5	05/10/2012	520.87	10.05	510.82	-	-	-	-	-	-	-	-	-	-	-	
MW-15 <sup>4</sup>	08/22/2012	520.87	10.87	510.00	-	-	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<10	2,100	267,000	
MW-16 <sup>3</sup>	08/24/2010	520.50	11.07	509.43	-	-	68	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-16 $^3$	01/31/2011	520.50	9.99	510.51	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	

TABLE 1 Page 3 of 4

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER TEXACO SERVICE STATION 211253 930 SPRINGTOWN BOULEVARD LIVERMORE, CALIFORNIA

							HYDROCARBONS PRIMARY VOCS					GENERAL CHEMISTRY				
Location	Date Units	TOC ft	DTW ft	GWE ft-amsl	tt LNAPLT	Sallons	т Трн-GRO	B µg/L	T µg/L	E µg/L	X µg/L	Nethane	Ferrous iron	Nitrate as Nitrogen	Sulfate	
) (TAT 1 6 3																
MW-16 <sup>3</sup>	08/09/2011	520.50	9.59	510.91	-	-	66	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-16 <sup>3</sup>	02/09/2012	520.50	10.62	509.88	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
MW-16 <sup>3,5</sup> <b>MW-16</b> <sup>3</sup>	05/10/2012	520.50	10.18	510.32	-	-	-	-	-	-	-	-	-	-	-	
W1VV-16	08/22/2012	520.50	11.08	509.42	-	-	<50	<0.5	<0.5	<0.5	<0.5	1,000	16	590	49,400	
MW-17 <sup>3</sup>	02/07/2012	524.81	14.50	510.31	_	_	-	_	_	_	_	_	_	_	_	
MW-17 <sup>3</sup>	02/09/2012	524.81	14.58	510.23	_	_	<50	<0.5	<0.5	<0.5	<0.5	_	_	_	_	
MW-17 <sup>3</sup>	05/10/2012	524.81	14.10	510.71	_	_	<50	<0.5	<0.5	<0.5	<0.5	_	_	_	_	
MW-17 <sup>3</sup>	08/22/2012	524.81	14.54	510.27	_	_	<50	<0.5	<0.5	<0.5	<0.5	25	<10	3,700	77,400	
	,													-,	,	
MW-18 <sup>2</sup>	02/07/2012	522.40	12.01	510.39	-	-	-	-	-	-	-	-	-	-	-	
MW-18 <sup>2</sup>	02/09/2012	522.40	12.06	510.34	-	-	12,000	200	1,300	68	2,200	-	-	-	-	
MW-18 <sup>2</sup>	05/10/2012	522.40	11.60	510.80	-	-	6,700	220	390	380	720	-	-	-	-	
MW-18 <sup>2</sup>	08/22/2012	522.40	12.50	509.90	-	-	3,600	80	310	170	550	240	2,500	580	143,000	
MW-19 <sup>2</sup>	02/07/2012	F22 (2	12.20	F10.22												
MW-19 <sup>2</sup>	02/07/2012	522.63 522.63	12.30 12.39	510.33 510.24	-	-	- 6,700	-	- <3	18	- 35	-	-	-	-	
MW-19 <sup>2</sup>	02/09/2012				-	-		4		0.7		-	-	-	-	
MW-19 <sup>2</sup>	08/22/2012	522.63 <b>522.63</b>	11.92 <b>12.80</b>	510.71 <b>509.83</b>	-	-	1,500 <b>1,300</b>	<0.5 <0.5	<0.5 <0.5	0.7 <b>17</b>	0.9 <b>2</b>	- 1,900	820	<250	32,900	
11111 15	00/22/2012	322.03	12.00	309.03	-	-	1,300	<b>\0.</b> 3	<b>\0.</b> 5	17	2	1,900	620	<b>\230</b>	32,900	
MW-20 <sup>2</sup>	02/07/2012	520.28	9.60	510.68	_	_	-	_	_	_	_	_	_	_	_	
MW-20 <sup>2</sup>	02/09/2012	520.28	9.68	510.60	_	_	9,100	3	94	200	600	_	_	_	_	
MW-20 <sup>2</sup>	05/10/2012	520.28	9.32	510.96	_	_	3,900	<5	28	42	230	_	_	_	_	
MW-20 <sup>2</sup>	08/22/2012	520.28	10.12	510.16	_	_	4,800	<5	42	120	320	37	2,800	<250	234,000	
	, ,						•						,		ŕ	
QA	08/24/2010	-	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5	-	-	-	-	
QA	01/31/2011	-	-	-	-	-	<50	< 0.5	< 0.5	< 0.5	<0.5	-	-	-	-	
QA	08/09/2011	-	-	-	-	-	<50	< 0.5	< 0.5	< 0.5	<0.5	-	-	-	-	
QA	02/09/2012	-	-	-	-	-	<50	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	

TABLE 1 Page 4 of 4

#### GROUNDWATER MONITORING AND SAMPLING DATA FORMER TEXACO SERVICE STATION 211253 930 SPRINGTOWN BOULEVARD LIVERMORE, CALIFORNIA

							HYDROCARBONS	CARBONS PRIMARY VOCS				GENERAL CHEMISTRY						
Location	Date	тос	DTW	GWE	LNAPLT	LNAPL REMOVED	TPH-GRO	В	T	E	X	Methane	Ferrous iron	Nitrate as Nitrogen	Sulfate			
	Units	ft	ft	ft-amsl	ft	gallons	μg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
QA <b>QA</b>	05/10/2012 <b>08/22/2012</b>	-	-	-	- -	- -	<50 < <b>50</b>	<0.5 <0.5	<0.5 < <b>0.5</b>	<0.5 <0.5	<0.5 < <b>0.5</b>	- -	-	- -	-			

#### Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

(ft-amsl) = Feet above mean sea level

ft = Feet

 $\mu$ g/L = Micrograms per Liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes (Total)

-- = Not available / not applicable

x = Not detected above laboratory method detection limit

#### J = Estimated concentration

- \* TOC elevations were surveyed on July 22, 2009, by Morrow Surveying. Vertical datum is NAVD 88 from GPS Observations.
- \*\* GWE was corrected for the presence of LNAPL; correction factor: [(TOC DTW) + (LNAPLT x 0.80)].
- Not sampled due to the presence of LNAPL.
- 2 Shallow well
- 3 Intermediate well
- 4 Deep well
- 5 Sampled semi-annually during the first and third quarters

### ATTACHMENT A

MONITORING DATA PACKAGE



# TRANSMITTAL

August 29, 2012 G-R #385867

TO:

Ms. Tina Hariu

Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite 3 Dublin, California 94568 RE:

**Former Texaco Service Station** 

930 Springtown Blvd. Livermore, California

(Site #211253)

### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Bi-weekly Absorbent Sock Change Out and Third Quarter Event of August 22, 2012

#### COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans/211253

pg. 1042

					WELL (	CONDITIO	ON STATUS	SHEET	Γ		P87 1
Client/Facility #: Site Address: City:		n #211253 ingtown Bl ore, CA	vd.			- -	Job #: Event Date: Sampler:	385867 8,22:12 M			
WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT  Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-1/	OK						~	10	10	ENGO/12"/2	NO
MW-12	OK						>	1	1	1	1
MW-13	OK						>				
MW-14	OK						<b>&gt;</b>				
MW-15	OK						_>				
MW-16	OK,						>				11
MW-18	OK						->		V		V
								,			
			_								

Comments

## **WELL CONDITION STATUS SHEET**

2012

Client/Facility #:	Chevron #211253	Job#:	385867
Site Address:	930 Springtown Blvd.	Event Date:	8.22.12
City:	Livermore, CA	Sampler:	FT

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y (N)	REPLACE CAP Y	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y N
Mw-9	OK	OK	OK	OK	DIL	014	BK		1	Enco  12"   2	
MW-10			1								
MW-17											
Mw-19											
MW-20	4	4	4	4	4	4	1	4	4		
	!						*	1			

Comments				
		<del></del>	 	
				· · · · · · · · · · · · · · · · · · ·

### STANDARD OPERATING PROCEDURE -GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Evergreen Oil located in Newark, California.



Client/Facility#:	<b>Chevron #21125</b>	3	Job Number:	385867		
Site Address:	930 Springtown	Blvd.	Event Date:	8.22.	LZ (ii	nclusive)
City:	Livermore, CA		Sampler:	FT		•
Well ID	MW- 9		Data Manitana di	0 11	1.0	
Well Diameter	4	_	Date Monitored:	8.21	/ L	_
			Volume 3/4"= 0.03 Factor (VF) 4"= 0.6		= 0.17 3"= 0.38 = 1.50 12"= 5.80	
Total Depth	14.47 ft.				= 1.50 12"= 5.80	
Depth to Water	13.45 ft. 1.02 xVF	hamment .	olumn is less then 0.50 x3 case volume =		olumo: 2 A a	al.
Depth to Water	w/ 80% Recharge [(Hei		•			
Purge Equipment:	/	Sampling Equipm		Time Started Time Comple		_(2400 hrs) _(2400 hrs)
Disposable Bailer		Sampling Equipm	nent:	Depth to Prod		( <b>_</b> .00 /#6/
Stainless Steel Baile		Disposable Bailer		Depth to Wat		ft
Stack Pump	<u> </u>	Pressure Bailer Metal Filters		Hydrocarbon	Thickness:	ft
Suction Pump	<del></del>	Peristaltic Pump		Visual Confir	mation/Description:	
Grundfos		QED Bladder Pum	n	/		
Peristaltic Pump		Other:	,		sorbant Sock (circle of	
QED Bladder Pump		O. 101.			d from Skimmer: d from Well:	
Other:					/ed:	
					-	
Start Time (purg	le): 1200	\/\eathe	r Conditions:	Sunt		
	ate: 1230 / 8.2			SUNU Odor: Ø/N		
			color: <u>Gry.</u>	-	STRONL	
Approx. Flow Ra			nt Description:	5. 51		
Did well de-wate	er? No If yes,	Time:\	Volume:	gal. DTW @ Sa	ampling: 13.4	7-5
Time	Volume (gal.) pi	Conductivity		D.O.	ORP	
(2400 hr.)	voidino (gai.)	(µmhos/cm -	( <b>©</b> / F)	(mg/L)	(mV)	
1204	<u>.75</u> 7.1	7 780	20-1	PRE:  .5	PRE: -   8	
1208	_ <u> </u>	5 785	19.9			
1212	2.0 7.1	<u> 789</u>	19.7			
***************************************				POST: 1.4	POST: ~ 3 4	
		LABORATOR	RY INFORMATION	······································		
SAMPLE ID	<del>  `` ,                                 </del>	FRIG. PRESERV. T			ANALYSES	
MW-9		ES HCL	LANCASTER	TPH-GRO(8015)/E	STEX(8260)	
		ES HCL	LANCASTER	METHANE (8015)		
		ES HCL	LANCASTER	FERROUS IRON (		
	2 x voa vial Y	'ES NP	LANCASTER	NITRATE/SULFAT	E (EPA 300.0)	
						<del></del>
_						
COMMENTS:						
					<del>-</del>	
Add/Replaced	Lock.	Add/Replaced Plu	ıa.	Add/Replaced	Rolt:	



Site Address   Sampler	Client/Facility#:	Chevron #211253		Job Number:	385867		
City:   Livermore, CA   Sampler:   FT	Site Address:	930 Springtown E	Blvd.	Event Date:	8 · 2	2.12	- (inclusive)
Volume	City:	Livermore, CA		Sampler:			-`
Total Depth				Date Monitored:	8.7	12.12	-
Depth to Water   13.03		•			2 1"= 0.04 2	"= 0.17 3"= 0.38	
13.41   xVF	•		_			= 1.50 12"= 5.80	
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.11  Purge Equipment: Disposable Bailer Disposable Bailer Stainless Steel Bailer Stack Pump Metal Fillers Sucdon Pump Grundfos QED Bladder Pump Other:  Start Time (purge):  Start Start Purge Start Purge Start	Depth to Water						
Purge Equipment:   Sampling Equipment:   Disposable Bailer		13.41_xVF_	<u>.leb = 8.85</u>	x3 case volume =	Estimated Purge V	olume: 27-0	_ gal.
Purge Equipment:   Sampling Equipment:   Disposable Bailer	Depth to Water	w/ 80% Recharge [(Heigh	t of Water Column x 0.20)	+ DTW]: 15.71			
Disposable Bailer					li e		
Depth to Water:  Stainless Steel Bailer Stack Pump Suction Pump Peristatic Pump Officer:  Start Time (purge):  Sta					•		
Stack Pump			•	<del></del>	<b>I</b> '		
Suction Pump		er <u> </u>			H .		
Skimmer / Absorbant Sock (circle one)	•				Visual Confir	mation/Description:	
Other:	•	<del></del>			ļ		
Start Time (purge):   130			•				
Start Time (purge):   1130	· · · · · · · · · · · · · · · · · · ·						
Sample Time   Date:   1.5   gpm.   Sediment Description:   NONE	Other:						
Sample Time   Date:   1.5   gpm.   Sediment Description:   None							
Time (2400 hr.)   Volume (gal.)   pH   Conductivity (µmhos/cm - 6)   Temperature (C / F ) (mg/L) (mV)	Sample Time/Da Approx. Flow Ra	ate: 1245 / 8 · 22 ate: 1.5 gpm.	Water Color Sediment D	escription:	_Odor: Ø/N ドロ	NE SLIVE	
136   9.0   7.20   696   19.2   PRE: 1.7   PRE: 64		Volume (gal.) pH	Conductivity			ORP	
LABORATORY INFORMATION  SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 0		90 71					
SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 0	11 79			17.7	PRE: 1. 1	PRE: UP	
SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW- 0		<del>-</del>			2007 1 6		
SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-   O					POST: [.6	POST: SS	
SAMPLE ID (#) CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-   O			I ARODATORY II	NEODMATION	·		
MW- 0	SAMPLE ID	(#) CONTAINER   REFF			1	ANALYSES	
x 250ml amber YES HCL LANCASTER FERROUS IRON (SM20 3500 Fe B)  x voa vial YES NP LANCASTER NITRATE/SULFATE (EPA 300.0)		<del>                                     </del>			TPH-GRO(8015)/		
2 x voa vial YES NP LANCASTER NITRATE/SULFATE (EPA 300.0)		<del></del>					
						·	
COMMENTS:		x voa vial YE	S NP	LANCASTER	NITRATE/SULFA	TE (EPA 300.0)	
COMMENTS:					<del>                                     </del>		
COMMENTS:					<u> </u>		
COMMENTS:							
COMMENTS:						-	
	COMMENTS:					<del>_</del>	
Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:	Add/Danlas - d	l aate	A d d (D = -1 = -1 D)		A 11/5		



Client/Facility#:	Chevron #21	1253		Job Number:	385867		
Site Address:	930 Springto	wn Blvd	l.	Event Date:	8.22.	12	· (inclusive)
City:	Livermore, C	Α		_ Sampler:	ML		· `
· · · · · · · · · · · · · · · · · · ·	1.1						
Well ID	MW- [ (	_		Date Monitored:	8.22-	17	_
Well Diameter	4	_	Volu	ume 3/4"= 0.0	2 1"= 0.04	2"= 0.17 3"= 0.38	
Total Depth	14,62 ft.	_	Fac	tor (VF) 4"= 0.6		"= 1.50 12"= 5.80	
Depth to Water	13.50 ft.			ımn is less then 0.5			
	1.12			_ x3 case volume =		/olume: <b>2</b> . [	_ gal.
Depth to Water	w/ 80% Recharge	(Height of V	Vater Column x 0.20	)) + DTW]: <u>13.71</u>	2		
B 5 1 1		_			Time Starte	d: leted:	
Purge Equipment:			ampling Equipmen	ıt:		oduct:	
Disposable Bailer			isposable Bailer			ater:	
Stainless Steel Baile			ressure Bailer			n Thickness:	ft
Stack Pump			letal Filters			rmation/Description:	
Suction Pump			eristaltic Pump				
Grundfos Peristaltic Pump			ED Bladder Pump			bsorbant Sock (circle	
QED Bladder Pump		U	ther:			ed from Skimmer:	
						ed from Well:	
Other:					Water Remo	oved:	
Approx. Flow Ra Did well de-wate  Time (2400 hr.) 17,35		gpm. yes, Time: 7,12 7,08 7,09	Conductivity (upphosion us)	lume:	gal. DTW @ S  D.O. (mg/L)  PRE: 1.7	ORP (mV) PRE: -72	61
			LABORATORY	INFORMATION			
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYP			ANALYSES	
MW- //	🔑 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/		
	2 x voa vial	YES	HCL	LANCASTER	METHANE (8015	<u></u>	
	/ x 250ml amber	YES	HCL	LANCASTER		(SM20 3500 Fe B)	
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFA	TE (EPA 300.0)	
				<del>-  </del>	<del> </del>		
				<del></del>			
				<del> </del>	<del></del>		
COMMENTS:	Slow R	CCOVE 8	Y				
						9	
Add/Replaced i	Lock:	Add/	Replaced Plug:		Add/Replaced	Bolt:	



Client/Facility#:	Chevron #21	1253		Job Number:	385867		
Site Address:	930 Springto	wn Blvd		Event Date:	8-27.1	7	(inclusive)
City:	Livermore, C					<u> </u>	(moldolve)
Oity.	Liverinore, C	<u> </u>		Sampler:	ML		
Well ID	MW-12		· · · · · · · · · · · · · · · · · · ·	Date Monitored:	8-72-17	)	
Well Diameter	4	_		Date Monitored.	0.00.11	<u> </u>	
		<u>-</u>		/olume 3/4"= 0.0		2"= 0.17 3"= 0.38	
Total Depth	16.68 ft.		L	Factor (VF) 4"= 0.6		"= 1.50 12"= 5.80	
Depth to Water	13,44 ft.	_ '		olumn is less then 0.5		2.1	
5	13.29			x3 case volume	= Estimated Purge \	/olume: L(e i	gal.
Depth to Water	w/ 80% Recharge	(Height of V	Vater Column x 0	.20) + DTW]: <u>/6, 08</u>	Time Starte	d:	(2400 brs)
Purge Equipment:		c	amalina Eavina			eted:	
Disposable Bailer			ampling Equipm	ient:		oduct:	
Stainless Steel Baile			isposable Bailer	(3%)		ater:	
			ressure Bailer		ii ii	n Thickness:	
Stack Pump			letal Filters			mation/Description:	1
Suction Pump			eristaltic Pump		<u> </u>		
Grundfos			ED Bladder Pum			bsorbant Sock (circle	
Peristaltic Pump		U	ther:			ed from Skimmer:	
QED Bladder Pump						ed from Well:	
Other:					Water Remo	oved:	
Sample Time/Da Approx. Flow Ra Did well de-wate  Time (2400 hr.) (329 1333	ite:	9pm. yes, Time:  pH  7.83  7.77  7.76	Sedimer	olor: Cloup?  Int Description:  /olume:  Temperature  Pr (©/ F)  2 2 - 9  ZZ - 9	gal. DTW @ S  D.O. (mg/L)  PRE: \.7	ORP (mV) PRE: -170	
			AROPATOR	Y INFORMATION			
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. T		7	ANALYSES	
MW- (2	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)		
	Z x voa vial		HCL	LANCASTER	METHANE (8015		
	/ x 250ml amber	YES	HCL	LANCASTER		(SM20 3500 Fe B)	
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFA	TE (EPA 300.0)	
	·-		<u> </u>	-			
	_			-		<del></del>	
	· · · · · · · · · · · · · · · · · · ·						
					1		
COMMENTS:							
		-					
Add/Replaced	Lock:	Add/	Replaced Plu	g:	Add/Replaced	Bolt:	



Client/Facility#:	Chevron #21	1253		Job Number:	385867		
Site Address:	930 Springto	wn Blvd		Event Date:	8-22-1	2	- (inclusive)
	<u> </u>				0 0 0		- (Inclusive)
City:	Livermore, C	<u>A</u>		Sampler:	ML		-
Well ID	MW-13			Date Monitored:	8-22-	12	
Well Diameter	4		Volum	e 3/4"= 0.0	3 41-0.04 3	-047 21-020	-
Total Depth	36,65 ft.		Factor			'= 0.17 3"= 0.38 = 1.50 12"= 5.80	
Depth to Water	13.19 ft.	Пісн	—— neck if water colum	n is less then 0.50	) ft		
			6 = 15.4		Estimated Purge V	olume: 46, 2	r nal
Depth to Water	w/ 80% Recharge		<del></del>	- C4		olume	_ yaı.
		[(···o·g····			Time Started	:	
Purge Equipment:		Sa	mpling Equipment:			eted:	
Disposable Bailer		Dis	posable Bailer	X		duct:	
Stainless Steel Baile	er	Pre	essure Bailer			ter:	
Stack Pump		Me	tal Filters		II -	Thickness: mation/Description:	
Suction Pump		Per	ristaltic Pump		Visual Collin	mation/Description.	
Grundfos	****	QE	D Bladder Pump		Skimmer / Al	sorbant Sock (circl	e one)
Peristaltic Pump		Oth	ner:			d from Skimmer:	
QED Bladder Pump						d from Well:	gal
Other:					Water Remo	ved:	
Approx. Flow Ra Did well de-wate  Time (2400 hr.)  1475  7430  1436		gpm.	Water Color Sediment De Volui Conductivity (µmhos/cm-µs) /, 75	escription:	Light	ORP (mV) PRE: - 7 2	
					P031: 1 · /	FUST: P ( , C	•
			ABORATORY IN				
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	TPU OBO (2015)	ANALYSES	
MW- /3	x voa vial x voa vial	YES YES	HCL HCL	LANCASTER	TPH-GRO(8015)/I METHANE (8015)		
	x 250ml amber	YES	HCL	LANCASTER LANCASTER	FERROUS IRON		
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFAT		
				<del> </del>			
COMMENTS:				1			
Add/Replaced	Lock:	Add/F	Replaced Plug: _		Add/Replaced	Bolt:	



Client/Facility#: Site Address: City:	Chevron #211253 930 Springtown E Livermore, CA	<del> </del>	Job Number: Event Date: Sampler:	385867 8-22-12 (inc	lusive)
Well ID Well Diameter Total Depth Depth to Water	MW- /4 4 /4.4/ ft. 10.78 ft. 3.63 xVF	Check if water of		6 5"= 1.02 6"= 1.50 12"= 5.80  Oft.  Estimated Purge Volume: 6 9 gal.	
Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Suction Pump Grundfos Peristaltic Pump QED Bladder Pump Other:		Sampling Equipm Disposable Bailer Pressure Bailer Metal Filters Peristaltic Pump QED Bladder Pum Other:	nent:	Time Started:(2	ft ft gal
Start Time (purgo Sample Time/Da Approx. Flow Ra Did well de-wate (2400 hr.)	ate: <u>/2/5 / 8 - 7</u> ate:gpm.	Water Conductivity	color: GRAY  nt Description:  Volume:  Temperature	Odor: QIN VERY STORM Odor: QIN VERY STORM ORP (mg/L) (mV)  PRE: 1, 0 PRE: 122  POST: 0.9 POST: -116	RONG
SAMPLE ID  MW-/U/  COMMENTS:  Add/Replaced	(#) CONTAINER REF	RIG.         PRESERV. T           IS         HCL           IS         HCL           IS         HCL	LANCASTER LANCASTER LANCASTER LANCASTER	ANALYSES TPH-GRO(8015)/BTEX(8260) METHANE (8015) FERROUS IRON (SM20 3500 Fe B) NITRATE/SULFATE (EPA 300.0)  Add/Replaced Bolt:	



# SORBENT SOCK EVALUATION FORM

Name: Mike Lombaes Date:	8-22-12	Project Number: Z1(253
Site Address: 930 Springown BIVD, Well I	ID: MW-14	Weather: SUNNY
1) Time absorbent sock removed from w	vell for inspection:	0900
2) Condition of sock:		r.
a) Length of sock showing produc	t saturation:	12"
b) Length of sock showing drynes	s:	26"
c) Color of sock showing product s	saturation:	LIGHT BROWN
d) Weight of the removed sock:		14.37 0Z.
e) Weight of a new/clean/dry sock:		9.080Z.
f) Difference in weight: (D-E) to	0.01 ounces.	5.29 OZ.
3) Picture of sock removed from well take	en: 🗸	
4) Sock removed from well deposited into	a waste drum:	
-Is drum labeled? YES How	w full is drum? (%)	-10%
5) After at least 15 minutes after removing of the well casing. :	the sock from the wel	l, measure (to 0.01ft) from the top
a) Depth to product:	_	
b) Depth to water:	× <u>}</u>	10.78
c) Thickness of product: (b-a)	<b>8</b> 0 8 8	
6) Size and type of sock installed	i - i - i - i - i - i - i - i - i - i -	36" SOAKEASE
7) Comments: AFTER WAITING 3 SOCK REMOVAL, FOUND A		

DISPOSABLE BATCER, NO PRODUCT PRESENT.

MW-14, 211253, 8-22-12 P8:2

5071

BORNEY YE.

Belleville than why he me a personal to the course of an expense of both the

with Millian Challeng and the best of the above the first of the state of the state

real to specify Let



Client/Facility#:	Chevron #21	1253		Job Number:	385867		
Site Address:	930 Springto	wn Blyd		Event Date:	8/22-1	2	- (inclusive)
							_ (IIICidsive)
City:	Livermore, C	A	<del></del>	Sampler:	ML		-
Well ID	MW- 15	<u> </u>		Date Monitored:	8-22-17	7_	
Well Diameter	4	_					<del>-</del>
		-	Volum Factor			"= 0.17 3"= 0.38	
Total Depth	45.90 ft.					= 1.50 12"= 5.80	
Depth to Water	10.87 ft.		Check if water colum	n is less then 0.50 x3 case volume	O ft.	6931	`
Denth to Water	35.03 w/ 80% Recharge	_	<u> </u>		Estimated Purge V	olume:	<b>∠</b> gal.
- opin to victor	oo /o r toonarge	, f(i icigiii oi i	vater Column x 0.20)	DIVI. 1.10	Time Started	l:	(2400 hrs)
Purge Equipment:		s	ampling Equipment:		Time Compl	eted:	(2400 hrs)
Disposable Bailer			isposable Bailer	×		duct:	
Stainless Steel Baile	г		ressure Bailer			ter:	
Stack Pump	<del></del>	M	letal Filters		13	Thickness:	
Suction Pump		Р	eristaltic Pump		Visual Confi	mation/Description	:
Grundfos			ED Bladder Pump		Skimmor / Al	bsorbant Sock (circ	lo ene)
Peristaltic Pump		0	ther:			ed from Skimmer:	,
QED Bladder Pump						ed from Well:	
Other:						ved:	
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate	te: <u>1040 / 8</u> te: <u>3</u>	gpm.	Weather Con Water Color: Sediment De	escription:	SUNN _Odor: Y 1 <b>6</b> 9 <b>100</b> gal. DTW @ S		17
Time		•	Conductivity 5		D.O.	ORP	
(2400 hr.)	Volume (gal.)	pН	(minos/cm=uS)	(C) / F)	(mg/L)	(mV)	
Ima	24	7.21	155	21,4	PRE: 1, 2	PRE: 4/6	
10/10	· <del>ud</del>	7//	1.50	20.7	PRE: ( , C	PRE: / ()	•
1024	· <del>- 73</del>	7.66	1.50	70.5			•
1009	10	1.17		2015	POST: 1 . O	POST: 5 /	
							•
			LABORATORY IN	FORMATION			
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY		ANALYSES	
MW- 15	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/		
	Z x voa vial	YES	HCL	LANCASTER	METHANE (8015)		
	x 250ml amber	YES	HCL	LANCASTER		(SM20 3500 Fe B)	
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFA	TE (EPA 300.0)	
<del> </del>			-		<u> </u>		
			<del></del>		<del> </del>	<del></del>	
				<del> </del>	<del>                                     </del>		
				<b>†</b>		. <del> </del>	
COMMENTS:	d			<u> </u>			
COMMENTS.					<del></del>		



Client/Facility#:	Chevron #21	1253		Job Number:	385867		
Site Address:	930 Springto	wn Blvd		Event Date:	8-22	-17	- (inclusive)
			· · · · · · · · · · · · · · · · · · ·		0.00		- (IIICiusive)
City:	Livermore, C	A		Sampler:		-	-
Well ID	MW- / 72	1	D	ate Monitored:	8-22	.12	
Well Diameter	4	-	Γ				·
Total Depth	79.19 ft.	-	Volume   Factor			"= 0.17 3"= 0.38 = 1.50 12"= 5.80	
Depth to Water	11.08 ft.	. <sub>—</sub>	heck if water column			1.00 12 - 0.00	
Deptil to vvater	18-11		6 = 11.9			357	
Denth to Water	w/ 80% Recharge					olume: JJ · /	_ gal.
Deptil to vvater	w/ 60 % Recharge	(Height of vv	rater Column x 0.20) +	DIW]:	Time Started	l:	(2400 hrs)
Purge Equipment:		Sa	ampling Equipment:			eted:	
Disposable Bailer			sposable Bailer	$\times$	Depth to Pro	duct:	ft
Stainless Steel Baile	er		essure Bailer		Depth to Wa	ter:	ft
Stack Pump	X	Me	etal Filters			Thickness:	
Suction Pump		Pe	eristaltic Pump		Visual Confir	mation/Description:	
Grundfos		QE	ED Bladder Pump	-	Skimmer / Al	osorbant Sock (circle	e one)
Peristaltic Pump		Ot	her:		II .	d from Skimmer:	,
QED Bladder Pump						d from Well:	
Other:					Water Remo	ved:	
Start Time (purge	e): /52 S		Weather Con	ditions:	Sunt		<u>-</u>
•	ate: 1600 18	2-72.12			Odor: Y / 🐿		
			TTALC: COICE.				
Approx Flow Ra	te: Z						
Approx. Flow Ra		gpm.	Sediment De	scription:	ione		142
	ate: Z or? 10 If	gpm.	Sediment De	scription:			1,42
	er? 10 If	gpm. yes, Time:	Sediment De	scription:	ione		1,42
Did well de-wate		gpm.	Sediment De	re: Temperature	gal. DTW @ S	ampling:	1,42
Did well de-wate	er? 10 If	gpm. yes, Time:	Sediment De	scription:	gal. DTW @ S	ORP (mV)	1,42
Did well de-wate	er? 10 If	gpm. yes, Time:	Sediment De	re: Temperature	gal. DTW @ Si	ampling:	1,42
Did well de-wate	er? 10 If	gpm. yes, Time:	Sediment De	re: Temperature	gal. DTW @ Si	ORP (mV)	1,42
Did well de-wate	er? 10 If	gpm. yes, Time:	Sediment De	re: Temperature	gal. DTW @ Si	ORP (mV)	1,42
Did well de-wate	er? 10 If	gpm. yes, Time:	Sediment De	re: Temperature	gal. DTW @ Si D.O. (mg/L) PRE:	ORP (mV) PRE: 27	1,42
Did well de-wate  Time (2400 hr.)  /53/  1537  /543	Volume (gal.) 17 29 34	gpm. yes, Time:  pH 7,08 7,08 7,03	Sediment Des Volun  Conductivity (M)  (uministerin us)  1.27  1.27  1.22  ABORATORY IN	Temperature (0 / F) 24/ 23.4	gal. DTW @ Si D.O. (mg/L) PRE:	ORP (mV) PRE: 27	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7  2 9  3 4  (#) CONTAINER	gpm. yes, Time:  pH 7,08 7,03 7,03 L REFRIG.	Sediment Description  Conductivity (M)  (printes/eni us)  / 2 / / 2 Z  ABORATORY IN PRESERV. TYPE	Temperature (Ø / F ) Z 4 / Z 3 · 1 Z 3 · 2  FORMATION LABORATORY	gal. DTW @ S	ORP (mV) PRE: 27 POST: 23	1,42
Did well de-wate  Time (2400 hr.)  /53/  1537  /543	Volume (gal.)  1 7 2 9 3 4 3 4 4 CONTAINER  x voa vial	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES	Sediment Description  Conductivity (M)  (uminas/eni us)  / 27  / 2 2  ABORATORY IN  PRESERV. TYPE  HCL	Temperature (Ø / F ) Z 4 / Z 3 · 4 Z 3 · 2  FORMATION LABORATORY LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES	Sediment Des Volun  Conductivity (A)  (Aminas/em us)  1.27  1.24  1,22  ABORATORY IN  PRESERV. TYPE  HCL  HCL	Temperature (0 / F) Z 4 / Z 3 · Y Z 3 · Z  FORMATION LABORATORY LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1 (  POST: 1 (  TPH-GRO(8015)/I METHANE (8015)	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES	Sediment Des Volun  Conductivity (A)  (Aminas/em us)  1.27  1.24  1,22  ABORATORY IN  PRESERV. TYPE  HCL  HCL	Temperature (0 / F) Z 4 / Z 3 · Y Z 3 · Z  FORMATION LABORATORY LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1 (  POST: 1 (  TPH-GRO(8015)/I METHANE (8015)	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Time (2400 hr.)  /53/ /543  SAMPLE ID MW-/ &	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Did well de-water  Time (2400 hr.)  /53/  /543  SAMPLE ID	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Time (2400 hr.)  /53/ /543  SAMPLE ID MW-/ &	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42
Time (2400 hr.)  /53/ /543  SAMPLE ID MW-/ &	Volume (gal.)  1 7 2 4 3 4 3 4 4 CONTAINER 4 x voa vial 2 x voa vial 1 x 250ml amber	gpm. yes, Time:  pH 7,06 7,07 7,03  REFRIG. YES YES YES	Sediment Des Volun  Conductivity (A)  (printes/en us)  1.27  1.24  1.22  ABORATORY IN  PRESERV. TYPE  HCL  HCL  HCL  HCL	Temperature (0 / F) Z 4 /   Z 3 . 1/ Z 3 . 2  FORMATION LABORATORY LANCASTER LANCASTER LANCASTER	gal. DTW @ S  D.O. (mg/L)  PRE: 1.6  POST: 1.5  TPH-GRO(8015)/I METHANE (8015) FERROUS IRON	ORP (mV) PRE: 2 7 POST: 2 3  ANALYSES BTEX(8260)  (SM20 3500 Fe B)	1,42



Client/Facility#: Site Address:	Chevron #21 930 Springto			Job Number:	385867		- (in al., al., al., al., al., al., al., al.,
	<u>_</u>		•	Event Date:	8.22		(inclusive)
City:	Livermore, C	A		Sampler:	_ FT		-
Well ID Well Diameter	MW- \7	-	Volum		2 1"= 0.04 2	<b>2 - 12</b> "= 0.17 3"= 0.38	1
Total Depth	37.08 ft.		Factor	· ,		'= 1.50 12"= 5.80	
Depth to Water	14.54 ft.		heck if water column			150	
Depth to Water	w/ 80% Recharge	•					_ gal. (2400 hrs)
Purge Equipment:		S	ampling Equipment:	,	Time Compl		(2400 hrs)
Disposable Bailer			isposable Bailer		Depth to Pro		ft
Stainless Steel Baile	er	Pi	ressure Bailer		Depth to Wa		ft
Stack Pump		М	etal Filters		Hydrocarbor		ft
Suction Pump		Pe	eristaltic Pump		Visual Conn	mation/Description:	
Grundfos		Q	ED Bladder Pump		Skimmer / A	bsorbant Sock (circle	e one)
Peristaltic Pump		Of	ther:			ed from Skimmer:	
QED Bladder Pump					Amt Remove	ed from Well:	gal
Other:					Water Remo	ved:	
Start Time (purg			Weather Co		Sun	ام	
Sample Time/Da	ate: <u>                                     </u>	8-22-17	Water Color	CLEAN	_ Odor: Y <i>I </i> 👀		
Approx. Flow Ra		gpm.	Sediment De	escription:	Nor		
Approx. Flow Ra Did well de-wate			Sediment De	escription:	pai. DTW @ S		40
• •	Volume (gal.)			escription:			.40
Did well de-wate	volume (gal.)	yes, Time:	Conductivity	Temperature (© / F )	gal. DTW @ S	ampling: 18	.40
Time (2400 hr.)	volume (gal.)	yes, Time:	Conductivity (µmhos/cm - 45)	Temperature (© / F )	gal. DTW @ S  D.O. (mg/L)	ORP (mV)	.40
Time (2400 hr.)	volume (gal.)	yes, Time:	Conductivity (µmhos/cm - µS)	Temperature (© / F )	gal. DTW @ S  D.O. (mg/L)  PRE: 1.9	ORP (mV) PRE: 94	
Time (2400 hr.)	volume (gal.)	yes, Time:	Conductivity (µmhos/cm - 45)	Temperature (© / F )	gal. DTW @ S  D.O. (mg/L)	ORP (mV)	
Time (2400 hr.)	volume (gal.)	yes, Time: pH 7.35 7.32 7.29	Conductivity (µmhos/cm - 15)	Temperature ( Ø / F ) 19.7 19.9 20.1	gal. DTW @ S  D.O. (mg/L)  PRE: 1.9	ORP (mV) PRE: 94	
Time (2400 hr.)	volume (gal.)	yes, Time: pH 7.35 7.32 7.29	Conductivity (µmhos/cm - 45)	Temperature ( Ø / F ) 19.7 19.9 20.1	gal. DTW @ S  D.O. (mg/L)  PRE: 1.9	ORP (mV) PRE: 94	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  x voa vial	pH 7.35 7.32 7.29 REFRIG. YES	Conductivity (µmhos/cm -15)  591  592  609  ABORATORY IN PRESERV. TYPE  HCL	Temperature (©/F) 19.7 19.9 20.1	gal. DTW @ S  D.O. (mg/L)  PRE: 1.9  POST: 1.7	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  (x voa vial)  2 x voa vial	pH 7. 3.5 7. 32 7. 2.9  REFRIG. YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L)  PRE: 1.9  POST: 1.7  TPH-GRO(8015)/ METHANE (8015)	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  (x voa vial)  2 x voa vial	pH 7. 3.5 7. 32 7. 2.9  REFRIG. YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER	D.O. (mg/L)  PRE: 1.9  POST: 1.7  TPH-GRO(8015)/ METHANE (8015)	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)  LOOL LO12 LO13  SAMPLE ID MW-	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)  LOOL LO12 LO13  SAMPLE ID MW-	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	
Time (2400 hr.)  LOOL LO12 LO13  SAMPLE ID MW-	Volume (gal.)  15.0  30.0  45.0  (#) CONTAINER  ( x voa vial	pH 7. 3.5 7. 3.2 7. 2.9  REFRIG. YES YES YES	Conductivity (µmhos/cm - 15)  591  598  604  ABORATORY IN PRESERV. TYPE  HCL  HCL  HCL	Temperature (C/F) 19.7 19.9 20.1  IFORMATION LABORATORY LANCASTER LANCASTER LANCASTER	post: 1.7  Post: 1.7  Post: 1.7  TPH-GRO(8015)/ METHANE (8015) FERROUS IRON	ORP (mV) PRE: 94 POST: 102 ANALYSES BTEX(8260) (SM20 3500 Fe B)	



Client/Facility#:	Chevron #2112	253		Job Number:	385867	
Site Address:	930 Springtow	n Blvd		Event Date:	8.22.12	— (inclusive)
					0.000	— (IIICiusive)
City:	Livermore, CA			Sampler:	<u> </u>	
Well ID	MW- /8		D	ate Monitored:	8-22-12	
Well Diameter	4					
Total Depth	14,90 ft.		Volume Factor (			-
Depth to Water	12.50 ft.		ـــــــا neck if water column			<u> </u>
Deptil to Water					Estimated Purge Volume: 4, 5	
Donth to Mater	W/ 90% Booksons M	VF	<u> = / · · · · · · · · · · · · · · · · · ·</u>	x3 case volume =	Eatimated Purge Volume: 7/3	gal.
Deptil to water	w/ 80% Recharge [(	Height of VV	ater Column x 0.20) +	DIW]: 1001	Time Started:	(2400 hrs)
Purge Equipment:		Sa	mpling Equipment:		Time Completed:	
Disposable Bailer	$\times$		posable Bailer	X	Depth to Product:	ft
Stainless Steel Baile	er		essure Bailer		Depth to Water:	ft
Stack Pump	·		tal Filters		Hydrocarbon Thickness:	
Suction Pump	-	Pe	ristaltic Pump		Visual Confirmation/Description	n:
Grundfos		QE	D Bladder Pump		Skimmer / Absorbant Sock (cin	cle one)
Peristaltic Pump		Oth	ner:		Amt Removed from Skimmer:	
QED Bladder Pump					Amt Removed from Well:	
Other:					Water Removed:	
Start Time (purge Sample Time/Da Approx. Flow Ra	ate: //25 / 8- ate:g	pm.	Sediment Des	GRAY scription:	SUNNY Odor: &IN <u>STRON</u> Light	(6)
Did well de-wate	r? <b>1/0</b> If ye	es, Time:	Volum	ne:	gal. DTW @ Sampling: 12	.60
Time (2400 hr.)	Volume (gal.)	pН	Conductivity MS		D.O. ORP	
(2400 Hr.)	16		(µmhes/cm-µS)	( Ø / F )	(mg/L) (mV)	•
<u> 1100</u>		1,71	1.85	73.0	PRE: 1.2 PRE: ~ 5	<u>C</u> p
1105	- 3	7.18	1.00	228		_
	9.5	<u>/_/}</u>	1.81	22-8		-
	· ——— —	<del></del> .			POST: \ POST: \	_
	<u> </u>					
SAMPLE ID /	(#) CONTAINER	REFRIG.	ABORATORY IN	LABORATORY	ANALYSES	
MW- /	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)	
1	2 x voa vial	YES	HCL	LANCASTER	METHANE (8015)	
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON (SM20 3500 Fe B)	)
	2 x voa vial	YES	NP	LANCASTER	NITRATE/SULFATE (EPA 300.0)	
<u> </u>						
-						
	<u> </u>					
COMMENTS:						
				-		
Add/Replaced	Lock:	Add/F	Replaced Plug:		Add/Replaced Bolt:	<u> </u>



Client/Facility#:	Chevron #2112	253		Job	Number:	385867			
Site Address:	930 Springtow	n Blvd.		Eve	nt Date:	8.22.	12	(inclusive)	
City:	Livermore, CA			Sam	pler:	FT		_ `	
Well ID	MW- 19			Date M	onitored:	8.21	٠١٢_		
Well Diameter	4		Γ.	Volume	3/4"= 0.02		"= 0.17     3"= 0.38		
Total Depth	14.91 ft.		L	Factor (VF)	4"= 0.66		'= 1.50 12"= 5.80		
Depth to Water	12. 80 ft.		eck if water o			ft. Estimated Purge V	Volume: 4.5	gal.	
Depth to Water	w/ 80% Recharge [(F				_				
Purge Equipment:		Sa	mpling Equipa	nent:			eted:		
Disposable Bailer		Dis	posable Bailer				duct:		
Stainless Steel Baile	er	Pre	essure Bailer			Depth to Wa		ft	
Stack Pump		Me	tal Filters				Thickness:	ft	
Suction Pump		Per	ristaltic Pump			Visual Confil	mation/Desoription	:	
Grundfos		QE	D Bladder Pum	1p		Skimmer / A	bsorbant Sock (circ	le one)	
Peristaltic Pump		Oth	ner:				d from Skimmer:_		
QED Bladder Pump							ed from Well:		
Other:						Water Remo	ved:		
Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	Volume (gal.)	m.		Tem	on:  2	Odor: OIN S. SI  gal. DTW @ S  D.O. (mg/L)  PRE: I.6  POST: 1.7	HODE	90	
			ABOBATOR	N INFORM	MATION			.0	
SAMPLE ID	(#) CONTAINER   F	REFRIG.	ABORATOR PRESERV. T		ORATORY		ANALYSES		
MW- 19	x voa vial	YES	HCL		CASTER	TPH-GRO(8015)/			
	2 x voa vial	YES	HCL			METHANE (8015)			
	x 250ml amber	YES	HCL		CASTER		(SM20 3500 Fe B)		
	2_x voa vial	YES	. NP	LAN	CASTER	NITRATE/SULFA	TE (EPA 300.0)		
	-								
COMMENTS:									
Add/Replaced	Lock:	Add/F	Replaced Plu	10.		Add/Replaced	Bolt:		



Client/Facility#:	<b>Chevron #21125</b>	53	Job Number:	385867		
Site Address:	930 Springtown	Blvd.	Event Date:	8.22.	12	(inclusive)
City:	Livermore, CA		 Sampler:	FT		-` ′
Well ID	MW- 20		Date Monitored:	8.22		
Well Diameter	4	Г	Volume 3/4"= 0.0			
Total Depth	14,94 ft.	1	Volume 3/4"= 0.0 Factor (VF) 4"= 0.6		2"= 0.17	
Depth to Water	10.12 ft.	Check if water of	column is less then 0.50	D ft.		
•	4.82 XVF	National	8 x3 case volume =		/olume: 10.0	gal.
Depth to Water	w/ 80% Recharge [(He					9a
•			,	Time Starte		(2400 hrs)
Purge Equipment:		Sampling Equipr	ment:	it .	eted:	
Disposable Bailer		Disposable Bailer		Depth to Pro		ft
Stainless Steel Baile	er	Pressure Bailer		Depth to Wa	n Thickness:	t
Stack Pump		Metal Filters			rmation/Description:	ft
Suction Pump		Peristaltic Pump		Visual Comi	mation/Description.	•
Grundfos		QED Bladder Pun		Skimmer / A	bsorbant Sock (circ	le one)
Peristaltic Pump		Other:			ed from Skimmer:	
QED Bladder Pump					ed from Well:	gal
Other:				Water Remo	oved:	
Approx. Flow Ra Did well de-wate  Time (2400 hr.)  1345	er? YES If yes	Time: 1356  Conductivity (µmhos/cm-(	y Temperature		ORP (mV)  PRE: — 48  POST: — 2:	·
		LABORATO	DV INFORMATION			<del></del>
SAMPLE ID	(#) CONTAINER RE	FRIG.   PRESERV. 1	RY INFORMATION TYPE LABORATORY	T	ANALYSES	<u> </u>
MW-20	x voa vial	YES HCL	LANCASTER	TPH-GRO(8015)/		
		YES HCL	LANCASTER	METHANE (8015		
		YES HCL	LANCASTER		(SM20 3500 Fe B)	
	2 x voa vial	YES NP	LANCASTER	NITRATE/SULFA	TE (EPA 300.0)	
			<del>-  </del>			
	<del> </del>					
COMMENTS:						
				<del>,</del> .		

### Chevron California Region Analysis Request/Chain of Custody

For Lancaster Laboratories use only



Laboratories  Facility #: SS#211253-OML G-R#385867 Global ID#TO	06001013	353				Г			Ar	nalv	000	Domin	otod					
Facility #:SS#211253-OML	06001013	353	-							idi y	363	neque	Requested					
Facility #: 930 SPRINGTOWN BLVD., LIVERMORE, CA			Matrix					Preservation Co				odes			H = HCI		iosulfate	
CM CRA Chevron PM: Lead Consultant: G-R, inc., 6747 Sierra Court, Suite J; Dub	ATH <del>olin, CA S</del>	Hariu 94568	3	<b>a</b> S	N O			Silica Gel Cleanup								$N = HNO_3$ $S = H_2SO_3$ $\square$ J value re	<b>O</b> = Ot	her
Consultant/Office: Deanna L. Harding (deanna@grinc.co		□ Potable □ NPDES	Containers	□ 8021		Silica G				Fate	KON			☐ Must med		ection limits		
Consultant Prj. Mgr.:  925-551-7555  Consultant Phone #:  Sampler: MKE L. FRANK T.	51-7899 				7	8		D DRO [		ates	Method	Metho	5			8021 MTBE		
Date	Time	Grab	Soil	Water	Oil  Air Total Number	BTEX + MTBE	TPH 8015 MOD GRO	TPH 8015 MOD DRO	8260 full scan	Oxygenates	Total Lead	Dissolved Lead Method	1 1			Confirm a	oxy's on hig	hest hit
Sample Identification Collected C	Collected	O C	<u>3                                    </u>		Ö	i iii	P.	<u></u>	82	+	P	Dis	14.			Comment		
	230	>		X	3							X	×				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	2.45	X	-	X	3	1	Ш		$\perp$	-	4	×	>					
	300 400	X	+	1	_   5	+			-		-	$\rightarrow$				Please forward the lab results directly to the Lead Consultant		
	155	X	+	<del>                                     </del>	-3	+			-	+	-	X	X	+			nd cc: G-R.	
	215	X	+	X	17					$\perp$	+	V	<del>\</del>					
	240	X		9	3							X	X					
	000	4		Y	3	$\perp$						X	$\times$					
- MKI-17	115	-	+-	X	3	╀			_	i i		X	X					
11 19 11 11 11 11 11 11 11 11 11 11 11 1	75	f	+	X	- 5			-	_	+	2		X	-	-			
MW-79 11	130	<del>y -</del>	-	Y	- 5	╁	H	-	$\dashv$		+	-	<del>X</del> -					
Turnaround Time Requested (TAT) (please circle) STD. TAT 72 hour 48 hour	Relinquis	shed by	y:		1			8.2	ate	Tin	ne 730	Recei	ved by:			`	Date	Time
24 hour 4 day 5 day	y:					D	ate	Tin	ne	Recei	ved by:				Date	Time		
Data Package Options (please circle if required)  QC Summary Type ! - Full EDF/EDD	y:					D	ate	Tin	ne	Recei	ved by:				Date	Time		
Type VI (Raw Data) Coelt Deliverable not needed WIP (RWQCB)	FedEx		Carrie Othe							Date	Time							
Disk	Tempera	ture U	pon Re	eceipt_							.C°	Custo	dy Seals	Intact	?	Yes No		

010000

## Chevron California Region Analysis Request/Chain of Custody

Laboratories		A	cct. #	:	For Lancaster Laboratories use only Sample # Group #:														
v. Laboratories	12412-	めつ					Г			A	hal	vses	Regu	ested			7		
SS#211253_OMI_ G-R#38586			353											odes	_				
Facility #:				-	Matrix Prese					erva	L	Preservative Codes  H = HCl T = Thiosulfate							
Site Address:CM				_					1	3		1	1				N = HNO <sub>3</sub>	B = NaC	
Chevron PM: G-R, Inc., 6747 Sierra Cou	Consultant:	RATH	Hari Gazano	u -		П	စ		Closed C								<b>S</b> = H <sub>2</sub> SO <sub>4</sub>		
Consultant/Office: Deanna L. Harding (de	_	Potable NPDES		ine	₽	000								☐ J value repor	_				
Consultant Prj. Mgr.:	annawgnno	.com)			a S		onte	8021	Cilio				Ш				Must meet lo		
Consultant Prj. Mgr.: 925-551-7555  Consultant Phone #:	_ Fax #;	551-7899						N C				8	at v	1			8021 MTBE Co		
Sampler: MIKF L. FRANK T.							per (	BTEX + (1) 1959 8260 TPH 8015 MOD GBO	OBU GOM R MOD DBO		ates	Method	Dissolved Lead Method				☐ Confirm high		260
				Site		Α̈́	E	W C		scan	Oxygenates	ᄝ	ad Lea				Confirm all h		
	Date	Time	Grab	Composite	Water		Total Number	X + X		8260 full scan	0	Total Lead	solver	3			Run ox		
Sample Identification	Collected	Collected	ਲੋਂ	<u>S</u>	8 8	ō	의		Ē	828		to L	Ois 5		4		☐ Run ox		its
QA MW. 9	8.7110	1700	7	+	1	- 4		$\stackrel{X}{\longleftrightarrow}$	+		_	$\vdash$			$\dashv$		Comments /	Remarks	
MW-10		1230		+	1		8	$\bigcirc$					$- \zeta $	+	75				
MW · [1		1300	1/2	+	+	(	8	× /			_		-/			_			
- MW 12		1400		+	+ (-	\ \ \ \ \	9	$\overset{>}{\smile}$		-			/		$\dashv$		Please forward directly to the		
Miv. 13		1455	<del>\</del>	+	10	\ \	8	$\langle \langle \langle \rangle \rangle$	-						-+	_		cc. G-R	
111111111111111111111111111111111111111		1715	8	+	1	ς.	8 -	$\frac{1}{2}$	+	200			-5	1	_	_	-		
MW.15		1040	X	+	ΤŶ	<del>     </del>	8 1	$\frac{x}{x}$	-				$\frac{1}{\lambda}$		+		1		
11W.16		11,00	Y	$\top$	X		8	y 5	/				, ,	7	$\dashv$		1		
MW-17		1115	X	1	X	(	8	> >					X	†	1		1		
MW-18		1125	X		X	· ·	8	XX					X				1		
Mw. 19		1400	X/ :	L	X		8	XX					X						
MW-20		1430	X		1		8	y Y					_ X						
Turnaround Time Requested (TAT) (please cir	cle)	Relinqui	shed b	y:-/					5	Date . 24.1		ime 1730	Rec	eived/by	/:	1		Date 24.4	Time
STD. TAT 72 hour 48 hour 24 hour 4 day 5 day	•	Relinqui	shed b	Vin					€.	Date		ime /	Bece	eived by	<i>J</i> :	2		Data	Time
Tody Suay								al .	-8	24.n	- 13	3300	a		2	ac.	- 24	AUG/2	1335
Data Package Options (please circle if required)										Date	T	ime	Rece	eived by	<b>/</b> :			Date	Time
QC Summary Type I - Full EDF/EDD Relinquished by						I Carri	ior						_						
Type VI (Raw Data) Coelt Deliverable not need	ded	UPS	SII <del>U</del> U D	y Cor FedE			ier: ther_						Hece	eived by	<i>/</i> :			Date	Time
WIP (RWQCB) Disk		Tempera	aturo I						TO						-1				
DISK		rempera	ature C	hou i	-aceibt		-				-	_ C°	Cust	ody Se	ais ir	itact?	Yes No		All I



### TRANSMITTAL

September 11, 2012 G-R #385867

TO:

Ms. Tina Hariu

Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

FROM:

Deanna L. Harding

**Project Coordinator** Gettler-Ryan Inc. 6747 Sierra Court, Suit

Dublin, California 94568

RE: **Former Texaco Service Station** 

930 Springtown Blvd. Livermore, California

(Site #211253)

### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package
	Bi-weekly Absorbent Sock Change Out of
	September 4, 2012

### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans/211253

### **WELL CONDITION STATUS SHEET**

Client/Facility #: Site Address:	930 Spri	ingtown Bi	vd.				Job #: Event Date:	385867	1/1-2		_
City:	Livermo	re, CA					Sampler:	_6	<u> </u>		
WELL ID	Vault Frame Condition	(M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	<b>WELL VAULT</b> Manufacture/Size/ # of Bolts	Pictures Taken Y/N
Mo.14	OK	<u>´</u>					7	~	سر	EMC0/12/2	A
									jil.		
										N	
										=:	
	_						-		1 2		
									1 -		
					<u>:</u> 1				美		
		V									
Comments											



## SORBENT SOCK EVALUATION FORM

Name: G. MEDINA	Date: 9/4/12	Project Number:
Site Address: 930 SPRINGTOWN BUTE LIVERMORE CA	Well ID:	Weather: CLOMBY COLD
1) Time absorbent sock removed to	from well for inspection:	06 10
2) Condition of sock:		
a) Length of sock showing 1	product saturation:	3"
b) Length of sock showing of	dryness:	34"
c) Color of sock showing pr	oduct saturation:	GRA 1015H
d) Weight of the removed so	ock:	12 8 DZ
e) Weight of a new/clean/dry	y sock:	- 9音 02 - 2 2 02
f) Difference in weight: (D	-E) to 0.01 ounces.	2202
3) Picture of sock removed from we	ell taken: 🏏	
4) Sock removed from well deposit	ed into a waste drum:	
-Is drum labeled? Yes	How full is drum? (%)	50%
5) After at least 15 minutes after ren of the well casing. :		
a) Depth to product:		NV
b) Depth to water:		10.82
c) Thickness of product: (b-a	)	<b>Ø</b>
6) Size and type of sock installed		3" SOAKEASE
7) Comments:		



### TRANSMITTAL

September 25, 2012 G-R #385867

TO:

Ms. Tina Hariu

Conestoga-Rovers & Associates 5900 Hollis Street, Suite A Emeryville, CA 94608

FROM:

Deanna L. Harding

**Project Coordinator** 

Gettler-Ryan Inc.

6747 Sierra Court, Suke. Dublin, California 94568 RE:

Former Texaco Service Station

930 Springtown Blvd. Livermore, California

(Site #211253)

### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Bi-weekly Absorbent Sock Change Out of
	September 21, 2012

### **COMMENTS:**

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans/211253

### **WELL CONDITION STATUS SHEET**

Client/Facility #: Site Address: City:		ingtown Bl	vd.			- 1	Job #: Event Date: Sampler:	385867 9-2	1-12		_
WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/N	REPLACE CAP Y/N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/N
MW-14	OV				W 11 = 11		<b>&gt;</b>	10	10	EMCO/12"/2	XOV
									ll v		
		~	i e				Ш				
		13 11									
Comments										V	



## SORBENT SOCK EVALUATION FORM

Name: Mke L. Date: 9-21-12	Project Number: 2((25)
Site Address: 930 Springburn Blud. Well ID: WW - 14	Weather: SUNN 1
1) Time absorbent sock removed from well for inspecti	on: 1030
2) Condition of sock:	
a) Length of sock showing product saturation:	MANE
b) Length of sock showing dryness:	31"
c) Color of sock showing product saturation:	NOWE
d) Weight of the removed sock:	1102.
e) Weight of a new/clean/dry sock:	9 02.
f) Difference in weight: (D-E) to 0.01 ounces.	2,0002.
3) Picture of sock removed from well taken: 4) Sock removed from well deposited into a waste drum:	
-Is drum labeled? Yes How full is drum?	P(%) ~ 50%
After at least 15 minutes after removing the sock from of the well casing. :	the well, measure (to 0.01ft) from the
a) Depth to product:	
b) Depth to water:	10.69
c) Thickness of product: (b-a)	Ø
Size and type of sock installed	36" PIG
Comments: NO PRODUCT PRESENT IN	I WELL

### ATTACHMENT B

LABORATORY ANALYTICAL REPORT



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Chevron L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

September 18, 2012

Project: 211253

Submittal Date: 08/25/2012 Group Number: 1331240 PO Number: 0015093428 Release Number: MACLEOD State of Sample Origin: CA

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
QA-T-120822 NA Water	6767316
MW-9-W-120822 Grab Water	6767317
MW-10-W-120822 Grab Water	6767318
MW-11-W-120822 Grab Water	6767319
MW-12-W-120822 Grab Water	6767320
MW-13-W-120822 Grab Water	6767321
MW-14-W-120822 Grab Water	6767322
MW-15-W-120822 Grab Water	6767323
MW-16-W-120822 Grab Water	6767324
MW-17-W-120822 Grab Water	6767325
MW-18-W-120822 Grab Water	6767326
MW-19-W-120822 Grab Water	6767327
MW-20-W-120822 Grab Water	6767328

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC	Chevron	Attn: Anna Avina
COPY TO ELECTRONIC	Conestoga-Rovers & Associates	Attn: Tina Hariu



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COPY TO

Respectfully Submitted,

Jill M. Parker Senior Specialist

(717) 556-7262



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Sample Description: QA-T-120822 NA Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 QA

LLI Sample # WW 6767316 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 Chevron

L4310

Submitted: 08/25/2012 10:05 6001 Bollinger Canyon Rd.

Reported: 09/18/2012 13:27 San Ramon CA 94583

### SPLQA

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122411AA	08/28/2012 09:1	2 Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122411AA	08/28/2012 09:1	2 Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012 11:0	3 Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012 11:0	3 Marie D John	1



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Sample Description: MW-9-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-9

LLI Sample # WW 6767317 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 12:30

by ML Chevron

L4310

Submitted: 08/25/2012 10:05 Reported: 09/18/2012 13:27 6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL09

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	5	10
10943	Ethylbenzene		100-41-4	8	5	10
10943	Toluene		108-88-3	N.D.	5	10
10943	Xylene (Total)		1330-20-7	7	5	10
GC Vo	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	1,300	50	1
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	2,900	100	20

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122411AA	08/28/2012	11:02	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122411AA	08/28/2012	11:02	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	12:19	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	12:19	Marie D John	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B	1	122480021A	09/05/2012	08:59	Elizabeth J Marin	20



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Sample Description: MW-10-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-10

LLI Sample # WW 6767318 LLI Group # 1331240

Account # 10904

Project Name: 211253

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

Collected: 08/22/2012 12:45 by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL10

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	2	0.5	1
10943	Ethylbenzene		100-41-4	2	0.5	1
10943	Toluene		108-88-3	0.7	0.5	1
10943	Xylene (Total)		1330-20-7	2	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	600	50	1
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	670	50	10

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122411AA	08/28/2012	11:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122411AA	08/28/2012	11:24	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	12:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	12:44	Marie D John	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	09:18	Elizabeth J Marin	10



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Sample Description: MW-11-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-11

LLI Sample # WW 6767319 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 13:00 by ML

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

### SPL11

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	.atiles TPH-GRO N. CA water	<b>SW-846</b> C6-C12	8015B	<b>ug/l</b> 510	<b>ug/1</b> 50	1
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	760	50	10

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122411AA	08/28/2012	11:46	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122411AA	08/28/2012	11:46	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	13:09	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	13:09	Marie D John	1
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	09:36	Elizabeth J Marin	10



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Sample Description: MW-12-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-12

LLI Sample # WW 6767320 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:00

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### SPL12

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	5	10
10943	Ethylbenzene		100-41-4	120	5	10
10943	Toluene		108-88-3	12	5	10
10943	Xylene (Total)		1330-20-7	160	5	10
	.atiles TPH-GRO N. CA water	<b>SW-846</b> C6-C12	8015B	<b>ug/1</b> 8,500	<b>ug/l</b> 250	5
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	2,000	100	20

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122411AA	08/28/2012	12:07	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122411AA	08/28/2012	12:07	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	16:57	Catherine J Schwarz	5
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	16:57	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	09:54	Elizabeth J Marin	20



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Sample Description: MW-13-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-13

LLI Sample # WW 6767321 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:55 by ML

Submitted: 08/25/2012 10:05

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583 Reported: 09/18/2012 13:27

SPL13

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	2,000	50	100
10943	Ethylbenzene		100-41-4	340	50	100
10943	Toluene		108-88-3	5,600	50	100
10943	Xylene (Total)		1330-20-7	4,500	50	100
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	35,000	1,300	25
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	8,500	250	50

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	09:37	Anita M Dale	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	09:37	Anita M Dale	100
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	17:22	Catherine J Schwarz	25
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	17:22	Catherine J Schwarz	25
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	10:12	Elizabeth J Marin	50



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Sample Description: MW-14-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-14

LLI Sample # WW 6767322

LLI Group # 1331240 Account # 10904

Project Name: 211253

Collected: 08/22/2012 12:15 by ML

Chevron

L4310

Submitted: 08/25/2012 10:05 Reported: 09/18/2012 13:27 6001 Bollinger Canyon Rd.

San Ramon CA 94583

#### SPL14

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	890	5	10
10943	Ethylbenzene		100-41-4	600	5	10
10943	Toluene		108-88-3	990	5	10
10943	Xylene (Total)		1330-20-7	2,600	5	10
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	22,000	250	5
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	1,200	100	20

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	09:59	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	09:59	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	17:47	Catherine J Schwarz	5
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	17:47	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	10:31	Elizabeth J Marin	20



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Sample Description: MW-15-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-15

LLI Sample # WW 6767323

LLI Group # 1331240 Account # 10904

Project Name: 211253

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

Collected: 08/22/2012 10:40 by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL15

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	N.D.	5.0	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe.	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	08:11	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	08:11	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	13:35	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	13:35	Marie D John	1
07105	Volatile Headspace	SW-846 8015B	1	122480021A	09/05/2012	03:07	Elizabeth J Marin	1



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Sample Description: MW-16-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-16

LLI Sample # WW 6767324 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 16:00 by ML

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL16

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
GC Mis	cellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	1,000	100	20

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	10:21	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	10:21	Anita M Dale	1
01728		SW-846 8015B	1	12241A07A	08/29/2012	14:00	Marie D John	1
	C12							
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	14:00	Marie D John	1
07105	Volatile Headspace	SW-846 8015B	1	122480021A	09/05/2012	10:49	Elizabeth J Marin	20



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Sample Description: MW-17-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-17

LLI Sample # WW 6767325 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 11:15 by ML

IL Chevron

L4310

Submitted: 08/25/2012 10:05 Reported: 09/18/2012 13:27 6001 Bollinger Canyon Rd.

San Ramon CA 94583

### SPL17

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	N.D.	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	N.D.	0.5	1
GC Vol	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	1
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	25	5.0	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	10:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	10:43	Anita M Dale	1
01728	TPH-GRO N. CA water C6-	SW-846 8015B	1	12241A07A	08/29/2012	14:25	Marie D John	1
	C12							
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	14:25	Marie D John	1
07105	Volatile Headspace	SW-846 8015B	1	122480021A	09/05/2012	03:49	Elizabeth J Marin	1



Account

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Sample Description: MW-18-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-18

LLI Sample # WW 6767326 LLI Group # 1331240

# 10904

Project Name: 211253

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

Collected: 08/22/2012 11:25 by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL18

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	80	5	10
10943	Ethylbenzene		100-41-4	170	5	10
10943	Toluene		108-88-3	310	5	10
10943	Xylene (Total)		1330-20-7	550	5	10
GC Vol	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	3,600	250	5
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	240	5.0	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	11:05	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	11:05	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	18:12	Catherine J Schwarz	5
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	18:12	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	04:07	Elizabeth J Marin	1



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Page 1 of 1

Sample Description: MW-19-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-19

LLI Sample # WW 6767327 LLI Group # 1331240

Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:00 by ML

Chevron L4310

Submitted: 08/25/2012 10:05

Reported: 09/18/2012 13:27

6001 Bollinger Canyon Rd.

San Ramon CA 94583

SPL19

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	0.5	1
10943	Ethylbenzene		100-41-4	17	0.5	1
10943	Toluene		108-88-3	N.D.	0.5	1
10943	Xylene (Total)		1330-20-7	2	0.5	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	1,300	250	5
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	1,900	50	10

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	11:27	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	11:27	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	18:38	Catherine J Schwarz	5
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	18:38	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	13:54	Elizabeth J Marin	10



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Page 1 of 1

Sample Description: MW-20-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-20

LLI Sample # WW 6767328

LLI Group # 1331240 Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:30 by ML

IL Chevron

L4310

Submitted: 08/25/2012 10:05 6001 Bollinger Canyon Rd.

Reported: 09/18/2012 13:27 San Ramon CA 94583

### SPL20

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	
10943	Benzene		71-43-2	N.D.	5	10
10943	Ethylbenzene		100-41-4	120	5	10
10943	Toluene		108-88-3	42	5	10
10943	Xylene (Total)		1330-20-7	320	5	10
GC Vol	atiles	SW-846	8015B	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	4,800	250	5
GC Mis	scellaneous	SW-846	8015B modified	ug/l	ug/l	
07105	Methane		74-82-8	37	5.0	1

#### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	F122421AA	08/29/2012	11:48	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F122421AA	08/29/2012	11:48	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12241A07A	08/29/2012	19:03	Catherine J Schwarz	5
01146	GC VOA Water Prep	SW-846 5030B	1	12241A07A	08/29/2012	19:03	Catherine J Schwarz	5
07105	Volatile Headspace Hydrocarbon	SW-846 8015B modified	1	122480021A	09/05/2012	05:03	Elizabeth J Marin	1



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### Quality Control Summary

Client Name: Chevron Group Number: 1331240

Reported: 09/18/12 at 01:27 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: F122411AA	Sample numbe	er(s): 676	57316-6767	320				
Benzene	N.D.	0.5	ug/l	90		77-121		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Toluene	N.D.	0.5	ug/l	93		79-120		
Xylene (Total)	N.D.	0.5	ug/l	92		77-120		
Batch number: F122421AA Benzene Ethylbenzene Toluene Xylene (Total)	Sample number N.D. N.D. N.D. N.D. N.D.	er(s): 676 0.5 0.5 0.5 0.5	57321-6767 ug/l ug/l ug/l ug/l	328 90 92 92 92		77-121 79-120 79-120 77-120		
Batch number: 12241A07A	Sample numbe	er(s): 676	7316-6767	328				
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	116	115	75-135	0	30
Batch number: 122480021A Methane	Sample numbe	er(s): 676 5.0	57317-6767 ug/l	328 95		80-120		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD <u>%REC</u>	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: F122411AA Benzene Ethylbenzene Toluene Xylene (Total)	Sample 102 100 102 101	number(s) 102 101 103 101	: 6767316 72-134 71-134 80-125 79-125	-676732 0 2 1 1	30 30 30 30 30 30	K: P767566			
Batch number: F122421AA Benzene Ethylbenzene Toluene Xylene (Total)	Sample 96 95 97	number(s) 97 97 99 98	: 6767321 72-134 71-134 80-125 79-125	-676732 0 2 2 1	30 30 30 30 30 30	K: 6767323			
Batch number: 122480021A Methane	Sample	number(s) 82	: 6767317 35-157	-676732 10	28 UNSP 20	K: P766733			

### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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Page 2 of 3

### Quality Control Summary

Client Name: Chevron Group Number: 1331240

Reported: 09/18/12 at 01:27 PM

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water

Batch number: F122411AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene	
6767316	99	97	101	96	
6767317	98	97	101	98	
6767318	98	98	101	101	
6767319	98	97	99	99	
6767320	98	96	102	99	
Blank	99	97	100	97	
LCS	99	100	99	98	
MS	99	99	99	99	
MSD	96	98	97	97	
Limits:	80-116	77-113	80-113	78-113	

Analysis Name: UST VOCs by 8260B - Water

	n number: F122421AA Dibromofluoromethane 1,2-Dichloroethane-d4 Toluene-d8 4-Bromofluorobenzene		4-Bromofluorobenzene		
6767321	101	98	99	97	
6767322	97	97	99	96	
6767323	99	97	100	95	
6767324	98	98	98	95	
6767325	99	99	99	95	
6767326	98	98	100	98	
6767327	98	96	100	99	
6767328	99	97	100	97	
Blank	99	99	99	95	
LCS	99	99	98	97	
MS	99	101	99	99	
MSD	98	99	100	99	
Limits:	80-116	77-113	80-113	78-113	

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 12241A07A

Trifluorotoluene-F

91
110
108
97
111
97
109
89
87
90
92
93
98
85

- \*- Outside of specification
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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### Quality Control Summary

Client Name: Chevron Group Number: 1331240

Reported: 09/18/12 at 01:27 PM

Surrogate Quality Control

LCS 104 LCSD 105

Limits: 63-135

Analysis Name: Volatile Headspace Hydrocarbon

Batch number: 122480021A

Propene

6767317	96
6767318	89
6767319	83
6767321	97
6767321	95
6767322	94
6767323	75
6767324	103
6767325	31*
6767325	83
6767327	80
6767328	86

Limits: 42-131

### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# Chevron California Region Analysis Request/Chain of Custody

Received by:

Received by:

Custody Seals intact?

Date

Time

C°

43	La	ncaster
	La	boratories

Data Package Options (please circle if required)

Type I - Full

☐ Coelt Deliverable not needed

QC Summary

WIP (RWQCB)

Disk

Type VI (Raw Data)

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Other.

116-42

Relinquished by:

Relinquished by Commercial Carner:

Feptex

Temperature Upon Receipt

**EDF/EDD** 

4804.01 (north) Rev. 10/12/06

Date

Date

ansh

No

Time

Time

1000



### **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

**C** – result confirmed by reanalysis.

**J** - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

### Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

Chevron L4310 6001 Bollinger Canyon Rd. San Ramon CA 94583

September 18, 2012

Project: 211253

Submittal Date: 08/23/2012 Group Number: 1330707 PO Number: 0015093428 Release Number: MACLEOD State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-9-W-120822 Grab Water	6764465
MW-10-W-120822 Grab Water	6764466
MW-11-W-120822 Grab Water	6764467
MW-12-W-120822 Grab Water	6764468
MW-13-W-120822 Grab Water	6764469
MW-14-W-120822 Grab Water	6764470
MW-15-W-120822 Grab Water	6764471
MW-16-W-120822 Grab Water	6764472
MW-17-W-120822 Grab Water	6764473
MW-18-W-120822 Grab Water	6764474
MW-19-W-120822 Grab Water	6764475
MW-20-W-120822 Grab Water	6764476

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC	Chevron c/o CRA	Attn: Report Contact
COPY TO ELECTRONIC	Chevron	Attn: Anna Avina
COPY TO ELECTRONIC COPY TO	Conestoga-Rovers & Associates	Attn: Tina Hariu



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Respectfully Submitted,

fill M. Parker
Senior Specialist

(717) 556-7262



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Page 1 of 1

Sample Description: MW-9-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-9

LLI Sample # WW 6764465

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 12:30

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26 6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name	CAS	1	Received sult	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0	ug	<sub>J</sub> /1	ug/l	
00368	Nitrate Nitrogen	1479	97-55-8 N.	D.	250	5
00228	Sulfate	1480	08-79-8 24	1,000	1,500	5
		SM20 3500 Fe I	B ug	<b>1</b> /1	ug/l	
08344	Ferrous Iron	n.a.	. 9,	200	500	50

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601A	08/23/2012	18:49	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601A	08/23/2012	18:49	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	50



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Page 1 of 1

Sample Description: MW-10-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-10

LLI Sample # WW 6764466

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 12:45 by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26 6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor	
Wet C	hemistry	EPA 300.0		ug/l	ug/l		
00368	Nitrate Nitrogen		14797-55-8	N.D.	250	5	
00228	Sulfate		14808-79-8	24,400	1,500	5	
		SM20 3500 modified	Fe B	ug/l	ug/l		
08344	Ferrous Iron	modified	n.a.	580	10	1	

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	19:34	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	19:34	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	1



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Page 1 of 1

Sample Description: MW-11-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-11

LLI Sample # WW 6764467

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 13:00 by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26 6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name	CAS Nur	As Received aber Result	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0	ug/l	ug/l	
00368	Nitrate Nitrogen	14797-5	55-8 N.D.	250	5
00228	Sulfate	14808-7	79-8 59,500	1,500	5
		SM20 3500 Fe B	ug/l	ug/l	
08344	Ferrous Iron	n.a.	1,400	50	5

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	20:19	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	20:19	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	5



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Page 1 of 1

Sample Description: MW-12-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-12

LLI Sample # WW 6764468

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:00

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26 6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Cl 00368 00228	<b>hemistry</b> Nitrate Nitrogen Sulfate	EPA 300.0	14797-55-8 14808-79-8	ug/1 N.D. 3,200	<b>ug/1</b> 250 1,500	5 5
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron	modified	n.a.	6,400	200	20

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	20:35	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	20:35	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	20



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Sample Description: MW-13-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-13

LLI Sample # WW 6764469

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:55

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05

Reported: 09/18/2012 13:26

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Cl 00368 00228	<b>hemistry</b> Nitrate Nitrogen Sulfate	EPA 300.0	14797-55-8 14808-79-8	<b>ug/1</b> N.D. 2,600	<b>ug/1</b> 250 1,500	5 5
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron	modified	n.a.	1,200	50	5

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	20:50	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	20:50	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	5



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Sample Description: MW-14-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-14

LLI Sample # WW 6764470

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 12:15 by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26 6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name	CA	AS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0		ug/l	ug/l	
00368	Nitrate Nitrogen	14	1797-55-8	N.D.	250	5
00228	Sulfate	14	1808-79-8	145,000	6,000	20
		SM20 3500 Fe	в В	ug/l	ug/l	
08344	Ferrous Iron		.a.	1,000	50	5

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	21:35	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/24/2012	20:12	Christopher D Meeks	20
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	5



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Page 1 of 1

Sample Description: MW-15-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-15

LLI Sample # WW 6764471 LLI Group # 1330707

Account # 10904

Project Name: 211253

Collected: 08/22/2012 10:40

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Cl 00368 00228	<b>hemistry</b> Nitrate Nitrogen Sulfate	EPA 300.0	14797-55-8 14808-79-8	<b>ug/l</b> 2,100 267,000	<b>ug/l</b> 250 15,000	5 50
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron	modified	n.a.	N.D.	10	1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	21:50	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/24/2012	20:27	Christopher D Meeks	50
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	1



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Sample Description: MW-16-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-16

LLI Sample # WW 6764472 LLI Group # 1330707

Account # 10904

Project Name: 211253

Collected: 08/22/2012 16:00

Submitted: 08/23/2012 10:05

Reported: 09/18/2012 13:26

by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0		ug/l	ug/l	
00368	Nitrate Nitrogen		14797-55-8	590	250	5
00228	Sulfate		14808-79-8	49,400	1,500	5
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron		n.a.	16	10	1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	22:06	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	22:06	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	1



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Page 1 of 1

Sample Description: MW-17-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-17

LLI Sample # WW 6764473 LLI Group # 1330707

Account # 10904

Project Name: 211253

Collected: 08/22/2012 11:15 by

by ML

Chevron

L4310

6001 Bollinger Canyon Rd.

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0		ug/l	ug/l	
00368	Nitrate Nitrogen		14797-55-8	3,700	250	5
00228	Sulfate		14808-79-8	77,400	3,000	10
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron		n.a.	N.D.	10	1

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	22:21	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/24/2012	20:42	Christopher D Meeks	10
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	1



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Page 1 of 1

Sample Description: MW-18-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-18

LLI Sample # WW 6764474 LLI Group # 1330707

Account # 10904

Project Name: 211253

Collected: 08/22/2012 11:25

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05 Reported: 09/18/2012 13:26

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor	
Wet C	hemistry	EPA 300.0		ug/l	ug/l		
00368	Nitrate Nitrogen		14797-55-8	580	250	5	
00228	Sulfate		14808-79-8	143,000	6,000	20	
		SM20 3500 modified	Fe B	ug/l	ug/l		
08344	Ferrous Iron	modified	n.a.	2,500	100	10	

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	22:36	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/24/2012	20:57	Christopher D Meeks	20
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	10



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Page 1 of 1

Sample Description: MW-19-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-19

LLI Sample # WW 6764475 LLI Group # 1330707

Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:00

Reported: 09/18/2012 13:26

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name	CAS Numl	As Received er Result	As Received Method Detection Limit	Dilution Factor	
Wet C	hemistry	EPA 300.0	ug/l	ug/l		
00368	Nitrate Nitrogen	14797-55	-8 N.D.	250	5	
00228	Sulfate	14808-79	1-8 32,900	1,500	5	
		SM20 3500 Fe B	ug/l	ug/l		
08344	Ferrous Iron	n.a.	820	50	5	

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655601B	08/23/2012	22:51	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655601B	08/23/2012	22:51	Christopher D Meeks	5
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	5



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Page 1 of 1

Sample Description: MW-20-W-120822 Grab Water

Facility# 211253 Job# 385867 GRD

930 Springtown-Livermore T0600101353 MW-20

LLI Sample # WW 6764476

LLI Group # 1330707 Account # 10904

Project Name: 211253

Collected: 08/22/2012 14:30

Reported: 09/18/2012 13:26

by ML

Chevron

L4310

Submitted: 08/23/2012 10:05

6001 Bollinger Canyon Rd.

San Ramon CA 94583

CAT No.	Analysis Name		CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet C	hemistry	EPA 300.0		ug/l	ug/l	
00368	Nitrate Nitrogen		14797-55-8	N.D.	250	5
00228	Sulfate		14808-79-8	234,000	15,000	50
		SM20 3500 modified	Fe B	ug/l	ug/l	
08344	Ferrous Iron		n.a.	2,800	100	10

### General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
00368	Nitrate Nitrogen	EPA 300.0	1	12236655902A	08/23/2012	22:58	Christopher D Meeks	5
00228	Sulfate	EPA 300.0	1	12236655902A	08/24/2012	16:31	Christopher D Meeks	50
08344	Ferrous Iron	SM20 3500 Fe B modified	1	12238834402A	08/25/2012	09:20	Daniel S Smith	10



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### Quality Control Summary

Client Name: Chevron Group Number: 1330707

Reported: 09/18/12 at 01:26 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

### Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS <u>%REC</u>	LCSD %REC	LCS/LCSD <u>Limits</u>	RPD	RPD Max
Batch number: 12236655601A Nitrate Nitrogen Sulfate	Sample number N.D.	er(s): 676 50. 300.	4465 ug/l ug/l	97 95		90-110 90-110		
Batch number: 12236655601B Nitrate Nitrogen Sulfate	Sample number N.D. N.D.	er(s): 676 50. 300.	4466-6764 ug/l ug/l	475 97 95		90-110 90-110		
Batch number: 12236655902A Nitrate Nitrogen Sulfate	Sample number N.D.	er(s): 676 50. 300.	4476 ug/l ug/l	101 98		90-110 90-110		
Batch number: 12238834402A Ferrous Iron	Sample numbe	er(s): 676 10.	4465-6764 ug/l	476 100		93-105		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS <u>%REC</u>	MSD %REC	MS/MSD <u>Limits</u>	RPD	RPD <u>MAX</u>	BKG <u>Conc</u>	DUP <u>Conc</u>	DUP <u>RPD</u>	Dup RPD <u>Max</u>
Batch number: 12236655601A Nitrate Nitrogen Sulfate	Sample 100 96	number(s)	: 6764465 90-110 90-110	UNSPK:	67644	65 BKG: 676 N.D. 24,000	4465 N.D. 23,500	0 (1) 2 (1)	20 20
Batch number: 12236655601B Nitrate Nitrogen Sulfate	Sample 94 90	number(s)	: 6764466 90-110 90-110	-676447	5 UNSP	K: 6764466 1 N.D. 24,400	BKG: 6764466 N.D. 24,100	0 (1) 1 (1)	20 20
Batch number: 12236655902A Nitrate Nitrogen Sulfate	Sample 102 102	number(s)	: 6764476 90-110 90-110	UNSPK:	P7542	97 BKG: P75 390 72,300	4297 N.D. 70,700	200* (1)	20 20
Batch number: 12238834402A Ferrous Iron	Sample 100	number(s) 98	: 6764465 81-112	-676447 2	6 UNSP	K: P766736 1 14,600	BKG: P766736 14,800	1 (1)	5

### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

### Chevron California Region Analysis Request/Chain of Custody



Data Package Options (please circle if required)

Type I - Full

☐ Coelt Deliverable not needed

QC Summary

WIP (RWQCB)

Disk

Type VI (Raw Data)

Lancaster Laboratories		•			Acc	t. #: <u>_</u> [	09	04	<u> </u>	Sam	For I	G 7	ster I	Laborato	-76	only Group #: 010228
										Ar	naly	ses l	Requ	ested		Grp#1330707
Facility #: SS#211253-OML G-R#38586	7 Global ID#	T0600101353		ı	Matrix					Pi	rese	rvati	on C	odes		Preservative Codes
930 SPRINGTOWN BLVD., LIN	VERMORE, C	CA							음		-	╁	+	4		H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH
Chevron PM: CM Lead G-R, Inc., 6747 Sierra Cou	Consultant: CF	RATH Ha	riu			ړ ۲			Cleanup							$S = H_2SO_4$ $O = Other$
Consultant/Office:			68		Potable NPDES	ainer			8			Ш		>		☐ J value reporting needed
Deanna L. Harding (deanna@grinc.com) Consultant Prj. Mgr.:						Containers	□ 8021□		Silica			П	102	100		☐ Must meet lowest detection limits possible for 8260 compounds
Consultant Phone #925-551-7555 Sampler: MIKE L. FRANK T	_ Fax #: 925-5	551-7899				া	8	<u>ا</u> ۾	DRO 🗆			Method	Method // // // // // // // // // // // // //	14		8021 MTBE Confirmation
Sampler: MIKE L. FRANK T	-		<u>e</u>		.	l de		90	00	_	enate	Ž		3		☐ Confirm highest hit by 8260
			posi		ter □	į	¥	015 M	8015 MOD	SS	Oxygenates	- Bad	Solved Lead	7.00		☐ Confirm all hits by 8260 ☐ Run oxy's on highest hit
Sample Identification	Date Collected	Time g	Composite	Soil	Water	Total Number	BTEX + MTBE	TPH 8015 MOD GRO	TPH 8	8260 full scan		Total Lead	Dissolved Lead	M		Run oxy's on all hits
4																Comments / Remarks
	8-22-13				X	3	<u> </u>			_	_		X	X	_	
		1245 X			X	3	╂					-	_ <u> </u> ×			- 1
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MW-12	<del>   </del>	1400 X	<b>}</b>			3	<b>!</b>				_	$\perp$	_X	$X_{\perp}$		directly to the Lead Consultant and cc: G-R.
MW-13		1455 X	$\square$			3	-				_		$\bot$ X	X		4
MW-14	1 1 1	1215 X			X	13				_	_		$- \chi $	X		4
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MW-20	<u> </u>	1430 X			X	3							$\bot X$	X		<u>i</u>
urnaround Time Requested (TAT) (please ci	· ·	Relinquish		<u>.</u> س		_			8	22.12	Tir	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Rece	ived by:		Date Time
72 hour 48 hou 24 hour 4 day 5 day	ır	Relinquished	by:						_	ate		ne		ived by:		Date Time

Other

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Date

Time

Received by:

**Custody Seals Intact?** 

Relinquished by:

UPS

Relinquished by commercial Carrier:

FedEx

Temperature Upon Receipt

EDF/EDD

Date

Date

8-23-12 100

Time

Time



### **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
μg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	μL	microliter(s)
		pg/L	picogram/liter

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis

Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Data Qualifiers:

C - result confirmed by reanalysis.

**J** - estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

### Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

### ATTACHMENT C

HISTORICAL GROUNDWATER MONITORING AND SAMPLING DATA

Table 1
Groundwater Monitoring Data and Analytical Results

Former Texaco Service Station #211253 930 Springtown Boulevard Livermore, California

				Liveri	more, California					
WELL ID/	TOC*	DTW	GWE	SPHT SP	H REMOVED	TPH-GRO	В	T	E	X
DATE	(ft.)	(ft.)	(msl)	(ft.)	(gallons)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(µg/L)
MW-9										
$07/23/09^1$	523.14	13.00	510.14	0.00	0.00	5,200	4	5	310	100
11/09/09	523.14	12.70	510.44	0.00	0.00	240	4	4	2	5
02/22/10	523.14	11.93	511.21	0.00	0.00	< 50	< 0.5	< 0.5	< 0.5	< 0.5
05/24/10	523.14	12.22	510.92	0.00	0.00	6,200	9	5	470	110
<b>MW-10</b>	500.76	12.50	510.15	0.00	0.00	1 < 000	220	4.40	440	660
07/23/09 <sup>1</sup>	522.76	12.59	510.17	0.00	0.00	16,000	220	$\frac{440}{2^3}$	440	660
11/09/09 02/22/10	522.76 522.76	12.30	510.46	0.00	0.00 0.00	2,800	1 9		30 61	30 10
05/24/10 05/24/10	522.76 522.76	11.52 <b>11.82</b>	511.24 <b>510.94</b>	0.00 <b>0.00</b>	0.00	3,600 <b>3,000</b>	12	2 <b>3</b>	110	22
05/24/10	522.70	11.02	510.94	0.00	0.00	3,000	12	3	110	22
MW-11										
$07/23/09^1$	523.25	13.05	510.20	0.00	0.00	5,400	25	28	62	66
11/09/09	523.25	12.73	510.52	0.00	0.00	1,100	3	$0.6^{3}$	2	2
02/22/10	523.25	11.96	511.29	0.00	0.00	1,400	2	< 0.5	5	0.9
05/24/10	523.25	12.27	510.98	0.00	0.00	1,700	1	<0.5	10	0.6
MW-12					2					
07/23/09 <sup>1</sup>	523.42	13.03	510.41**	0.02	5.01 <sup>2</sup>	48,000	340	3,100	1,300	7,600
11/09/09	523.42	12.78	510.64	0.00	0.00	18,000	290	560	22	3,100
02/22/10	523.42	12.13	511.29	0.00	0.00	14,000	190	590	310	1,400
05/24/10	523.42	12.38	511.04	0.00	0.00	17,000	150	530	320	1,400
MW-13										
$07/23/09^1$	523.12	12.75	510.37	0.00	0.00	52,000	760	6,200	980	13,000
11/09/09	523.12	12.73	510.61	0.00	0.00	12,000	340	1,300	16	1,700
02/22/10	523.12	11.87	511.25	0.00	0.00	13,000	630	600	22	960
05/24/10	523.12	12.10	511.02	0.00	0.00	15,000	950	670	130	790
						*				

Table 1
Groundwater Monitoring Data and Analytical Results

Former Texaco Service Station #211253 930 Springtown Boulevard Livermore, California

					Livermore, Camorn					
WELL ID/	TOC*	DTW	GWE	SPHT	SPH REMOVED	TPH-GRO	В	T	E	X
DATE	(ft.)	(ft.)	(msl)	(ft.)	(gallons)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
MW-14										
07/23/091	520.88	10.40	510.48	0.00	0.00	8,400	230	460	180	670
11/09/09	520.88	10.11	510.77	0.00	0.00	23,000	1,800	1,900	750	2,600
02/22/10	520.88	9.37	511.51	0.00	0.00	48,000	3,600	7,900	2,100	9,400
05/24/10	520.88	9.88	511.25**	0.31	0.00	NOT SAMPLE	D DUE TO THE I	PRESENCE OF S	SPH	
MW-15										
07/23/091	520.87	10.33	510.54	0.00	0.00	2,500	6	17	16	320
11/09/09	520.87	10.18	510.69	0.00	0.00	20,000	110	590	370	4,900
02/22/10	520.87	9.48	511.39	0.00	0.00	66	< 0.5	3	1	6
05/24/10	520.87	9.83	511.04	0.00	0.00	70	1	8	1	8
MW-16										
$07/23/09^1$	520.50	10.63	509.87	0.00	0.00	430	0.6	< 0.5	< 0.5	< 0.5
11/09/09	520.50	10.31	510.19	0.00	0.00	180	< 0.5	< 0.5	<0.5	< 0.5
02/22/10	520.50	9.63	510.87	0.00	0.00	< 50	< 0.5	< 0.5	< 0.5	< 0.5
05/24/10	520.50	9.88	510.62	0.00	0.00	<50	<0.5	<0.5	<0.5	<0.5
QA										
07/23/09						<50	< 0.5	< 0.5	< 0.5	< 0.5
11/09/09						<50	< 0.5	14	< 0.5	< 0.5
02/22/10						< 50	< 0.5	< 0.5	< 0.5	< 0.5
						< 50	<0.5	<0.5	< 0.5	< 0.5

#### Table 1

### **Groundwater Monitoring Data and Analytical Results**

Former Texaco Service Station #211253 930 Springtown Boulevard Livermore, California

#### **EXPLANATIONS:**

 $TOC = Top ext{ of Casing}$  (msl) = Mean Sea Level E = Ethylbenzene (ft.) = Feet TPH = Total Petroleum Hydrocarbons X = Xylenes  $DTW = Depth ext{ to Water}$  GRO = Gasoline Range Organics --= Not Measured/Not Analyzed

GWE = Groundwater Elevation B = Benzene QA = Quality Assurance/Trip BlankSPHT = Separate Phase Hydrocarbon Thickness T = Toluene ( $\mu g/L$ ) = Micrograms per liter

#### **ANALYTICAL METHODS:**

TPH-GRO analyzed by EPA Method 8015 BTEX analyzed by EPA Method 8260

- Product + water removed.
- The Laboratory report indicates the result reported for toluene in this sample may be attributed to trace amounts of toluene recently found in HCl preserved vials from the manufacturer. The trip blank associated with this sample had a trace toluene detection of 1 ug/l. Please refer to the letter accompanying the lab report for further explanation.
- The Laboratory report indicates the result reported for toluene in this trip blank may be attributed to trace amounts of toluene recently found in HCl preserved vials from the manufacturer. Please refer to the letter accompanying the lab report for further explanation.

211253.xls/385867 **1** As of 05/24/10

<sup>\*</sup> TOC elevations were surveyed on July 22, 2009, by Morrow Surveying. Vertical datum is NAVD 88 from GPS Observations.

<sup>\*\*</sup> GWE has been corrected due to the presence of SPH; correction factor: [(TOC - DTW) + (SPHT x 0.80)].

Well development preformed.