Roya Kambin
Project Manager
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Tel (925) 790-6270
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June 21, 2012

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

Re: Former Texaco Service Station 317233
2259 First Street
Livermore, California
ACEHS Case No. RO2908

I accept the Human Health Risk Assessment for Lead.

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 Human Health Risk Assessment for Lead was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

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

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

Sincerely,

Roya Kambin
Project Manager

Attachment: Human Health Risk Assessment for Lead

CONESTOGA-ROVERS
& ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
http://www.craworld.com

June 21, 2012 Reference No. 312264

Mr. Jerry Wickham
Alameda County Environmental Health Services (ACEHS)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Human Health Risk Assessment for Lead
Former Texaco Service Station 307233
2259 First Street
Livermore, California
ACEHS Case RO0002908

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) is submitting this *Human Health Risk Assessment (HHRA) for Lead* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced above (Figures 1 and 2). In the December 14, 2011 letter, ACEH requested the lead concentrations detected in shallow soil (<10 fbg) be compared to the Office of Environmental Health Hazard Assessment (OEHHA) screening levels of 80 mg/kg under a residential scenario and 320 mg/kg under a commercial land use scenario. In the May 9, 2012 *Well Installation Report*, CRA concluded that based on the lead distribution in shallow soil illustrated in Figure 3, no additional assessment is necessary, but recommended a HHRA be submitted as a separate report.

The maximum lead concentration of 3,700 milligrams per kilogram (mg/kg) exceeded both the residential and commercial OEHHA screening levels (Table 1). The 95 percent upper confidence limit (UCL) of the lead in soil at the site was determined to be 611 mg/kg. The 90th percentile of the Preliminary Remediation Goal (PRG90) values for residential and commercial scenarios were calculated using the Lead Spread8 spreadsheet and Adult Lead Model (ALM) provided by Department of Toxic Substance Control (DTSC). Because a park does not quite fall under the residential or commercial scenario, both were evaluated. A child park user ("residential") was assumed to use the park for 0.5 day per week and a commercial worker was assumed to be present within the park for 100 days per year (2 days/week for 50 weeks/year). The calculated PRG90 for a child was 1,079 mg/kg and for a commercial worker was 795 mg/kg. Both of these calculated PRG90 values were above the 95 percent UCL of 611 mg/kg for lead. As result, the levels of lead within the soil of the park will not result in a concern for either a child or commercial worker. Details and calculation tables for the HHRA are presented in Attachment B.

CONESTOGA-ROVERS & ASSOCIATES

Please contact Kiersten Hoey at (510) 420-3347 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

PROFESSIONAL GEOLOGIST N. SCOTT MacLEOD No. 5747 Exp 11/30/12 STATE OF CALIFORNIA

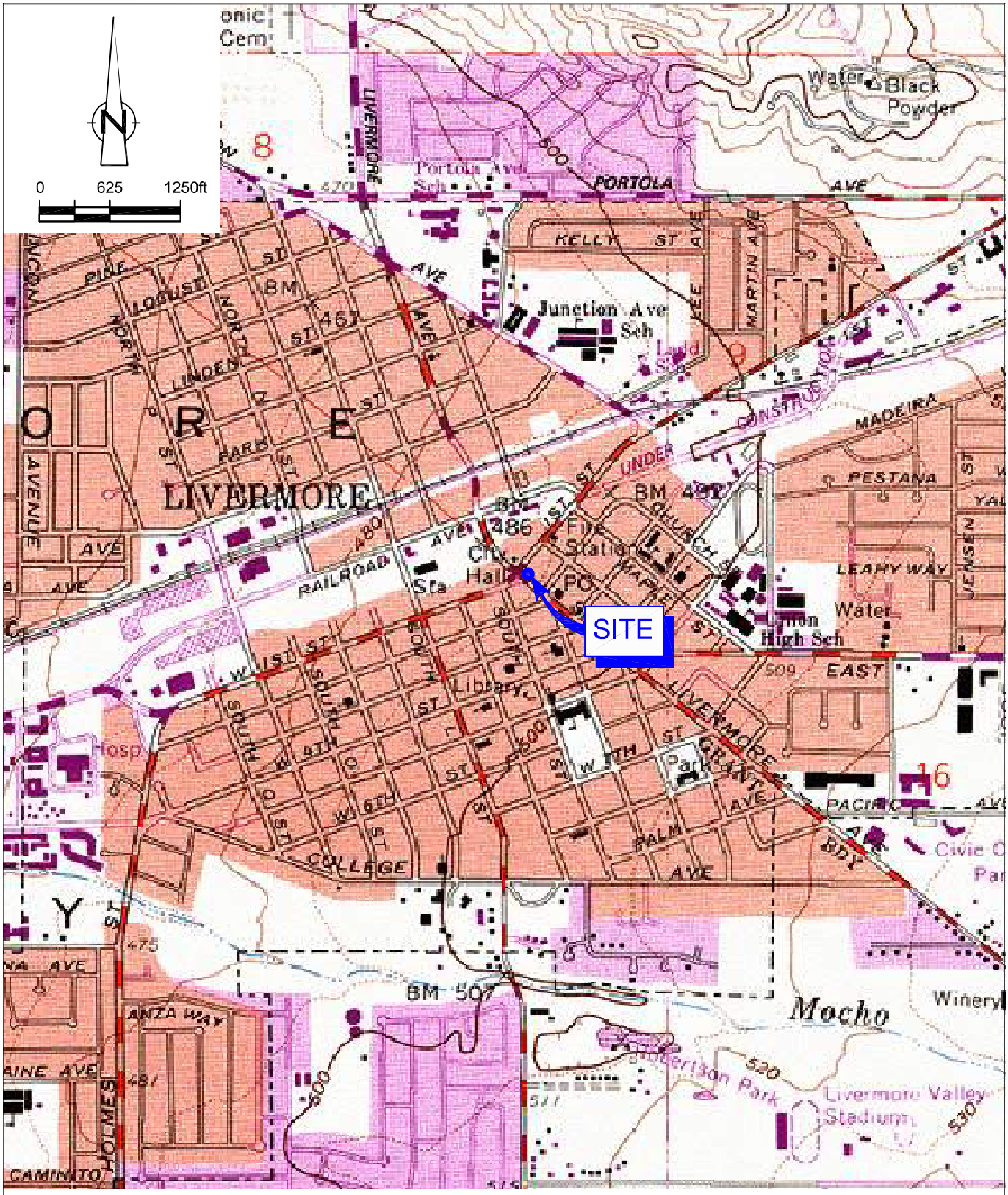
Kiersten Hoey N. Scott Macleod, PG 5747

KH/mws/18
Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Maximum Lead Concentrations in Shallow Soil (<10 fbg)
Table 1	Cumulative Soil Analytical Data
Attachment A	Regulatory letter
Attachment B	HHRA

cc: Mr. Roya Kambin, Chevron *(electronic copy)*
Mr. Eric Uranaga, City of Livermore Economic Development

FIGURES



SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP
FORMER TEXACO STATION (CHEVRON SITE 307233)
2259 FIRST STREET
Livermore, California

312264-2012(018)GN-EM001 MAY 24/2012

FIRST STREET

LIVERMORE AVENUE

CPT4

CPT5

MW-2

MW-3

MW-1

MW-4

MW-5

MW-6

MW-7

MW-8

MW-9

MW-10

MW-11

MW-12

CPT1

CPT2

CPT3

SB1

SB2

SB3

SB4

SB5

SB6

SB7

SB8

SB9

SB10

SB11

SB12

SB13

B1

B2

B3

SSB1

SSB2

SSB3

SSB4

SSB5

SSB6

SSB7

SSB8

SSB9

SSB10

SSB11

VP1

VP2

VP3

BRICK

BRICK

PLANTER

PLANTER

PLANTER

BENCH (TYP.)

CANOPY

FORMER DISPENSER ISLANDS

FORMER STATION BUILDING

BUILDING

PEETS COFFEE

UTILITY VAULTS

FORMER USTS (REMOVED 2007)

FORMER UST (REMOVED 2005)

N

0 10 20ft

0°
90°
180°
270°

HISTORICAL SHALLOW GROUNDWATER FLOW DIRECTION 2Q2010 THROUGH 2012

0°
90°
180°
270°

HISTORICAL DEEP GROUNDWATER FLOW DIRECTION 2Q2010 THROUGH 2012

LEGEND

- DEEP MONITORING WELL LOCATION
- SHALLOW MONITORING WELL LOCATION
- CPT BORING LOCATION
- SOIL BORING LOCATION
- SOIL BORING LOCATION (FURGRO 2003)
- VAPOR PROBE LOCATION
- SHALLOW SOIL SAMPLE LOCATION

Figure 2

SITE PLAN
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312264-2012(018)GN-EM002 MAY 24/2012

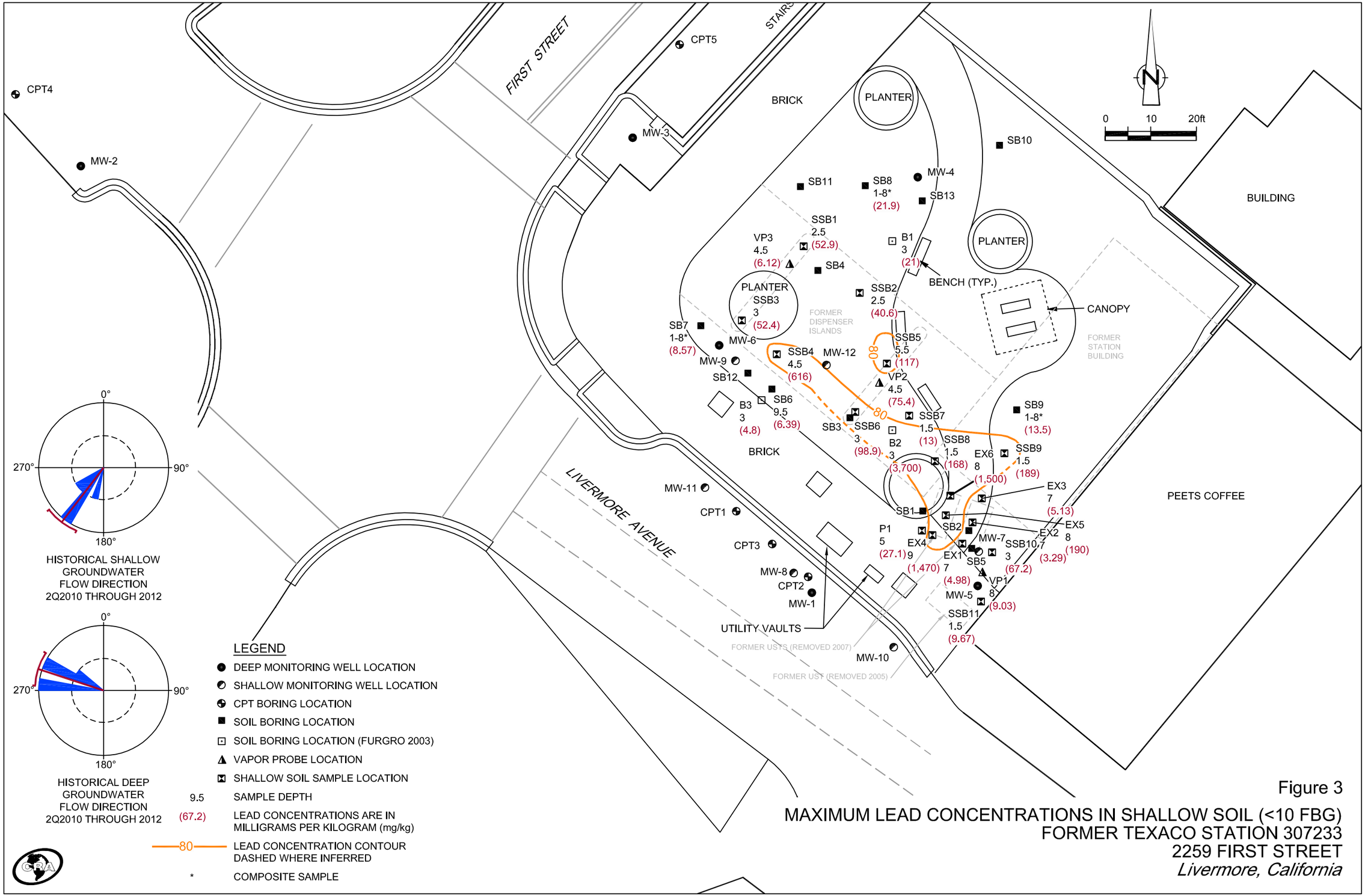


Figure 3

MAXIMUM LEAD CONCENTRATIONS IN SHALLOW SOIL (<10 FBG)
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312264-2012(018)GN-EM003 MAY 24/2012

TABLE

TABLE 1

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHmo*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*OXYs*	*Pb*
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	*Soil Leaching Screening Level (Drinking Water Sourse)* [a]		*83*	*83*	*83*	*0.044*	*2.9*	*3.3*	*2.3*	*0.023*	*Varies*	*NE*
Table K-2	*Commercial/Industrial Worker* [b]		*3,700*	*450*	*450*	*0.27*	*210*	*5*	*100*	*65*	*Varies*	*750*
Table K-3	*Direct Exposure Construction/Trench Worker* [c]		*12,000*	*4,200*	*4,200*	*12*	*650*	*210*	*420*	*2,800*	*Varies*	*750*
CHHSL	*Residential Land Use*		*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*80*
CHHSL	*Commercial Land Use*		*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*320*
2012 CRA Well Installation												
MW-10	2/14/2012	5	--	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	10	--	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	15	--	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	20	--	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	25	--	6.2	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	30	--	29	250	<0.023	<0.046	<0.046	<0.046	--	--	--
MW-10	2/15/2012	35	--	4.3	<1	0.0007	<0.001	<0.001	<0.001	--	--	--
MW-10	2/15/2012	39.5	--	4.3	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/14/2012	5	--	5.5	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	10	--	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	15	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	20	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	30	--	4.1	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	35	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-11	2/16/2012	39.5	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-12	2/16/2012	5	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	10	--	4.4	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	15	--	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	20	--	<4.0	<1	0.0006	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	25	--	72	500	0.098	<0.050	1.5	0.91	--	--	--
MW-12	2/17/2012	30	--	65	24	0.002	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	35	--	300	1,400	0.15	<0.20	4.8	11	--	--	--
MW-12	2/17/2012	39.5	--	<4.0	1.5	0.062	0.001	<0.001	0.002	--	--	--
MW-12	2/17/2012	42	--	<4.0	<1.0	0.023	<0.001	<0.001	<0.001	--	--	--
MW-12	2/17/2012	44.5	--	<4.0	<1	0.021	<0.001	<0.01	<0.001	--	--	--
2010 CRA Well Installation												
MW-1	03/29/2010	4.0	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-1	04/07/2010	9.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	14.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	19.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	24.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	29.5	<10	31	**310**	<0.025	<0.049	<0.049	<0.049	--	--	--
MW-1	04/07/2010	34.5	<10	<4.0	<1.0	0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	39.5	<10	<4.0	6.8	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	44.5	<10	<4.0	5.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	49.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-1	04/07/2010	54.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	Soil Leaching Screening Level (Drinking Water Sourse) [a]		83	83	83	0.044	2.9	3.3	2.3	0.023	Varies	NE
Table K-2	Commercial/Industrial Worker [b]		3,700	450	450	0.27	210	5	100	65	Varies	750
Table K-3	Direct Exposure Construction/Trench Worker [c]		12,000	4,200	4,200	12	650	210	420	2,800	Varies	750
MW-1	04/07/2010	59.5	<10	<4.0	<1	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	9.5	<10	<4.0	<1	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	14.5	<10	<4.0	<1	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	19.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-2	04/05/2010	24.5	<10	<4.0	<0.9	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	29.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-2	04/05/2010	34.5	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	39.5	<10	<4.0	<1	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-2	04/05/2010	44.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-2	04/05/2010	49.5	<10	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-2	04/05/2010	54.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-2	04/05/2010	59.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	03/30/2010	5.0	<10	8.8	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	9.5	<10	<4.0	<0.9	<0.0005	0.002	<0.001	<0.001	--	--	--
MW-3	04/06/2010	14.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	19.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	24.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	29.5	<10	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	34.5	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-3	04/06/2010	39.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	44.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	49.5	<10	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	54.5	<10	<4.0	10	0.004	<0.001	<0.001	<0.001	--	--	--
MW-3	04/06/2010	59.5	<10	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	03/30/2010	5.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	10.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	15.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	20.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	25.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	30.5	<10	82	42	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	35.5	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	40.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	45.5	<10	<4.0	80	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	50.5	<10	<4.0	31	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-4	04/12/2010	55.5	<10	4.7	**110**	0.003	0.001	0.019	0.007	--	--	--
MW-4	04/12/2010	60.5	<10	<4.0	<0.9	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--

TABLE 1

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
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Table K-2	Commercial/Industrial Worker [b]		3,700	450	450	0.27	210	5	100	65	Varies	750
Table K-3	Direct Exposure Construction/Trench Worker [c]		12,000	4,200	4,200	12	650	210	420	2,800	Varies	750
MW-5	03/31/2010	5.0	**130**	42	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	9.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	14.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	19.5	<10	<4.0	<1	0.001	<0.0009	<0.0009	<0.0009	--	--	--
MW-5	04/08/2010	24.5	<10	5.9	**150**	<0.026	<0.053	<0.053	<0.053	--	--	--
MW-5	04/08/2010	29.5	<10	8.1	18	0.003	<0.001	0.038	0.022	--	--	--
MW-5	04/08/2010	34.5	<10	29	51	<0.023	<0.046	<0.046	<0.046	--	--	--
MW-5	04/08/2010	39.5	<10	<4.0	2.1	0.027	0.002	0.004	<0.001	--	--	--
MW-5	04/08/2010	44.5	<10	<4.0	<1.0	0.003	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	49.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	54.5	<10	<4.0	<1	0.0006	<0.001	<0.001	<0.001	--	--	--
MW-5	04/08/2010	59.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/01/2010	5.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	10.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	15.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	19.5	<10	<4.0	<0.9	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--
MW-6	04/09/2010	25.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	30.0	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	35.0	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	40.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	45.0	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	50.0	<10	<4.0	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--
MW-6	04/09/2010	55.0	<10	<4.0	44	0.020	0.003	0.006	0.002	--	--	--
MW-6	04/09/2010	59.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--
2008 Subsurface Investigations												
CPT1	02/05/2008	21.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT1	02/05/2008	36.0	**380**	**100**	1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT2	02/04/2008	22.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT2	02/04/2008	30.0	<10	27	4.4	<0.026	<0.052	1.1	0.18	<0.026	ND	--
CPT2	02/04/2008	35.0	<12	<4.0	1.3	0.0009	<0.001	<0.001	0.002	<0.0005	ND	--
CPT3	11/04/2008	18.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT3	11/04/2008	35.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT3	11/04/2008	55.5	<10	7.1	52	<0.024	<0.047	<0.047	<0.047	<0.024	ND	--
CPT4	11/05/2008	50.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
CPT5	11/03/2008	51.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB6	01/28/2008	1-8***	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	6.13
SB6	01/28/2008	9.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	6.39
SB6	01/28/2008	19.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	5.79
SB6	01/28/2008	24.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	10.9

TABLE 1

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	Soil Leaching Screening Level (Drinking Water Sourse) [a]		83	83	83	0.044	2.9	3.3	2.3	0.023	Varies	NE
Table K-2	Commercial/Industrial Worker [b]		3,700	450	450	0.27	210	5	100	65	Varies	750
Table K-3	Direct Exposure Construction/Trench Worker [c]		12,000	4,200	4,200	12	650	210	420	2,800	Varies	750
SB7	01/28/2008	1-8***	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	8.57
SB7	01/30/2008	9.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	8.30
SB7	01/30/2008	19.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	4.70
SB7	01/30/2008	29.5	<10	<4.0	3.7	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	10.5
SB7	01/30/2008	34.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	11.6
SB8	01/28/2008	1-8***	53	18	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	21.9
SB8	01/31/2008	19.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	10.3
SB8	01/31/2008	29.5	<10	<4.0	1.2	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	8.29
SB8	01/31/2008	34.5	<10	67	**530**	<0.027	<0.054	0.10	<0.054	<0.027	ND	7.86
SB8	01/31/2008	39.5	<10	<4.0	<1.0	0.007	0.002	0.015	0.007	**0.039**	0.034[u]	8.93
SB9	01/28/2008	1-8***	32	13	1.3	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	13.5
SB9	01/29/2008	15.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	6.36
SB9	01/29/2008	27.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	7.92
SB9	01/29/2008	34.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	12.3
SB9	01/29/2008	46.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	9.34
SB9	01/29/2008	54.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	5.77
SB10	10/23/2008	5.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB10	11/04/2008	16.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB10	11/04/2008	26.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB10	11/04/2008	36.0	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	--
SB10	11/04/2008	46.0	<10	4.2	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB10	11/04/2008	56.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB10	11/04/2008	62.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	10/24/2008	5.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	11/03/2008	11.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	11/03/2008	16.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	11/03/2008	26.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	11/03/2008	36.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB11	11/03/2008	45.5	<10	<4.0	59	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	--
SB11	11/03/2008	50.5	<10	25	59	<0.023	<0.045	<0.045	<0.045	<0.023	ND	--
SB11	11/03/2008	56.0	<10	45	**98**	<0.023	<0.047	<0.047	<0.047	<0.023	ND	--
SB11	11/03/2008	61.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB12	10/24/2008	5.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB12	11/03/2008	15.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB12	11/03/2008	25.5	<10	<4.0	120	<0.023	<0.046	<0.046	<0.046	<0.023	ND	--
SB12	11/03/2008	30.0	<10	34	58	<0.024	<0.047	<0.047	<0.047	<0.024	ND	--
SB12	11/03/2008	35.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB12	11/03/2008	45.5	<10	<4.0	1.3	0.0007	<0.001	<0.001	<0.001	<0.0005	ND	--
SB12	11/03/2008	50.5	<10	65	**1,200**	<0.023	<0.046	<0.046	<0.046	<0.023	ND	--
SB12	11/03/2008	55.5	<10	55	**1,300**	**1.1**	0.15	2.0	**3.7**	<0.024	ND	--
SB12	11/03/2008	60.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--

TABLE 1

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	Soil Leaching Screening Level (Drinking Water Sourse) [a]		83	83	83	0.044	2.9	3.3	2.3	0.023	Varies	NE
Table K-2	Commercial/Industrial Worker [b]		3,700	450	450	0.27	210	5	100	65	Varies	750
Table K-3	Direct Exposure Construction/Trench Worker [c]		12,000	4,200	4,200	12	650	210	420	2,800	Varies	750
SSB1	02/01/2008	1.5	--	--	--	--	--	--	--	--	--	9.52
SSB1	02/01/2008	2.5	--	--	--	--	--	--	--	--	--	52.9
SSB1	02/01/2008	4.5	--	--	--	--	--	--	--	--	--	7.34
SSB2	01/28/2008	1.5	--	--	--	--	--	--	--	--	--	17.4
SSB2	01/30/2008	2.5	--	11	1.2	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	40.6
SSB2	01/30/2008	4.5	--	4.4	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	15.0
SSB2	01/30/2008	8.0	--	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	7.45
SSB3	01/30/2008	1.5	--	--	--	--	--	--	--	--	--	42.8
SSB3	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	52.4
SSB3	02/06/2008	5.0	--	--	--	--	--	--	--	--	--	42.2
SSB4	02/01/2008	1.5	--	--	--	--	--	--	--	--	--	10.2
SSB4	02/01/2008	2.5	--	--	--	--	--	--	--	--	--	**517**
SSB4	02/01/2008	4.5	--	--	--	--	--	--	--	--	--	**616**
SSB4	02/01/2008	9.0	--	--	--	--	--	--	--	--	--	90.8
SSB5	02/06/2008	1.5	--	--	--	--	--	--	--	--	--	18.2
SSB5	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	47.5
SSB5	02/06/2008	5.5	--	--	--	--	--	--	--	--	--	117
SSB5	02/06/2008	7.0	--	--	--	--	--	--	--	--	--	63.5
SSB6	02/06/2008	1.5	--	--	--	--	--	--	--	--	--	14.3
SSB6	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	98.9
SSB7	02/06/2008	1.5	--	--	--	--	--	--	--	--	--	13.0
SSB7	02/06/2008	3.5	--	--	--	--	--	--	--	--	--	9.73
SSB7	02/06/2008	5.5	--	--	--	--	--	--	--	--	--	4.60
SSB7	02/06/2008	7.0	--	--	--	--	--	--	--	--	--	3.97
SSB8	02/01/2008	1.5	--	--	--	--	--	--	--	--	--	168
SSB8	02/01/2008	4.5	--	--	--	--	--	--	--	--	--	160
SSB8	02/01/2008	9.5	--	--	--	--	--	--	--	--	--	33.8
SSB9	02/06/2008	1.5	--	--	--	--	--	--	--	--	--	189
SSB9	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	15.0
SSB9	02/06/2008	5.0	--	--	--	--	--	--	--	--	--	6.24
SSB9	02/06/2008	9.0	--	--	--	--	--	--	--	--	--	6.36
SSB10	01/31/2008	1.5	--	--	--	--	--	--	--	--	--	38.9
SSB10	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	67.2
SSB10	02/06/2008	5.0	--	--	--	--	--	--	--	--	--	5.00
SSB10	02/06/2008	9.0	--	--	--	--	--	--	--	--	--	9.34
SSB11	02/06/2008	1.5	--	--	--	--	--	--	--	--	--	9.67
SSB11	02/06/2008	3.0	--	--	--	--	--	--	--	--	--	4.86
SSB11	02/06/2008	5.0	--	--	--	--	--	--	--	--	--	3.90

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	*Soil Leaching Screening Level (Drinking Water Sourse)* [a]		*83*	*83*	*83*	*0.044*	*2.9*	*3.3*	*2.3*	*0.023*	*Varies*	*NE*
Table K-2	*Commercial/Industrial Worker* [b]		*3,700*	*450*	*450*	*0.27*	*210*	*5*	*100*	*65*	*Varies*	*750*
Table K-3	*Direct Exposure Construction/Trench Worker* [c]		*12,000*	*4,200*	*4,200*	*12*	*650*	*210*	*420*	*2,800*	*Varies*	*750*
SSB11	02/06/2008	8.5	--	--	--	--	--	--	--	--	--	5.62
VP1	02/01/2008	4.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	6.10
VP1	02/01/2008	8.0	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	9.03
VP2	02/01/2008	4.5	54	25	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	75.4
VP2	02/01/2008	9.5	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	ND	15.6
VP3	02/01/2008	4.5	<10	<4.0	1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	6.12
VP3	02/01/2008	8.0	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	4.22
2007 Tank Pull												
EX1	06/20/2007	7.0	<580	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	4.98
EX2	06/20/2007	7.0	<580	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	3.29
EX3	06/20/2007	7.0	<580	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	5.13
EX4	06/20/2007	8.0	**11,000**	**2,800**	<1.0	<0.0005	0.001	<0.001	<0.001	<0.0005	ND	**1,170**
EX4	06/20/2007	9.0	**3,100**	**1,400**	<100	<0.0005	<0.001	<0.001	0.004	<0.0005	ND	**1,470**
EX5	06/20/2007	8.0	<580	**100**	<10	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	190
EX6	06/20/2007	8.0	**3,000**	**1,300**	<400	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	**1,500**
P1	06/20/2007	5.0	<580	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	27.1
October 2006 Subsurface Investigation												
SB-1	10/26/2006	10.0	<10	<10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-1	10/26/2006	15.0	**350**	**140**	15	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-1	10/26/2006	22.0	**1,400**	**780**	**2,800**	<0.062	2.1	**7.5**	<0.12	<0.062	ND	--
SB-1	10/26/2006	26.0	**390**	**590**	**1,100**	**0.62**	0.19	**5.5**	**19**	<0.062	ND	--
SB-1	10/26/2006	32.0	**94**	**120**	**180**	**2.0**	**17**	**13**	**65**	<0.063	ND	--
SB-1	10/26/2006	35.5	67	**99**	**1,200**	**1.0**	**5.5**	2.7	**16**	<0.062	ND	--
SB-1	10/26/2006	39.5	<10	20	**1,000**	**0.90**	0.93	2.5	**11**	<0.063	ND	--
SB-3	10/23/2006	10.0	<10	<10	<1.0	<0.0005	0.001	<0.001	0.002	<0.0005	ND	--
SB-3	10/23/2006	15.0	<10	<10	<1.0	<0.0005	<0.001	<0.001	0.002	<0.0005	ND	--
SB-3	10/23/2006	21.0	<20	82	**1,800**	<0.062	<0.12	**4.8**	**15**	<0.062	ND	--
SB-3	10/23/2006	25.0	88	**3,000**	**8,700**	**14**	**410**	**120**	**770**	<0.31	ND	--
SB-3	10/23/2006	30.0	<20	**230**	**5,400**	**3.2**	**68**	**40**	**250**	<0.062	ND	--
SB-3	10/23/2006	35.0	<10	17	**630**	**0.080**	<0.12	0.56	1.1	<0.062	ND	--
SB-3	10/23/2006	39.5	<20	62	**130**	**0.23**	1.5	0.81	**5.5**	<0.063	ND	--
SB-4	09/12/2006	5.0	<18	33	1.3	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-4	09/12/2006	10.0	<20	28	2.8	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-4	09/12/2006	15.0	<20	<12	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-4	09/12/2006	20.0	<20	<10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-4	09/12/2006	25.0	<20	24	**310**	<0.003	<0.005	0.008	<0.005	<0.003	ND	--
SB-4	09/12/2006	27.5	<20	**260**	**1,600**	**0.10**	0.14	**4.5**	**19**	<0.062	ND	--
SB-4	09/12/2006	30.0	<20	<12	22	0.003	<0.005	0.014	0.007	<0.002	ND	--
SB-4	09/12/2006	35.0	<20	45	**320**	<0.063	<0.13	<0.13	<0.13	<0.063	ND	--
SB-4	09/12/2006	39.5	<16	<10	1.2	**0.15**	<0.001	<0.001	<0.001	<0.0005	ND	--

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	*Soil Leaching Screening Level (Drinking Water Sourse)* [a]		*83*	*83*	*83*	*0.044*	*2.9*	*3.3*	*2.3*	*0.023*	*Varies*	*NE*
Table K-2	*Commercial/Industrial Worker* [b]		*3,700*	*450*	*450*	*0.27*	*210*	*5*	*100*	*65*	*Varies*	*750*
Table K-3	*Direct Exposure Construction/Trench Worker* [c]		*12,000*	*4,200*	*4,200*	*12*	*650*	*210*	*420*	*2,800*	*Varies*	*750*
SB-5	10/24/2006	10.0	<10	<10	<1.0	<0.0005	0.001	<0.001	0.002	<0.0005	ND	--
SB-5	10/26/2006	15.0	<10	<10	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	ND	--
SB-5	10/26/2006	19.5	**560**	**700**	27	<0.0005	<0.001	<0.001	0.001	<0.0005	ND	--
SB-5	10/26/2006	26.0	**450**	**620**	**1,100**	**0.78**	<0.13	**8.5**	**12**	<0.063	ND	--
SB-5	10/26/2006	30.0	**140**	**320**	**950**	<0.062	<0.12	1.1	2.0	<0.062	ND	--
SB-5	10/26/2006	34.0	**290**	**630**	**3,100**	**17**	**67**	**38**	**130**	<0.13	ND	--
SB-5	10/26/2006	39.5	<10	80	**1,400**	**5.4**	2.6	**13**	**73**	<0.062	ND	--
2005 Consolidated Engineering Tank Pull												
Sample (1) I	09/20/2005	3.0	<2,500	**4,100**	--	<0.017	<0.017	<0.017	<0.017	<0.017	ND	--
Sample (2)	09/20/2005	3.0	<250	**1,300**	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	--
Sample (3)	09/20/2005	3.0	<200	**670**	--	<0.022	<0.022	<0.022	<0.022	<0.022	ND	--
Sample (4)	09/20/2005	3.0	<50	1.0	<1.000	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	--
Sample (5)	09/20/2005	3.0	54	**140**	<1.000	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	--
Sample (6)	09/20/2005	3.0	<50	2.1	3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	ND	--
2004 Fugro Subsurface Investigation												
B-1	09/17/2003	3.0	--	--	--	--	--	--	--	--	--	21
B-1	09/17/2003	25.5	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
B-2	09/17/2003	3.0	--	--	--	--	--	--	--	--	--	**3,700******
B-2	09/17/2003	15.5	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--
B-2	09/17/2003	30.0	<50	9.6	3.5	<0.005	<0.005	<0.005	<0.005	<0.005	--	--
B-3	09/17/2003	3.0	--	--	--	--	--	--	--	--	--	4.8
B-3	09/17/2003	25.5	<50	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	--	--

TABLE 1

CUMULATIVE SOIL ANALYTICAL DATA
FORMER TEXACO SERVICE STATION 30-7233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	OXYs	Pb
			Reported in milligrams per kilogram (mg/kg)									
ESL												
Table G	Soil Leaching Screening Level (Drinking Water Sourse) [a]		83	83	83	0.044	2.9	3.3	2.3	0.023	Varies	NE
Table K-2	Commercial/Industrial Worker [b]		3,700	450	450	0.27	210	5	100	65	Varies	750
Table K-3	Direct Exposure Construction/Trench Worker [c]		12,000	4,200	4,200	12	650	210	420	2,800	Varies	750

Notes and Abbreviations:

Total petroleum hydrocarbons as motor oil (TPHmo) analyzed by EPA Method 8015B modified unless otherwise noted.

Total petroleum hydrocarbons as diesel (TPHd) analyzed by EPA Method 8015B with silica gel cleanup unless otherwise noted.

Total petroleum hydrocarbons as gasoline (TPHg) analyzed by EPA Method 8015B modified unless otherwise noted.

Benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tertiary-butyl ether (MTBE); t-butyl alcohol (TBA); di-isopropyl ether (DIPE); ethyl tertiary-butyl ether (ETBE); t-amyl methyl ether (TAME); 1,2-dichloroethane (1,2-DCA); 1,2-dibromoethane (EDB) analyzed by EPA method 8260B unless otherwise noted.

OXYs = TBA, DIPE, ETBE, TAME, 1,2,-DCA, and EDB

fbg = feet below grade.

<x = Not detected at reporting limit x.

ND = not detected at various laboratory method detection limits.

ESLs = Environmental Screening Levels for commerical land use where groundwater is a current or potential drinking water source from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* presented by the California Regional Water Quality Control Board - San Francisco Bay Region Interim Final November 2007, revised May 2008.

CHHSL = California Human Health Screening Level from the Office of Environmental Health Hazard Assessment's *Revised California Human Health Screening Level for Lead* dated May 14, 2009

NE = Not established

-- = Not applicable/not analyzed.

a = Potential leaching of chemicals from vadose zone soils and subsequent impact on groundwater

b = Worker who regularly performs grounds-keeping activities. Exposure to surface ans shallow subsurface soils (i.e. at depths of 0-2 fbg) is expected to occur during moderate digging associated with routine maintenance and grounds-keeping activities

c = Worker on a single onsite construction project with exposures to surface and subsurface soils (i.e. at depths of 0-10 fbg) during excavation, maintenance and building construction.

d = TBA, no other oxygenates detected

*** = Discrete sample could not be collected due to large cobbles, composite sample collected.

**** = Soluble Lead Toxicity Characteristic Leaching Potential (TCLP) analysis resulted in a concentration <0.50 milligrams per liter.

ATTACHMENT A

REGULATORY LETTER

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 14, 2011

Mr. Eric Frohnapple (*Sent via E-mail to: ericf@chevron.com*)
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

Mr. Eric Uranga (*Sent via E-mail to: ejuranga@ci.livermore.ca.us*)
City of Livermore Economic Development
1052 S. Livermore Ave.
Livermore, CA 94550

Subject: Conditional Work Plan Approval for Fuel Leak Case No. RO0002908 and GeoTracker Global ID T0600196622, Miller Square Park, 2259 First Street, Livermore, CA 94550

Dear Mr. Frohnapple and Mr. Uranga:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above referenced site including the most recently submitted document entitled, "*Work Plan for Feasibility Testing and Additional Assessment, Former Texaco Station, 30-7233, 2259 First Street, Livermore, California*," dated October 28, 2011 (Work Plan). The Work Plan, which was prepared on behalf of Chevron by Conestoga-Rovers & Associates (CRA), presents plans to install additional monitoring wells and conduct a phased remedial approach using surfactant-enhanced recovery and application of calcium sulfate dehydrate.

The proposed scope of work is conditionally approved and may be implemented provided that the technical comments below are incorporated during implementation of the proposed work and the conditions discussed in technical comment 3 are met prior to land application of gypsum. Submittal of a revised Work Plan or Work Plan Addendum is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

1. **Area for Land Application of Gypsum**. The Work Plan currently proposes installation of a sulfate canister in MW-7 and land application of gypsum in the area of well MW-7, which is a 2-inch diameter monitoring well. We request that you expand the area of land application of gypsum beyond well MW-7 to include at a minimum, the landscaped area beneath the 100 milligram per kilogram concentrations contour shown on the attached Figure 5 – TPHg Concentrations in Shallow Soil – 20-40 FBG. The area shown on Figure 5 includes boring SB-3, where the highest concentrations of total petroleum hydrocarbons and benzene have been detected historically in soil.

2. **Additional Monitoring Wells**. In order to evaluate the effectiveness of the land application of gypsum, we request that you install one additional monitoring well near boring SB-3 and one additional monitoring well in the parking area southwest (downgradient) from boring SB-3. The two additional soil borings may be advanced and the wells constructed using the procedures described on

pages 6 through 7 and Appendix D of the Work Plan. The two additional monitoring wells are to be sampled following installation and are to be sampled quarterly along with wells MW-7, MW-8, and the new well approximately 25 feet southwest of well MW-7. Please present results from well installation and the initial groundwater sampling event in the Feasibility Test Report requested below.

3. **Potential Effects of Land Application of Gypsum**. Prior to the land application of gypsum within the park, we request evaluations of the potential effects of land application of gypsum within the landscaped areas of the park as follows:
    - An evaluation of potential health or nuisance impacts to users of the park caused by gypsum application at the proposed rate. The evaluation is to be performed by a certified industrial hygienist or other qualified professional in risk assessment.
    - An evaluation of the potential impact of gypsum application at the proposed rate on the vegetation in the park. This evaluation is to be performed by a Master Gardener, arborist, or other qualified professional.
    - Please submit these written evaluations prior to surface application of the gypsum.

4. **Screening Levels for Lead in Soil.** Elevated concentrations of lead have been detected in shallow soil samples collected at the site. In CRA reports dated December 22, 2006, March 5, 2009, and June 3, 2010, the lead concentrations in soil were compared to a screening level of 750 milligrams per kilogram (San Francisco Bay Regional Water Quality Control Board Environmental Screening Level for commercial land use). The Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency proposed revised screening levels for lead in a May 18, 2009 document entitled, "*Revised California Human Health Screening Level for Lead*." The OEHAA screening level for lead is 80 mg/kg under a residential land use scenario and 260 mg/kg under a commercial land use scenario. Several shallow soil samples collected at the site significantly exceed the OEHHA screening level. We request that you review the lead data and provide recommendations regarding assessment of potential human health risks in shallow soil and further characterization of shallow soils. Please present these recommendations in the Feasibility Test Report requested below.

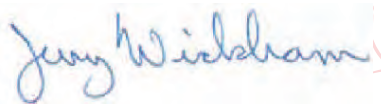
TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **Prior to surface application of gypsum** – Evaluations described in technical comment 3
- **April 30, 2012** – Semi-Annual Groundwater Monitoring Report – First Quarter 2012
- **May 11, 2012** – Feasibility Test Report
- **October 29, 2012** – Semi-Annual Groundwater Monitoring Report – Third Quarter 2012

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Figure 5 – TPHg Concentrations in Shallow Soil 20-40 FBG
Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Colleen Winey, QIC 80201, Zone 7 Water Agency, 100 North Canyons Parkway
Livermore, CA 94551 (*Sent via E-mail to: cwiney@zone7water.com*)

Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street
Pleasanton, CA 94566 (*Sent via E-mail to: DStefani@lpfire.org*)

John Rigter, Livermore-Pleasanton Fire Department, 3560 Nevada Street
Pleasanton, CA 94566(*Sent via E-mail to: jrigter@lpfire.org*)

Brandon Wilken, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (*Sent via E-mail to: BWilken@craworld.com*)

Kiersten Hoey, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A
Emeryville, CA 94608 (*Sent via E-mail to: Khoey@craworld.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

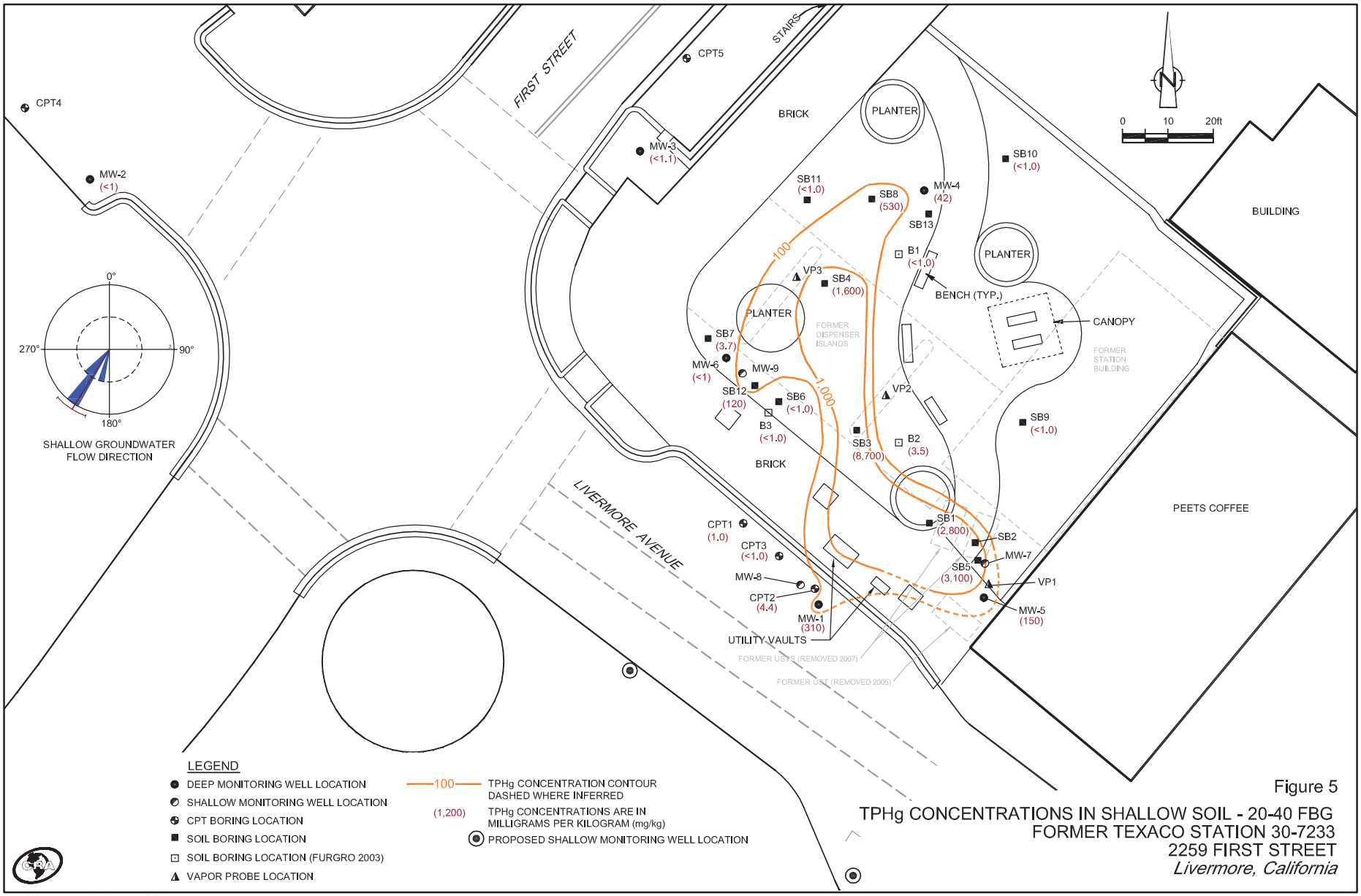


Figure 5

TPHg CONCENTRATIONS IN SHALLOW SOIL - 20-40 FBG
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
Livermore, California

312264-95(010)GN-WA006 APR 14/2011

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B

HHRA

CONESTOGA-ROVERS & ASSOCIATES

651 Colby Drive, Waterloo, Ontario, Canada N2V 1C2
Telephone: (519) 884-0510 Fax: (519) 884-0525
www.CRAworld.com

MEMORANDUM

TO:	Kiersten Hoey	REF. NO.:	312264
FROM:	Tina LePage/April Gowing/kf/1	DATE:	May 22, 2012
RE:	**Lead Risk Evaluation, Former Texaco Station #30-7233 2259 First Street, Livermore, California**		

1.0 INTRODUCTION

On behalf of Chevron Environmental Management Company (Chevron), Conestoga-Rovers & Associates (CRA) has conducted a lead Risk Evaluation (RE) for the Former Texaco Station #30-7233 located at 2259 First Street, California (Site). Soil sampling was conducted at the Site since 2003, following the detection of lead in the shallow soils. The purpose of the RE was to evaluate whether lead detected in site shallow soil could pose risks/hazards that are above acceptable levels to human health based the current use of the Site.

2.0 ANALYTICAL DATA

2.1 LEAD SOIL DATA

The soil analytical data set considered in the RE includes soil data collected during the years 2003, 2006, 2007, 2008, and 2010. In addition, the data set evaluated for the purposes of the RE was limited to include only those soil samples taken from depths of less than 10 feet below ground surface (ft bgs), as the receptors are not expected to be exposed to soil from depths greater than 10 ft bgs. The soil analytical data set applied in the RE therefore includes soil data collected from the following locations: SB6, SB7, SB8, SB9, SSB1, SSB2, SSB3, SSB4, SSB5, SSB6, SSB7, SSB8, SSB9, SSB10, SSB11, VP-1, VP-2, VP-3, EX1, EX2, EX3, EX4, EX5, EX6, P1, B1, B2, and B3. The maximum detected concentration for lead from this data set was compared to the revised screening level of 80 mg/kg under a residential land use scenario as presented in the document entitled, "*Revised California Human Health Screening Level for Lead*" dated May 18, 2009 (OEHHA, 2009). The residential screening level was exceeded by the lead maximum detected concentration of 3,700 mg/kg (B-2; 3 feet below ground surface, 2003) and as such the RE was conducted.

2.2 LEAD 95% UPPER CONFIDENCE LIMIT

For the RE, a 95 percent upper confidence limit (95% UCL) of the mean was calculated for lead. The 95% UCL was determined based on the observed data distribution and the percentage of censored data points (non-detected results) consistent with USEPA's ProUCL Version 4.1.00 software, which was released in May 2010**.** The methods incorporated in this software are described in USEPA (2010) which has been used

as the primary reference document for the UCL methodologies. The 95 % UCL of the lead in soil at the Site was determined to be 611 mg/kg as shown in Table 1.

3.0 LEAD RISK EVALUATION

The basis of this RE was to evaluate the potential for risks to human health due to lead in Site soil.

It should be noted that the Site is located in an area of commercial land use. The intended future land use for the Site is not expected to change and will continue to be used for parkland use. As such, the identified human receptors evaluated in the risk evaluation (RE) were limited to a parkland user (child) and commercial worker (adult) that may be exposed to direct contact with Site soils.

3.1 PARKLAND USER

The parkland user could be a child that may be impacted by lead in soil. The DTSC (2011) lead risk assessment spreadsheet (Lead Spread8) for lead exposure in children was used to determine exposure levels for residents within the parkland, based on the assumption that the child resident is considered to be more sensitive than the adult resident. Given that there is no playground equipment or designated play areas within the park, it has been assumed that a child park user would only visit the park for half a day per week (0.5 day per week). Based on this exposure the Lead Spread8 spreadsheet (see Table 2) calculated a PRG-90 for a child of 1,079 mg/kg, which is above the 95 % UCL of 611 mg/kg.

3.2 COMMERCIAL WORKER

The commercial worker would be an adult that may be impacted by lead in soil. The DTSC (2011) lead risk assessment spreadsheet is a modified version of USEPA's (2009) Adult Lead Model (ALM) which incorporates DTSC recommendations for evaluating commercial worker exposures to lead in soil. Due to the commercial worker mostly working indoors and having limited direct exposure to the lead in soil, it was assumed that the worker may be exposed for 100 days/year (2 day/week for 50 weeks/year) which resulted in the calculated PRG-90 of 795 mg/kg, which is above the soil 95 % UCL of 611 mg/kg for lead. Table 3 presents the calculated PRG-90 for the commercial worker.

4.0 SUMMARY AND CONCLUSIONS

PRG90 values were calculated using the Lead Spread8 spreadsheet and ALM provided by DTSC. The child park user was assumed to be present within the park for 0.5 day per week and the commercial worker was assumed to present within the park for 100 days per year. Based on the above exposure assumptions, the calculated PRG90 values were above the 95 % UCL for lead. As result, the levels of lead within the soil of the park will not result in a concern for either a child or commercial worker use of the park.

5.0 REFERENCES

DTSC, 2011. Lead Risk Assessment Spreadsheet8, California Department of Toxic Substances Control (DTSC), September 2011.

OEHHA, 2009. Revised California Human Health Screening Level for Lead, Office of Environmental Health Hazard Assessment (OEHHA), May 18, 2009.

USEPA, 2009. Adult Lead Model (ALM) spreadsheet, United States Environmental Protection Agency, Washington, DC, (MS Excel). http://www.epa.gov/superfund/lead/products.htm

USEPA, 2010. ProUCL Version 4.1.00 Technical Guide (Draft). United States Environmental Protection Agency, Office of Research and Development, Washington DC. EPA/600/R-07/041, May 2010.

TABLE 1

EXPOSURE POINT CONCENTRATION (EPC) SUMMARY FOR CHEMICALS OF POTENTIAL CONCERN IN SOIL
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
LIVERMORE, CALIFORNIA

Scenario Timeframe: Current/Future
Medium: Soil
Exposure Medium: Soil

Chemical of Potential Concern	*Units*	*Arithmetic Mean*	*95% UCL of Normal Data*	*Maximum Detected Concentration*	*Maximum Qualifier*	*EPC Units*	*Reasonable Maximum Exposure*		
							Medium EPC Value	*Medium EPC Statistic*	*Medium EPC Rationale*
Metals									
Lead	mg/kg	1.76E+02	(1)	3.70E+03		mg/kg	6.11E+02	95% UCL-NP	W-Test (4)

Notes:

For data sets with non-detects, the Kaplan-Meier method was used (per USEPA 2006).

W-Test : Developed by Shapiro and Wilk for data sets with under 50 samples. Developed by Shapiro and Francia for data sets with over 50 samples but under 100.
Refer to USEPA Supplemental Guidance to RAGS: Calculating the Concentration Term (RAGS, 1992), OSWER Directive 9285.7-081, May 1992.

Statistics: Maximum Detected Value (Max); 95% UCL of Normal Data (95% UCL-N); 95% UCL of Log-transformed Data (95% UCL-L);
95% UCL of Gamma distributed data (95% UCL-G); Non-parametric method used to Determine 95% UCL (95% UCL-NP).

(1) Data set is neither normally, gamma or lognormally distributed. A non-parametric UCL is required.

(2) Data set is lognormally distributed.

(3) Data set is gamma distributed.

(4) Shapiro-Wilk W Test was used for data sets where n<50. Shapiro-Francia W Test was used for data sets where 50<n>100.

TABLE 2

LEAD RISK ASSESSMENT SPREADSHEET 8 FOR PARKLAND USER
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
LIVERMORE, CALIFORNIA

INPUT	
MEDIUM	**LEVEL**
Lead in Soil/Dust (µg/g)	611
Respirable Dust (µg/m^3)	1.5

OUTPUT						
Percentile Estimate of Blood Pb (µg/dl)						**PRG-90**
	50th	90th	95th	98th	99th	(µg/g)
BLOOD Pb, CHILD	0.3	0.6	0.7	0.8	0.9	**1079**
BLOOD Pb, PICA CHILD	0.6	1.1	1.3	1.6	1.8	542

EXPOSURE PARAMETERS		
	units	**children**
Days per week	days/wk	0.5
Geometric Standard Deviation	unitless	1.6
Blood lead level of concern	µg/dl	1
Skin area, residential	cm^2	2900
Soil adherence	µg/cm^2	200
Dermal uptake constant	(µg/dl)/(µg/day)	0.0001
Soil ingestion	mg/day	100
Soil ingestion, pica	mg/day	200
Ingestion constant	(µg/dl)/(µg/day)	0.16
Bioavailability	unitless	0.44
Breathing rate	m^3/day	6.8
Inhalation constant	(µg/dl)/(µg/day)	0.192

PATHWAYS						
CHILDREN	**typical**			**with pica**		
	Pathway contribution			**Pathway contribution**		
Pathway	**PEF**	**µg/dl**	**percent**	**PEF**	**µg/dl**	**percent**
Soil Contact	4.1E-6	0.00	1%		0.00	0%
Soil Ingestion	5.0E-4	0.31	99%	1.0E-3	0.61	100%
Inhalation	1.4E-7	0.00	0%		0.00	0%

Sources:

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TABLE 3

CALCULATIONS OF BLOOD LEAD CONCENTRATIONS (PbBs) AND PRELIMINARY REMEDIATION GOAL (PRG) FOR COMMERCIAL WORKER
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
LIVERMORE, CALIFORNIA

Variable	*Description of Variable*	*Units*	
PbS	Soil lead concentration	µg/g or ppm	611
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	µg/dL per ug/day	0.4
GSD_i	Geometric standard deviation PbB	--	1.8
PbB_0	Baseline PbB	µg/dL	0.0
IR_S	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050
$AF_{S,D}$	Absorption fraction (same for soil and dust)	--	0.12
$EF_{S,D}$	Exposure frequency (same for soil and dust)	days/yr	100
$AT_{S,D}$	Averaging time (same for soil and dust)	days/yr	365
PbB_{adult}	PbB of adult worker, geometric mean	µg/dL	0.4
$PbB_{fetal,0.90}$	90th percentile PbB among fetuses of adult workers	µg/dL	0.8
PbB_t	Target PbB level of concern (e.g., 10 µg/dL)	µg/dL	1.0
$P(PbB_{fetal} > PbB_t)$	Probability that fetal PbB > PbB_t, assuming lognormal distribution	%	4.2%

PRG90 **795**

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