Carryl MacLeod
Project Manager
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Chevron Environmental Management Company
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March 26, 2015

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

Re: Former Texaco Service Station 307233
2259 First Street
Livermore, California
ACEHS Case RO0002908

I accept the *Final Plans for Park Grade and Proposed Soil Sampling Depths*.

I agree with the scope of work 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 document 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: *Final Plans for Park Grade and Proposed Soil Sampling Depths*

CONESTOGA-ROVERS & ASSOCIATES

10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
www.CRAworld.com

March 26, 2015 Reference No. 312264

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

Re: Final Plans for Park Grade and Proposed Soil Sampling Depths
Former Chevron Service Station 307233
2259 First Street
Livermore, California
Agency Case RO2908

Dear Mr. Wickham:

On behalf of Chevron Environmental Management Company (Chevron), Conestoga-Rovers & Associates (CRA) is submitting *Final Plans for Park Grade and Proposed Soil Sampling Depths* associated with park redevelopment at the site referenced above (Figure 1). In a letter dated December 19, 2013 (Attachment A), Alameda County Environmental Health (ACEH) requested that Chevron and the City of Livermore (City) submit plans for the final park grade along with the proposed depths of the lead delineation soil samples. The submittal date for the document was subsequently extended to March 27, 2015 as outlined in e-mail correspondence on February 24, 2015. The City has stated that the park redevelopment is currently scheduled to begin in January 2016. The City provided a preliminary park design (Attachment B) to Chevron on January 8, 2015. The park redevelopment calls for removal of all current park features, including trees and soil berms (which are approximately 2 feet above the proposed finished grade). The City plans indicate the majority of the park will be covered by hardscaping.

In preparation for the planned Mills Square Park redevelopment, CRA collected additional soil samples from the site between October 2014 and January 2015. CRA performed a lead speciation study to provide additional analytical data for lead and to evaluate if shallow lead impacts detected across the site were of the same origin as those detected in the former underground storage tank (UST) area. A summary of the recent lead study and plan for removal of lead-impacted soil during redevelopment are presented below.

Lead Speciation Activities

In October 2014 and January 2015, CRA oversaw All Well Abandonment (October 2014) and Penecore Drilling (January 2015) advance soil borings HA-1 through HA-7 (Figure 2) to depths ranging from 2.5 to 9 feet below grade (fbg). Work was conducted under Zone 7 Water Agency drilling permits 2014141 and 2015002 (Attachment C). Soil samples were sent to Applied Speciation and Consulting, LLC for total lead and lead speciation analysis. The analytical report is included in Attachment D. The results are summarized in Table 1 and shown graphically on Figure 2.

Total lead results ranged from 5.29 milligrams per kilogram (mg/kg) in HA-6 at 3 fbg (former UST pit) to 314 mg/kg in HA-2 at 4.5 fbg (former pump island). Additionally, samples from HA-1, HA-6, and HA-7 were collected in the vicinity of the highest historic lead concentrations (EX1, EX6, and B2). As shown on Figure 2, the results from HA-1, HA-6, and HA-7 are an order of magnitude lower than the results from EX1, EX6, and B2, indicating that the highest lead results are, at a minimum, limited and localized. Lead speciation analysis indicates no significant difference in any of the samples except for HA-4, which had a different isotope signature.

Proposed Lead-Impacted Soil Management Plan

It does not appear that direct contact exposure to lead in shallow soils is likely at the site, given the nature of the redevelopment plans, and further soil sampling does not appear warranted. CRA reaches these conclusions for the following reasons:

- The City's park redevelopment plan will require that the site be excavated at least 1-foot below grade to facilitate compaction of sub-base for the hardscaping. As shown on Figure 2, only low lead concentrations were reported at depth in the planned landscaped area near the northeast corner of the site.
- A soil management plan (SMP) has been prepared and submitted to ACEH to address excavation and proper disposal of impacted soil. The SMP also addresses any soils that need to be excavated below the hardscape sub-grade for footings and landscaping.

- A human health risk assessment for lead has been completed.[1] Results show that there is not a risk to park users or commercial workers from direct contact to current lead levels at the site; removal of a minimum of at least 1-foot of surface soil will further reduce any potential risk.
- Sufficient data, including that generated during the lead speciation study, has been collected for pre-profiling of soil that is planned to be excavated and disposed of.

Given these considerations, ACEH's concern for the direct contact exposure to lead has been addressed and further soil sampling does not appear warranted. The SMP addresses the proper disposal of lead impacted soil during redevelopment. Chevron and the City are currently discussing details of the park redevelopment and implementation of the SMP.

[1] *Human Health Risk Assessment*, Conestoga Rovers and Associates, June 21, 2012

Please contact Brian Silva at (916) 889-8908 if you have any questions or require additional information.

Sincerely,

Conestoga-Rovers & Associates

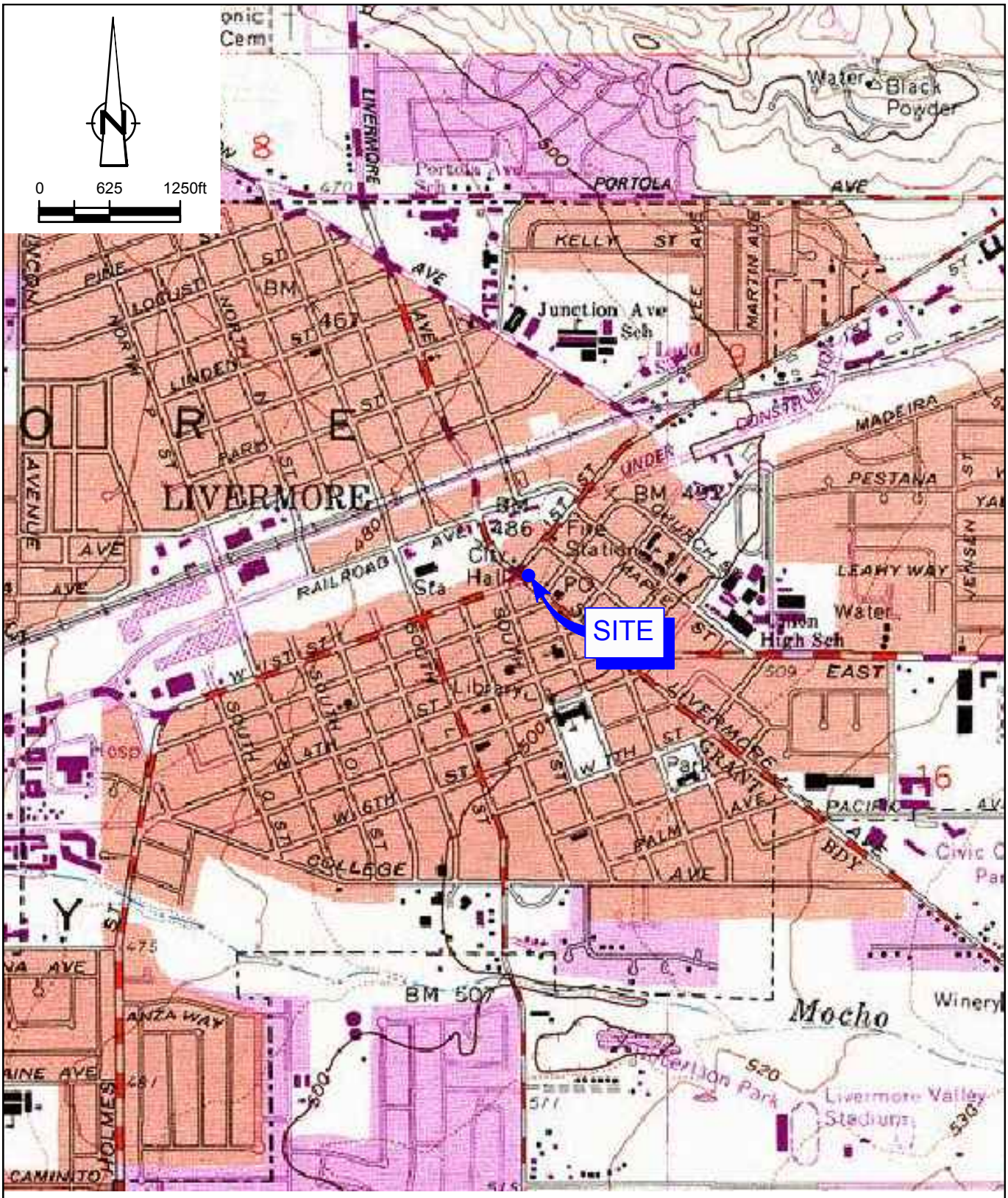
Brian Silva Greg Barclay, PG 6260

BAS/aa/34

Figure 1	Vicinity Map
Figure 2	Site Plan with Proposed Shallow Soil Sample Locations
Table 1	Cumulative Soil Analytical Data
Attachment A	Regulatory Correspondence
Attachment B	Park Renovation Design Figure
Attachment C	Zone 7 Water Agency Drilling Permits
Attachment D	Laboratory Analytical Report

cc: Carryl MacLeod, Chevron Environmental Management Company (*electronic only)*
Eric Uranaga, City of Livermore Community Development

Figures



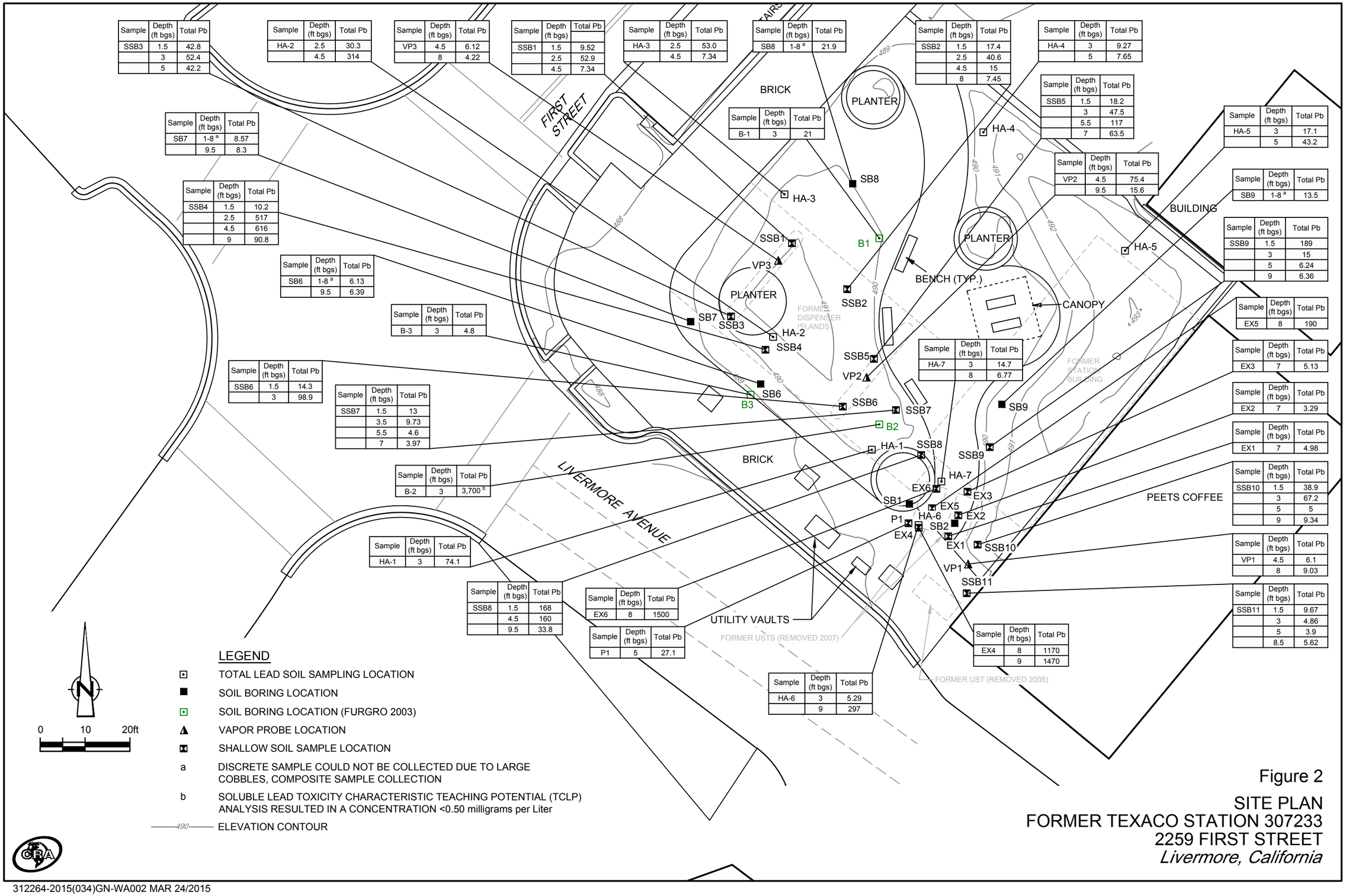
SOURCE: TOPO! MAPS.

Figure 1

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

CRA

312264-2015(034)GN-WA001 MAR 20/2015



Sample	Depth (ft bgs)	Total Pb
SSB3	1.5	42.8
	3	52.4
	5	42.2

Sample	Depth (ft bgs)	Total Pb
HA-2	2.5	30.3
	4.5	314

Sample	Depth (ft bgs)	Total Pb
VP3	4.5	6.12
	8	4.22

Sample	Depth (ft bgs)	Total Pb
SSB1	1.5	9.52
	2.5	52.9
	4.5	7.34

Sample	Depth (ft bgs)	Total Pb
HA-3	2.5	53.0
	4.5	7.34

Sample	Depth (ft bgs)	Total Pb
SB8	1-8 [a]	21.9

Sample	Depth (ft bgs)	Total Pb
SSB2	1.5	17.4
	2.5	40.6
	4.5	15
	8	7.45

Sample	Depth (ft bgs)	Total Pb
HA-4	3	9.27
	5	7.65

Sample	Depth (ft bgs)	Total Pb
SSB5	1.5	18.2
	3	47.5
	5.5	117
	7	63.5

Sample	Depth (ft bgs)	Total Pb
HA-5	3	17.1
	5	43.2

Sample	Depth (ft bgs)	Total Pb
SB7	1-8 [a]	8.57
	9.5	8.3

Sample	Depth (ft bgs)	Total Pb
B-1	3	21

Sample	Depth (ft bgs)	Total Pb
VP2	4.5	75.4
	9.5	15.6

Sample	Depth (ft bgs)	Total Pb
SB9	1-8 [a]	13.5

Sample	Depth (ft bgs)	Total Pb
SSB4	1.5	10.2
	2.5	517
	4.5	616
	9	90.8

Sample	Depth (ft bgs)	Total Pb
SSB9	1.5	189
	3	15
	5	6.24
	9	6.36

Sample	Depth (ft bgs)	Total Pb
SB6	1-8 [a]	6.13
	9.5	6.39

Sample	Depth (ft bgs)	Total Pb
B-3	3	4.8

Sample	Depth (ft bgs)	Total Pb
EX5	8	190

Sample	Depth (ft bgs)	Total Pb
HA-7	3	14.7
	8	6.77

Sample	Depth (ft bgs)	Total Pb
EX3	7	5.13

Sample	Depth (ft bgs)	Total Pb
SSB6	1.5	14.3
	3	98.9

Sample	Depth (ft bgs)	Total Pb
SSB7	1.5	13
	3.5	9.73
	5.5	4.6
	7	3.97

Sample	Depth (ft bgs)	Total Pb
EX2	7	3.29

Sample	Depth (ft bgs)	Total Pb
EX1	7	4.98

Sample	Depth (ft bgs)	Total Pb
B-2	3	3,700 [b]

Sample	Depth (ft bgs)	Total Pb
SSB10	1.5	38.9
	3	67.2
	5	5
	9	9.34

Sample	Depth (ft bgs)	Total Pb
HA-1	3	74.1

Sample	Depth (ft bgs)	Total Pb
VP1	4.5	6.1
	8	9.03

Sample	Depth (ft bgs)	Total Pb
SSB8	1.5	168
	4.5	160
	9.5	33.8

Sample	Depth (ft bgs)	Total Pb
EX6	8	1500

Sample	Depth (ft bgs)	Total Pb
SSB11	1.5	9.67
	3	4.86
	5	3.9
	8.5	5.62

Sample	Depth (ft bgs)	Total Pb
P1	5	27.1

Sample	Depth (ft bgs)	Total Pb
EX4	8	1170
	9	1470

Sample	Depth (ft bgs)	Total Pb
HA-6	3	5.29
	9	297

LEGEND

- TOTAL LEAD SOIL SAMPLING LOCATION
- SOIL BORING LOCATION
- SOIL BORING LOCATION (FURGRO 2003)
- VAPOR PROBE LOCATION
- SHALLOW SOIL SAMPLE LOCATION
- a DISCRETE SAMPLE COULD NOT BE COLLECTED DUE TO LARGE COBBLES, COMPOSITE SAMPLE COLLECTION
- b SOLUBLE LEAD TOXICITY CHARACTERISTIC TEACHING POTENTIAL (TCLP) ANALYSIS RESULTED IN A CONCENTRATION <0.50 milligrams per Liter
- 490 ELEVATION CONTOUR

Figure 2

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

312264-2015(034)GN-WA002 MAR 24/2015

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	***Direct Exposure Commercial/Industrial Worker***		***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***
OEHAA	***Residential Land Use***		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***80***
OEHAA	***Commercial Land Use***		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***260***
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	--	--	--
MW-1	04/07/2010	59.5	<10	<4.0	<1	<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												
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	Direct Exposure Commercial/Industrial Worker		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-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	--	--	--

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)									
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Table K-2	Direct Exposure Commercial/Industrial Worker		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

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	Direct Exposure Commercial/Industrial Worker		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[d]	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	--

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	Direct Exposure Commercial/Industrial Worker		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
SSB11	02/06/2008	8.5	--	--	--	--	--	--	--	--	--	5.62

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	Direct Exposure Commercial/Industrial Worker		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
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	Direct Exposure Commercial/Industrial Worker		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)	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	--	--
2014/2015 Lead Speciation Investigation												
HA-1	10/07/2014	3	--	--	--	--	--	--	--	--	--	74.1
HA-2	10/07/2014	2.5	--	--	--	--	--	--	--	--	--	30.3
HA-2	10/07/2014	4.5	--	--	--	--	--	--	--	--	--	**314**
HA-3	10/07/2014	2.5	--	--	--	--	--	--	--	--	--	53.0
HA-3	10/07/2014	4.5	--	--	--	--	--	--	--	--	--	7.34
HA-4	10/08/2014	3	--	--	--	--	--	--	--	--	--	9.27
HA-4	10/08/2014	5	--	--	--	--	--	--	--	--	--	7.65
HA-5	10/08/2014	3	--	--	--	--	--	--	--	--	--	17.1
HA-5	10/08/2014	5	--	--	--	--	--	--	--	--	--	43.2
HA-6	01/20/2015	3	--	--	--	--	--	--	--	--	--	5.29
HA-6	01/20/2015	9	--	--	--	--	--	--	--	--	--	**297**
HA-7	01/20/2015	3	--	--	--	--	--	--	--	--	--	14.7
HA-7	01/20/2015	8	--	--	--	--	--	--	--	--	--	6.77

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	Direct Exposure Commercial/Industrial Worker		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.
OEHAA = Office of Environmental Health Hazard Assessment's *Revised California Human Health Screening Level for Lead* dated May 18, 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 Correspondence

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 19, 2013

Ms. Carryl MacLeod (*Sent via E-mail to: cmacleod@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 Ms. MacLeod and Mr. Uranga:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above referenced site including the documents entitled, "*Work Plan for Near-Surface Soil Sampling*," dated October 13, 2013 (Work Plan). The Work Plan, which was prepared on behalf of Chevron Environmental Management Company by Conestoga Rovers & Associates (CRA), proposes the collection of soil samples in a grid pattern to adequately define the extent of lead in shallow soil. The depths for collection of the soil samples are not specified in the Work Plan and are to be based on the final plans for redevelopment of the park to assure that shallow soil containing elevated concentrations of lead is removed from the final grade for the park.

The Work Plan indicates that the City of Livermore expects to start park renovations in the spring of 2015. Based on this tentative schedule for park redevelopment, we request that you submit plans for the final park grade along with the proposed depths of the soil samples no later than January 15, 2015.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **January 30, 2014** – Quarterly Groundwater Monitoring Report and Summary of Sulfate Application – Fourth Quarter 2013
  File to be named: GWM_IRR_R_yyyy-mm-dd RO2908

- **January 15, 2015** – Final Plans for Park Grade and Proposed Soil Sampling Depths
  File to be named: WP_R_yyyy-mm-dd RO2908

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.

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: 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*)

Brian Silva, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107
Rancho Cordova, CA 95670 (*Sent via E-mail to: bsilva@craworld.com*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)
GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. 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, 7835, 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, late 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 SCP)	**REVISION DATE:** July 25, 2012
	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 (petroleum UST and SCP) 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 .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 ://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 .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

Park Renovation Design Figure

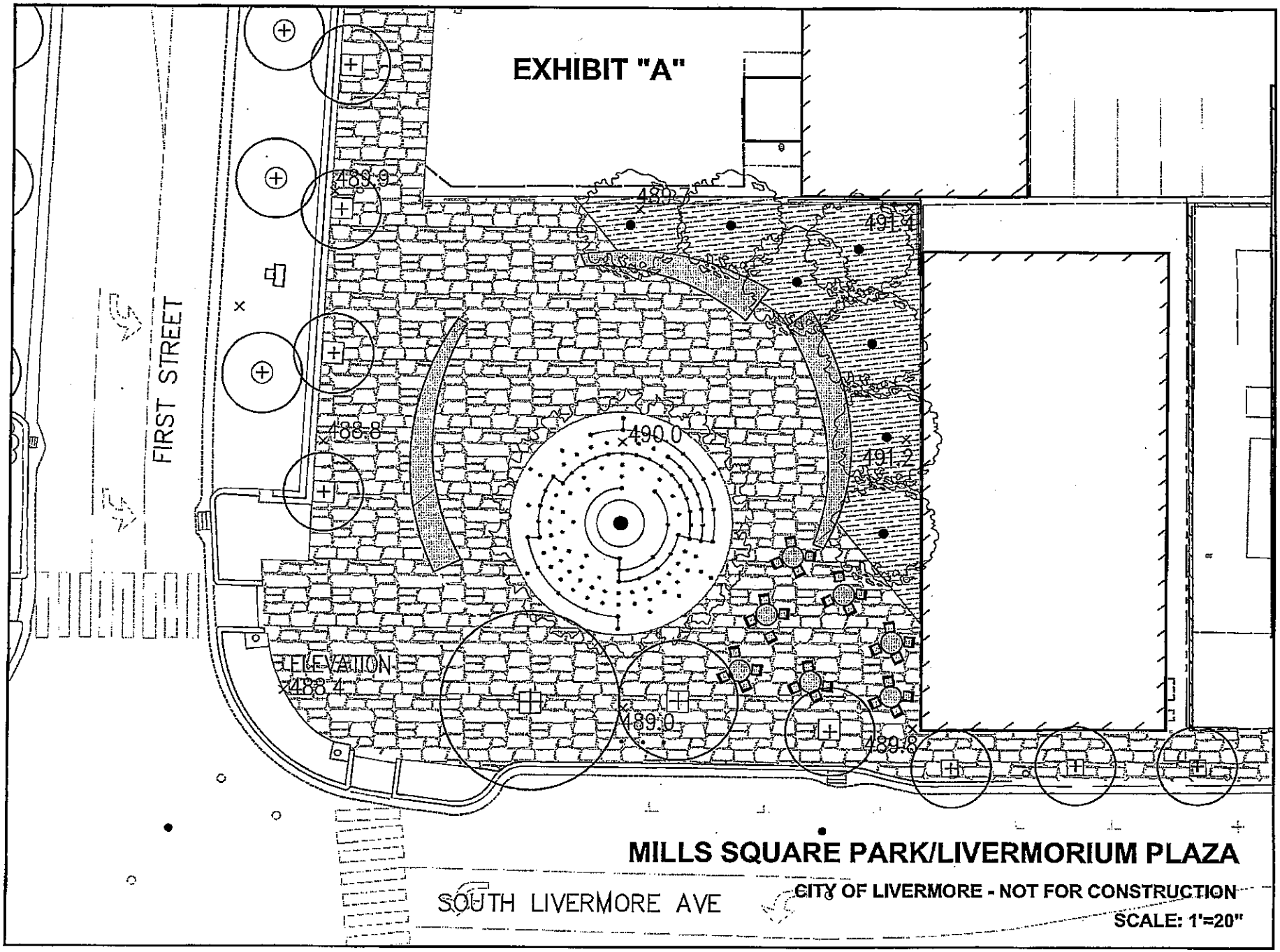


EXHIBIT "A"
FIRST STREET
489.9
488.8
490.0
491.2
ELEVATION
488.4
489.0
489.8
SOUTH LIVERMORE AVE
MILLS SQUARE PARK/LIVERMORIUM PLAZA
CITY OF LIVERMORE - NOT FOR CONSTRUCTION
SCALE: 1'=20"

Attachment C

Zone 7 Water Agency Drilling Permits

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

5056

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2259 First Street
Livermore, CA

Coordinates Source _____ ft. Accuracy∀ _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN _____

CLIENT
Name Conestoga-Rovers & Associates
Address 10969 Trade Center Dr. ste. 107 Phone 916-858-8900
City Rancho Cordova, CA Zip 95670

APPLICANT
Name Bryan Sandor
Email bsandor@crawworld.com Fax 916-858-8999
Address 10969 Trade Center Dr. ste 107 Phone 916-858-8916
City Rancho Cordova, CA Zip 95670

TYPE OF PROJECT:

Well Construction	__	Geotechnical Investigation	__
Well Destruction	__	Contamination Investigation	X
Cathodic Protection	__	Other _____	__

PROPOSED WELL USE:

Domestic	__	Irrigation	__
Municipal	__	Remediation	__
Industrial	__	Groundwater Monitoring	__
Dewatering	__	Other Soil Borings	X

DRILLING METHOD:
Mud Rotary __ Air Rotary __ Hollow Stem Auger __
Cable Tool __ Direct Push __ Other Hand Auger X

DRILLING COMPANY All Well Abandonment

DRILLER'S LICENSE NO. 948359

WELL SPECIFICATIONS: N/A
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

SOIL BORINGS:
Number of Borings 7 Maximum
Hole Diameter 3 in. Depth 9 ft.

ESTIMATED STARTING DATE 10-7-14
ESTIMATED COMPLETION DATE 10-7-14

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 9-8-14

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 2014141
WELL NUMBER _____
APN 97-0110-005-03

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 9/23/14
Wyman Hong

Revised: January 4, 2010

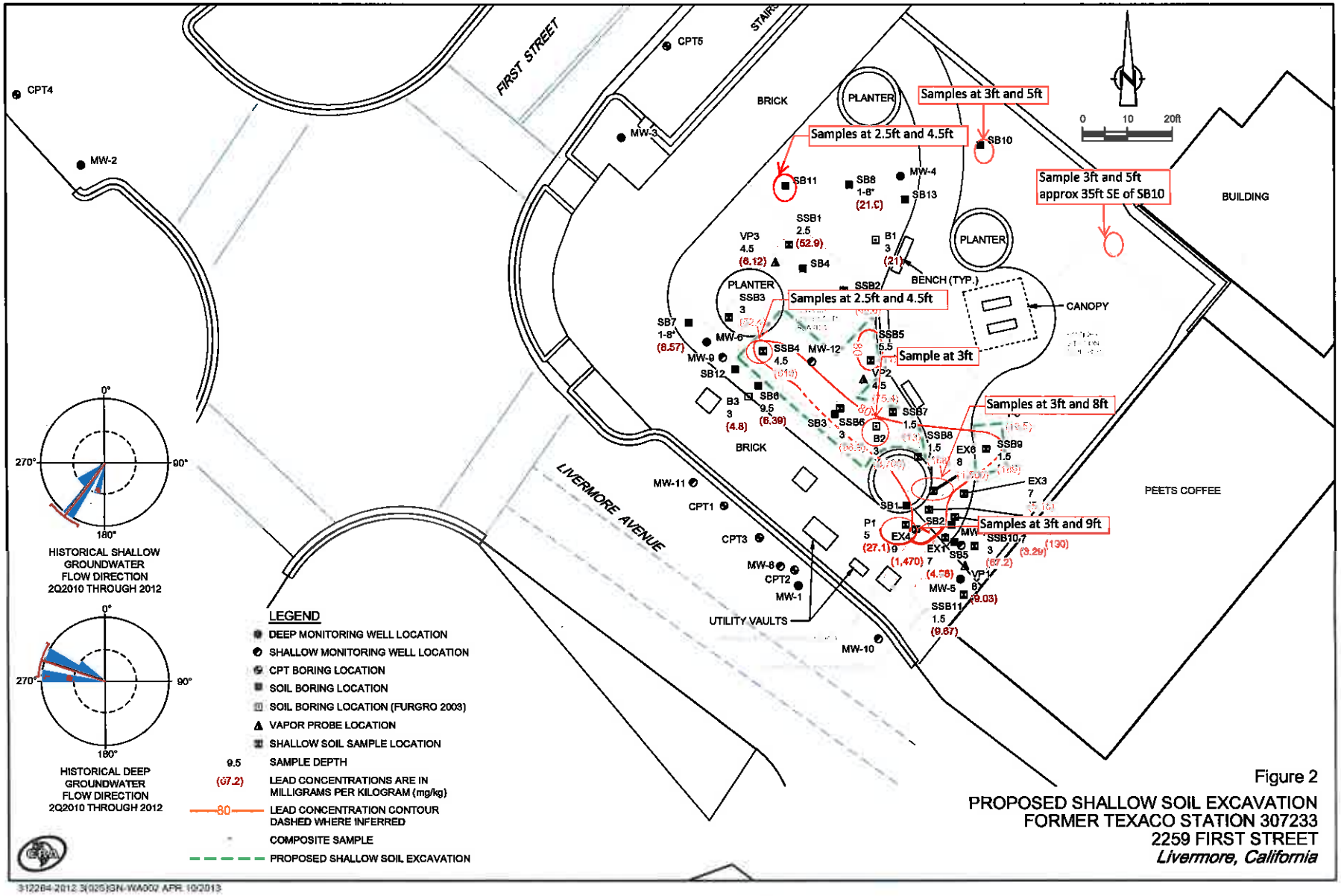


Figure 2
PROPOSED SHALLOW SOIL EXCAVATION
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312284-2012.3(025)GN-WA002 APR 10/2013

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Former Texaco 307233
2259 First St.
Livermore, CA

Coordinates Source _____ ft. Accuracy _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN _____

CLIENT
Name Chevron Emc
Address 6121 Bollinger Canyon Rd Phone _____
City San Ramon Zip 94583

APPLICANT
Name CRA - Co: Ben Summersett
Email bsummersett@craworld.com Fax 916-889-8999
Address 10969 Trade Center Dr. #107 Phone 916-884-8926
City Rancho Cordova Zip 95670

TYPE OF PROJECT:

Well Construction	__	Geotechnical Investigation	__
Well Destruction	__	Contamination Investigation	X
Cathodic Protection	__	Other _____	__

PROPOSED WELL USE:

Domestic	__	Irrigation	__
Municipal	__	Remediation	__
Industrial	__	Groundwater Monitoring	__
Dewatering	__	Other Soil borings	X

DRILLING METHOD:
Mud Rotary __ Air Rotary __ Hollow Stem Auger __
Cable Tool __ Direct Push X Other air knife X

DRILLING COMPANY ~~Vapor Tech Services~~ PENECORE DRILLING

DRILLER'S LICENSE NO. ~~916085~~ C57# 906899

WELL SPECIFICATIONS:
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

SOIL BORINGS:
Number of Borings 2 Maximum
Hole Diameter 8 in. Depth 10 ft.

ESTIMATED STARTING DATE ~~2-3-2015~~ 1-20-15
ESTIMATED COMPLETION DATE 2-3-2015

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 12-19-14

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2015002
WELL NUMBER _____
APN 97-0110-005-03

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

(G.) SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 1/6/15
Wyman Hong

Revised: January 4, 2010

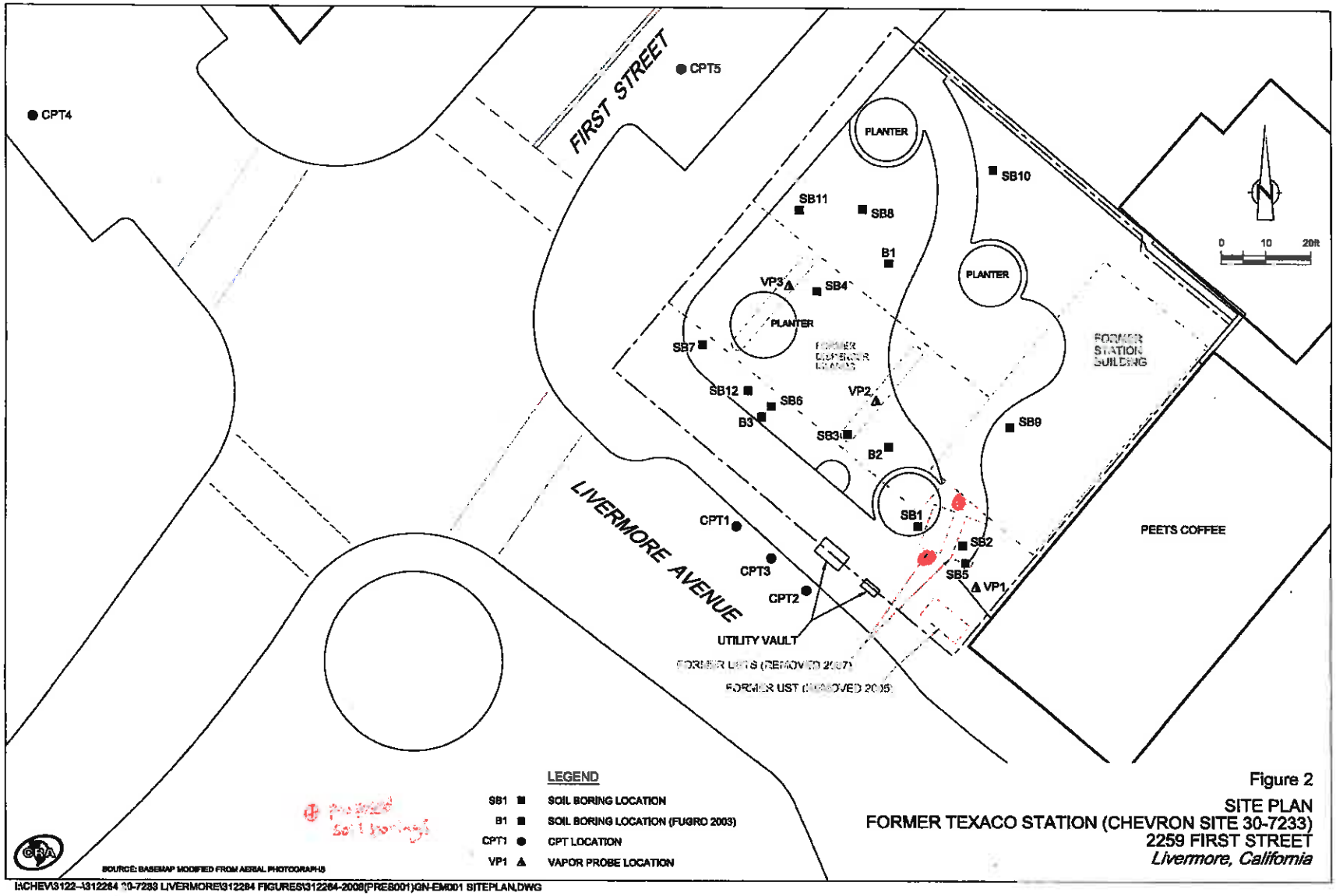


Figure 2
SITE PLAN
FORMER TEXACO STATION (CHEVRON SITE 30-7233)
2259 FIRST STREET
Livermore, California

I:\CHEV\3122--\312264 30-7233 LIVERMORE\312264 FIGURES\312264-2008(PRE8001)GN-EM001 SITEPLAN.DWG


CHEVRON
2251 - 1ST STREET, LIVERMORE
APN: 97-0110-006-03

Attachment D

Laboratory Analytical Report

APPLIED SPECIATION
AND CONSULTING, LLC

18804 Northcreek Parkway Bothell, WA, 98011
Tel: (425) 483-3300 Fax: (425) 483-9818
www.appliedspeciation.com

February 11, 2015

Brian Silva
Conestoga-Rovers & Associates
10969 Trade Center Drive, Suite 107
Rancho Cordova, CA 95670
(916) 889-8908

Mr. Silva,

Attached is the report associated with thirteen (13) soil samples submitted for total lead and lead isotopic ratio testing on October 13, 2014 and January 21, 2015. The samples were received on October 14, 2014 and January 22, 2015 in sealed containers at -0.6˚C and 1.7˚C, respectively. Total lead quantitation was performed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). Lead isotopic ratio testing was performed by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Any issues associated with the analyses are addressed in the following report.

If you have any questions, please feel free to contact me at your convenience.

Sincerely,

Ben Wozniak

Ben Wozniak
Project Manager
Applied Speciation and Consulting, LLC

Applied Speciation and Consulting, LLC

Report Prepared for:

Brian Silva
Conestoga-Rovers & Associates
10969 Trade Center Drive, Suite 107
Rancho Cordova, CA 95670

February 11, 2015

1. Sample Reception

Thirteen (13) soil samples were submitted for total lead and lead isotopic ratio testing on October 13, 2014 and January 21, 2015. The samples were received in acceptable condition on October 14, 2014 and January 22, 2015 in sealed containers at -0.6˚C and 1.7˚C, respectively. All packing materials were intact and no visible signs of tampering were noticeable.

The samples were received on the day of reception in a laminar flow clean hood void of trace metals contamination and ultra-violet radiation. Upon reception, each sample was designated a discrete sample identifier. All solid samples were stored in a secure, monitored freezer (maintained at a temperature < -10°C), until digestion and analysis could be performed.

2. Sample Preparation

All sample preparation is performed in laminar flow clean hoods known to be free from trace metals contamination. All applied water for dilutions and sample preservatives are also monitored for contamination to account for any biases associated with the sample results.

Digestion for Total Lead and Lead Isotopic Ratio Testing Prior to all analyses, a known mass of each sample was weighed into a polypropylene vessel and then digested with aliquots of concentrated HNO_3 and concentrated HCl (*aqua regia*) in a hot block digestion apparatus. The resulting sample digests were then diluted to 50mL with reagent water prior to the analyses, as described below.

3. Sample Analysis

Total Lead Quantitation by ICP-QQQ-MS All sample digests for total lead quantitation were analyzed by inductively coupled plasma triple quadrupole mass spectrometry (ICP-QQQ-MS). Aliquots of each sample digest are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through an initial quadrupole (Q1), which filters the target masses prior to their entrance into

a second chamber. The second chamber contains specific reactive gasses or collision gasses that preferentially react with interfering ions of the same target mass to charge ratios (m/z). The ions then exit the collision/reaction chamber into the mass analyzer (Q2). A solid-state detector detects ions transmitted through the mass analyzer, on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

Lead Isotopic Ratio Testing by ICP-DRC-MS All sample digests for isotopic ratio testing were analyzed by inductively coupled plasma dynamic reaction cell mass spectrometry (ICP-DRC-MS). Aliquots of each sample are introduced into a radio frequency (RF) plasma where energy-transfer processes cause desolvation, atomization, and ionization. The ions are extracted from the plasma through a differentially-pumped vacuum interface and travel through a pressurized chamber (DRC) containing a specific reactive gas which reduces the kinetic energy of the ions, producing a more homogenous ion beam. A solid-state detector detects ions transmitted through the mass analyzer, on the basis of their mass-to-charge ratio (m/z), and the resulting current is processed by a data handling system.

4. Analytical Issues

No significant issues were encountered with the requested analyses. All quality control parameters associated with these samples were within acceptance limits.

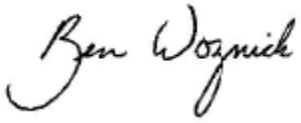
It should be noted that nine replicate analyses are performed for each sample for the lead isotopic ratio testing to attain internal counting statistics. The internal counting statistics are represented in the sample results section of this report as the percent relative standard deviation (% RSD). For each sample the standard deviation of the nine replicates is then multiplied by the student's t-value of 5.041 (corresponding to a 99.9% confidence level) to attain the internal variability associated with the measurement.

External quality control in the form of triplicate analyses is performed for the lead isotopic ratio testing to identify the external variability associated with the preparatory procedures and the analytical platform. The external precision identifies that the preparatory and replicate analyses of the samples has minimal impact on the representativeness of the lead isotopic ratio data presented in this report.

It should also be noted that the estimated method detection limit (eMDL) for total lead is calculated using the standard deviation of the four method blanks prepared and analyzed concurrently with the submitted samples.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,



Ben Wozniak
Project Manager
Applied Speciation and Consulting, LLC

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample ID	HA-1-3	HA-2-2.5	HA-2-4.5	HA-3-2.5
Sample Date	10/7/2014	10/7/2014	10/7/2014	10/7/2014
Reception Date	10/14/2015	10/14/2015	10/14/2015	10/14/2015
Analysis Date	2/4/2015	2/5/2015	2/5/2015	2/5/2015
$^{204}Pb/^{206}Pb$ Ratio*	0.05537 ± 0.00051	0.05505 ± 0.00035	0.05507 ± 0.00026	0.05492 ± 0.00040
% RSD**	0.181	0.126	0.093	0.145
$^{207}Pb/^{206}Pb$ Ratio*	0.85217 ± 0.00211	0.83368 ± 0.00272	0.85083 ± 0.00156	0.84380 ± 0.00223
% RSD**	0.049	0.065	0.036	0.052
$^{208}Pb/^{206}Pb$ Ratio*	2.0747 ± 0.0036	2.0407 ± 0.0069	2.0853 ± 0.0037	2.0600 ± 0.0050
% RSD**	0.034	0.067	0.035	0.048

* All ratios are reported as the mean of nine replicate measurements ± t*s (t=5.041, for 99.9% confidence level)

** % RSD = Percent Relative Standard Deviation of the nine (9) replicates

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample ID	HA-3-4.5	HA-4-3	HA-4-5
Sample Date	10/7/2014	10/8/2014	10/8/2014
Reception Date	10/14/2015	10/14/2015	10/14/2015
Analysis Date	2/5/2015	2/5/2015	2/5/2015
$^{204}Pb/^{206}Pb$ Ratio*	0.05844 ± 0.00038	0.05641 ± 0.00038	0.05623 ± 0.00058
% RSD**	0.128	0.135	0.205
$^{207}Pb/^{206}Pb$ Ratio*	0.80855 ± 0.00342	0.81079 ± 0.00304	0.81717 ± 0.00254
% RSD**	0.084	0.074	0.062
$^{208}Pb/^{206}Pb$ Ratio*	1.9747 ± 0.0115	1.9775 ± 0.0099	1.9998 ± 0.0040
% RSD**	0.115	0.100	0.040

* All ratios are reported as the mean of nine replicate measurements ± t*s (t=5.041, for 99.9% confidence level)

** % RSD = Percent Relative Standard Deviation of the nine (9) replicates

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample ID	HA-5-3	HA-5-5	HA-6-3
Sample Date	10/8/2015	10/8/2015	1/20/2015
Reception Date	10/14/2015	10/14/2015	1/22/2015
Analysis Date	2/5/2015	2/5/2015	2/5/2015
$^{204}Pb/^{206}Pb$ Ratio*	0.05432 ± 0.00048	0.05532 ± 0.00047	0.05985 ± 0.00049
% RSD**	0.175	0.170	0.162
$^{207}Pb/^{206}Pb$ Ratio*	0.80304 ± 0.00320	0.84882 ± 0.00218	0.81252 ± 0.00405
% RSD**	0.079	0.051	0.099
$^{208}Pb/^{206}Pb$ Ratio*	1.9818 ± 0.0049	2.0689 ± 0.0049	1.9932 ± 0.0094
% RSD**	0.049	0.047	0.094

* All ratios are reported as the mean of nine replicate measurements ± t*s (t=5.041, for 99.9% confidence level)

** % RSD = Percent Relative Standard Deviation of the nine (9) replicates

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample ID	HA-6-9	HA-7-3	HA-7-8
Sample Date	1/20/2015	1/20/2015	1/20/2015
Reception Date	1/22/2015	1/22/2015	1/22/2015
Analysis Date	2/5/2015	2/5/2015	2/5/2015
$^{204}Pb/^{206}Pb$ Ratio*	0.05415 ± 0.00040	0.05509 ± 0.00036	0.05695 ± 0.00057
% RSD**	0.148	0.130	0.197
$^{207}Pb/^{206}Pb$ Ratio*	0.84416 ± 0.00290	0.83448 ± 0.00249	0.82347 ± 0.00319
% RSD**	0.068	0.059	0.077
$^{208}Pb/^{206}Pb$ Ratio*	2.0568 ± 0.0077	2.0456 ± 0.0063	2.0202 ± 0.0076
% RSD**	0.075	0.061	0.074

* All ratios are reported as the mean of nine replicate measurements ± t*s (t=5.041, for 99.9% confidence level)

** % RSD = Percent Relative Standard Deviation of the nine (9) replicates

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Pb Isotope QC

Sample ID	NIST 981	NIST 981	NIST 981		External Precision
Date Analyzed	2/4/2015	2/4/2015	2/4/2015		
	Rep 1	Rep 2	Rep 3	Mean	% RSD
$^{204}Pb/^{206}Pb$	0.05906 ± 0.00031	0.05905 ± 0.00042	0.05908 ± 0.00040	0.05906 ± 0.00038	0.024
% RSD	0.104	0.140	0.136	0.126	
$^{207}Pb/^{206}Pb$	0.91471 ± 0.00125	0.91455 ± 0.00103	0.91427 ± 0.00269	0.91451 ± 0.00166	0.024
% RSD	0.027	0.022	0.058	0.036	
$^{208}Pb/^{206}Pb$	2.1677 ± 0.0035	2.1673 ± 0.0049	2.1663 ± 0.0076	2.1671 ± 0.0053	0.033
% RSD	0.032	0.045	0.070	0.016	

External Precision = % RSD of the mean of three analyses of the sample, each consisting of nine replicates

Pb Isotopic Ratio Testing Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Pb Isotope QC

Sample ID	HA-7-8	HA-7-8	HA-7-8		External Precision
Date Analyzed	2/5/2015	2/5/2015	2/5/2015		
	Rep 1	Rep 2	Rep 3	Mean	% RSD
$^{204}Pb/^{206}Pb$	0.05695 ± 0.00057	0.05690 ± 0.00060	0.05695 ± 0.00069	0.05694 ± 0.00062	0.051
% RSD	0.197	0.208	0.240	0.215	
$^{207}Pb/^{206}Pb$	0.82347 ± 0.00319	0.82394 ± 0.00188	0.82494 ± 0.00272	0.82412 ± 0.00259	0.091
% RSD	0.077	0.045	0.065	0.062	
$^{208}Pb/^{206}Pb$	2.0202 ± 0.0076	2.0225 ± 0.0036	2.0262 ± 0.0041	2.0230 ± 0.0051	0.150
% RSD	0.074	0.035	0.040	0.016	

External Precision = % RSD of the mean of three analyses of the sample, each consisting of nine replicates

Total Pb Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Sample Date	Reception Date	Analysis Date	Dilution Factor	Total Pb	eMDL	RL	Units
HA-1-3	10/7/2014	10/14/2014	1/29/2015	250	74.1	0.11	0.99	µg/g
HA-2-2.5	10/7/2014	10/14/2014	1/29/2015	250	30.3	0.11	0.99	µg/g
HA-2-4.5	10/7/2014	10/14/2014	1/29/2015	1000	314	0.44	4.0	µg/g
HA-3-2.5	10/7/2014	10/14/2014	1/29/2015	250	53.0	0.11	1.0	µg/g
HA-3-4.5	10/7/2014	10/14/2014	1/29/2015	50	7.34	0.022	0.20	µg/g
HA-4-3	10/8/2014	10/14/2014	1/29/2015	50	9.27	0.022	0.20	µg/g
HA-4-5	10/8/2014	10/14/2014	1/29/2015	50	7.65	0.022	0.20	µg/g
HA-5-3	10/8/2014	10/14/2014	1/29/2015	50	17.1	0.022	0.20	µg/g
HA-5-5	10/8/2014	10/14/2014	1/29/2015	250	43.2	0.11	1.0	µg/g
HA-6-3	1/20/2015	1/22/2015	1/29/2015	50	5.29	0.022	0.20	µg/g
HA-6-9	1/20/2015	1/22/2015	1/29/2015	1000	297	0.44	4.0	µg/g
HA-7-3	1/20/2015	1/22/2015	1/29/2015	50	14.7	0.022	0.20	µg/g
HA-7-8	1/20/2015	1/22/2015	1/29/2015	50	6.77	0.022	0.20	µg/g

All results reflect the applied dilution and are reported in µg/g (as received)

eMDL = Estimated Method Detection Limit

RL = Reporting Limit

U = Sample concentration is below the estimated method detection limit (eMDL)

J = Sample concentration is between the eMDL and the reporting limit (RL)

Total Pb Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Quality Control Summary - Preparation Blank Summary

Analyte	Units	PB1	PB2	PB3	PB4	Mean	StdDev	eMDL* 50x	RL 50x
Total Pb	µg/g	0.000	0.001	0.000	0.015	0.004	0.007	0.022	0.20

eMDL = Estimated Method Detection Limit; RL = Reporting Limit

*Please see narrative regarding eMDL calculations

Total Pb Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Quality Control Summary - Certified Reference Materials

Analyte	Units	CRM	True Value	Result	Recovery
Total Pb	µg/g	LCS	20.00	21.53	107.6
Total Pb	µg/g	CRM 052-50G	82.6	90.05	109.0

Total Pb Results for Conestoga-Rovers & Associates
Contact: Brian Silva

Date: February 11, 2015
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Quality Control Summary - Matrix Duplicates

Analyte	Units	Sample ID	Rep 1	Rep 2	Mean	RPD
Total Pb	µg/g	HA-6-3	5.287	5.342	5.314	1.0

Quality Control Summary - Matrix Spike/ Matrix Spike Duplicate

Analyte	Units	Sample ID	Spike Conc	MS Result	Recovery	Spike Conc	MSD Result	Recovery	RPD
Total Pb	µg/g	HA-6-3	19.90	24.08	94.3	19.90	24.12	94.5	0.2

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
10969 Trade Center Dr. Ste. 107
Rancho Cordova, CA 95670

SHIPPED TO (Laboratory Name): Applied Speciation and Consulting, LLC

REFERENCE NUMBER: 307233
SSOW#312264

Site: 2259 First St, Livermore CA

SAMPLER'S SIGNATURE: _____ PRINTED NAME: Bryan Sandar

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	PARAMETERS: TSP003 *	TSA010 **	REMARKS
	10/7/14	10:25	HA-1-3	SOIL	1	X	X	* Aqua Regia Digestion
	10/7/14	10:55	HA-2-2.5			X	X	** Pb Isotropic Ratio testing for
	10/7/14	11:37	HA-2-4.5			X	X	204 Pb/206 Pb,
	10/7/14	13:31	HA-3-2.5			X	X	207 Pb/206 Pb,
	10/7/14	14:36	HA-3-4.5			X	X	208 Pb/206 Pb
	10/8/14	10:01	HA-4-3			X	X	
	10/8/14	10:38	HA-4-5			X	X	
	10/8/14	11:25	HA-5-3			X	X	
	10/8/14	11:45	HA-5-5			X	X	
								Please Send results to Brian Silva bsilva@craworld.com
TOTAL NUMBER OF CONTAINERS					9	HEALTH/CHEMICAL HAZARDS		

RELINQUISHED BY: ① _____	DATE: 10-13-14 TIME: 1530	RECEIVED BY: ① _____ Aubrey Ernst @ -0.6°C	DATE: 10/14/14 TIME: 11:00
RELINQUISHED BY: ② _____	DATE: TIME:	RECEIVED BY: ② _____	DATE: ~~-0.6°C~~ 10/14/14 TIME:
RELINQUISHED BY: ③ _____	DATE: TIME:	RECEIVED BY: ③ _____	DATE: TIME:

METHOD OF SHIPMENT: WAY BILL No.

White —Fully Executed Copy
Yellow —Receiving Laboratory Copy
Pink —Shipper Copy
Goldenrod —Sampler Copy

SAMPLE TEAM: _____ _____

RECEIVED FOR LABORATORY BY: _____ DATE: _____ TIME: _____

Nº CRA 19744

1001 (D) APR 28/97(NF) REV. 0 (F-15)

CHAIN OF CUSTODY RECORD

CONESTOGA-ROVERS & ASSOCIATES
10969 Trade Center Dr. Ste 107
Rancho Cordova, CA 95670

SHIPPED TO (Laboratory Name): Applied Speciation and Consulting, LLC

REFERENCE NUMBER: 307233
SSOW # 3122604
site: 2259 First St. Livermore CA

SAMPLER'S SIGNATURE: _____ PRINTED NAME: Bryan Sandor

SEQ. No.	DATE	TIME	SAMPLE No.	SAMPLE TYPE	No. of Containers	TSP003 *	TSP010 **	TOTAL LEAD	REMARKS
•	1-20-15	1100	HA-6-3	SOIL	1	X	X	X	* Aqua Regia Digestion
•	"	1250	HA-6-9	"	1	X	X	X	** Pb Isotropic Ratio
•	"	945	HA-7-3	"	1	X	X	X	testing for
•	"	1130	HA-7-8	"	1	X	X	X	204 Pb / 206 Pb,
									207 Pb / 206 Pb,
									208 Pb / 206 Pb
									- Please send results to Brian Silva @ bsilva@craworld.com 916-889-8908

TOTAL NUMBER OF CONTAINERS

HEALTH/CHEMICAL HAZARDS

RELINQUISHED BY: ① _____	DATE: 1-21-15 TIME: 1400	RECEIVED BY: ① Nancy Cullinan	DATE: 1/22/15 TIME: 0930
RELINQUISHED BY: ② _____	DATE: TIME:	RECEIVED BY: ② _____	DATE: TIME:
RELINQUISHED BY: ③ _____	DATE: TIME:	RECEIVED BY: ③ _____	DATE: TIME:

METHOD OF SHIPMENT: WAY BILL No.

White —Fully Executed Copy
Yellow —Receiving Laboratory Copy
Pink —Shipper Copy
Goldenrod —Sampler Copy

SAMPLE TEAM: _____ _____

RECEIVED FOR LABORATORY BY: Nancy Cullinan
DATE: 1/22/15 TIME: 0930

Nº CRA 19747
Temp: 1.7°C