CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: May 8, 2012

REFERENCE NO.: 312264

PROJECT NAME: Former Texaco 30-2733

TO: Mr. Jerry Wickham
ACEHS
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

RECEIVED
8:48 am, May 15, 2012
Alameda County
Environmental Health

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- ☐ Originals
- ☐ Prints
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- ☐ Other

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QUANTITY	DESCRIPTION
1	Well Installation Report

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
Please contact Kiersten Hoey at (510) 420-3347 with any questions or comments.

Copy to: Ms. Roya Kambin, Chevron
Mr. Hyman Wong, Zone 7 Water Agency
Mr. Chris Davidson, City of Livermore

Completed by: Kiersten Hoey [Please Print] Signed: Kiersten Hoey

Filing: **Correspondence File**

Roya Kambin
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6270
rkambin@chevron.com

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 Well Installation Report.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This Well Installation Report was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

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

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

Sincerely,

Roya Kambin
Project Manager

Attachment: Well Installation Report

WELL INSTALLATION REPORT

FORMER CHEVRON SERVICE STATION #307233
2259 1st STREET
LIVERMORE, CALIFORNIA
ACEHS Case RO0002908

Prepared For:

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

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

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

web: http:\\www.CRAworld.com

MAY 8, 2012
REF. NO. 312264 (16)
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WELL INSTALLATION REPORT

FORMER CHEVRON SERVICE STATION #307233
2259 1st STREET
LIVEMORE, CALIFORNIA
ACEHS Case RO0002908

Kiersten Hoey

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

N. Scott MacLeod, PG 5747

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

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

web: http:\\www.CRAworld.com

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Well Installation Report* on behalf of Chevron Environmental Management Company (Chevron) for former Chevron Service Station 307233 located at 2259 1st Street in Livermore, California. The purpose of the well installations, as outlined in CRA's October 28, 2011 *Work Plan for Feasibility Testing and Additional Assessment,* was to install monitoring wells to monitor the effectiveness of proposed sulfate applications for the bioremediation of dissolved phase hydrocarbons centered on well MW-7 and to further define the extent of hydrocarbons in groundwater. The work plan was approved by the Alameda County Environmental Health (ACEH) in a letter dated December 14, 2011 (Appendix A). Only wells MW-10 through MW-12 were installed on and adjacent to the site. The two wells CRA had proposed across Livermore Avenue could not be installed due to utility line location conflicts and high traffic areas compromising worker safety. Well installation details and conclusions and recommendations are presented below.

1.1 SITE DESCRIPTION AND BACKGROUND

The site is located on the eastern corner of First Street and South Livermore Avenue in Livermore, California (Figure 1). Currently the site is Mill Square Park, owned by the City of Livermore. The park consists of grass and trees with a paved walkway and gazebo. Land use surrounding the park is primarily commercial.

The earliest available aerial photograph from 1959 shows a gasoline service station building located on the southern edge of the property and two dispenser islands located on the western portion of the property. A 1973 aerial photograph indicates that the station building and dispenser islands had been removed, leaving an unoccupied paved lot. By 1978, the property had been redeveloped as a park (Figure 2). The park remains in the same configuration as shown on a 1978 aerial photograph.

1.2 PREVIOUS WORK

Environmental assessment and remediation has been ongoing since 2003 which began with an investigation initiated by the City of Livermore Engineering Division to assess soil and groundwater conditions prior to further development to the park. To date, 31 soil borings, 6 soil vapor probes and 12 wells have been installed. In 2005, one orphaned underground storage tank (UST) was removed and in 2007, two orphaned USTs and associated product piping were removed. A chronological summary of

environmental investigations and remediation conducted to date is presented in Appendix B. The locations of all known monitoring wells, soil borings, and former USTs are presented on Figure 2.

1.3 SITE GEOLOGY AND HYDROGEOLOGY

The site is approximately 485 feet above mean sea level and regional topography slopes gently to the north. According to the September 2005 *Groundwater Management Plan* prepared by the Zone 7 Water Agency (Zone 7), the site is located in the Mocho II Sub-Basin of the Main Livermore-Amadore Valley Groundwater Basin. Zone 7 Water Agency extracts groundwater from this basin for municipal drinking water. Sediments in this basin are described as recent alluvium consisting of sandy gravel and sandy clayey gravel from the surface to approximately 150 feet below grade (fbg). This alluvium overlies the Livermore Formation.

Sediments encountered beneath the site during boring investigations consisted of silty sand, silty gravel, and sandy gravel from the surface to approximately 9 fbg. Silt and clay are encountered between approximately 9 and 45 fbg, and sand and gravel are predominately encountered from approximately 45 fbg to the total depth explored of 62 fbg.

A current network of 12 onsite and offsite wells monitor groundwater in two water-bearing zones that have been identified below the site; Zone A at approximately 28 to 40 fbg and Zone B at approximately 55 fbg. Zone A is believed to be a seasonal perched Zone that is not horizontally continuous across the site, as it was only encountered in the southern and eastern portion of the site, and wells MW-7 and MW-8 had insufficient groundwater to sample during the most recent sampling event. Groundwater in shallow Zone A ranges from approximately 25 to 37 fbg and flows toward the southwest. Groundwater in deep Zone B is confined, ranges from approximately 27 to 38 fbg, and flows toward the northwest.

2.0 WELL INSTALLATION

On February 14 through February 17, 2012, CRA installed offsite monitoring wells MW-10 and MW-11 to monitor hydrocarbon concentrations downgradient of the site and to monitor the effectiveness of future sulfate applications, and onsite monitoring well MW-12 to monitor hydrocarbons in groundwater previously detected in boring SB-3. CRA proposed to install two offsite wells across Livermore Avenue;

however, the wells could not be safely installed due to numerous utility lines at one proposed well location and a high-risk traffic zone at the other proposed well location. There were no alternative locations for either of the wells due to the locations of commercial buildings, landscaping with irrigation lines and PG&E utilities and utility boxes, and a large fountain. CRA's field activities are detailed below.

2.1 MONITORING WELL INSTALLATION

Permits

CRA installed monitoring wells MW-10 through MW-12 under Zone 7 water agency permit # 2012006 and City of Livermore encroachment permit # EN120044. Copies of these permits are included in Appendix C.

Site Health and Safety Plan

CRA performed all work under the guidelines set forth in a comprehensive site health and safety plan. The plan was reviewed and signed by all site workers and visitors, and kept onsite at all times.

Geophysical Survey

Prior to drilling, CRA contacted Underground Service Alert (USA) to mark any existing underground utilities at and surrounding the proposed well locations. CRA contracted Norcal Geophysical Consultants, Inc. of Cotati, California to locate underground utilities at and surrounding the proposed well location using a metal detector and ground penetrating radar (GPR) equipment in the vicinity of the proposed well locations.

Drilling Company

Vapor Tech Services of Berkley, California (C-57 #916085) advanced the borings and installed the monitoring wells.

CRA Personnel

CRA staff Amanda McDonell and Margarita Wolf directed the drilling activities under the supervision of California Professional Geologist Brandon S. Wilken, PG 7564.

Utility Clearance

Per Chevron and CRA safety procedures, the well borings were cleared to 8 fbg using an air-knife to ensure no underground utilities were located beneath the drilling locations.

Well Installation

The borings for wells MW-10 and MW-11 were advanced to 40 fbg, and MW-12 was advanced to 45 fbg using 8-inch hollow stem augers. All monitoring wells were constructed using 2-inch diameter Schedule 40 polyvinyl chloride (PVC) casing and 5 feet of 0.010-inch slotted screen. MW-10 was screened from 27 to 32 fbg, and wells MW-11 and MW-12 were screened from 29 to 34 fbg. Bentonite was used to fill the bottom of the borings to 2 feet below the base of the screens. Monterey #2/12 sand was used to fill the annular space between the bentonite and base of screen and around the screen to approximately 2 feet above the well screen. A 2-foot hydrated bentonite seal was placed above the sand-packs. The wells were completed with Portland Type I/II cement filling the annular space surrounding the well casing to approximately 0.5 fbg. Well boxes equipped with a traffic rated lid were installed to grade for all wells. The well logs for wells MW-10 through MW-12 are included in Appendix D. CRA's standard operating procedures for soil boring and monitoring well installation are included in Appendix E.

Soil Sampling

Soil samples were collected at approximately 5-foot intervals. Soil samples above 8 fbg were collected using a hand auger and soil was transferred to 6-inch steam cleaned brass tubes. Samples below 8 fbg were collected using GeoProbe sampling. CRA geologists logged collected soils using the Unified Soil Classification System and screened the soil using a photo-ionization detector (PID). Soil samples were labeled, logged on a chain-of-custody, placed on ice, and shipped to Lancaster Laboratories of Lancaster, Pennsylvania for analysis.

Well Development and Sampling

On March 9, 2012, Getter-Ryan Inc. (G-R) developed wells MW-10 through MW-12 and on March 12, 2012, sampled the wells. G-R's March 20, 2012 *Well Development and Monitoring and Sampling Report* is included in Appendix F.

Groundwater Depths

During drilling, shallow groundwater was encountered in wells MW-10, MW-11, and MW-12 at depths of approximately 18, 15, and 20 fbg, respectively. During well development, groundwater depth was measured at approximately 28, 31, and 25 fbg, respectively, and during sampling was measured at approximately 28, 33, and 27 fbg, respectively.

Laboratory Analysis

Selected soil samples were analyzed by Lancaster Laboratories for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015B with silica gel cleanup, total

petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015B modified, and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B. Soil and groundwater analytical results are presented in Tables 1 and 2, respectively, and the laboratory reports for soil and groundwater are included in Appendix G.

Well Survey

On February 28, 2012, Morrow Surveying of West Sacramento, California surveyed the latitude and longitude and top of casing (TOC) elevation of all site wells. Survey data are presented in Appendix H.

Waste Disposal

CRA stored soil cuttings and decontamination water in labeled, Department of Transportation approved 55-gallon steel drums. The drums were removed from the site and transported to Filter Recycling Services Inc. in Rialto, CA on March 8, 2012.

2.2 INVESTIGATION RESULTS

2.2.1 LITHOLOGY

Soil encountered beneath the asphalt and baserock consisted of silts, sands, and gravels to a depth of 45 fbg. These soils are consistent with previously logged soils at and near the site. The boring logs are presented in Appendix D.

2.2.2 HYDROCARBONS IN SOIL

The highest concentrations detected in soil were 300 milligrams per kilogram (mg/kg) TPHd, 1,400 mg/kg TPHg, 0.15 mg/kg benzene, 4.8 mg/kg ethylbenzene, and 11 mg/kg xylenes at 35 fbg in onsite well boring MW-12, and 0.001 mg/kg toluene at 39.5 fbg in well boring MW-12. Soil analytical data and Environmental Screening Levels (ESLs)[1] are summarized in Table 1.

[1] San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs) published in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* [Interim Final November 2007 (Revised May 2008)]

2.2.3 HYDROCARBONS IN GROUNDWATER

On March 12, 2012, Gettler-Ryan collected groundwater samples from all site wells during the first quarter 2012 groundwater monitoring and sampling event. Groundwater analytical data and ESLs are summarized in Table 2.

Deep Groundwater

The deeper groundwater zone is monitored by wells MW-1 through MW-6. No TPHg or BTEX were detected in the deeper groundwater wells. No TPHd was detected in any of the 6 wells using the extended column 10 percent silica gel cleanup analysis. Hydrocarbons in groundwater are vertically defined by the 6 deep wells.

Shallow Groundwater

The shallow, perched groundwater zone is monitored by wells MW-7 through MW-12. Wells MW-7 and MW-8, which historically contain the highest hydrocarbon concentrations in groundwater, had insufficient water to sample during the March 12, 2012 sampling event. The highest concentrations detected in groundwater included 310 micrograms per liter (µg/L) TPHd (with 10 gram silica gel cleanup) and 10 µg/L benzene in onsite well MW-12, and 3,100 µg/L TPHg in offsite well MW-10. Dissolved hydrocarbons are centered on well MW-7. TPHd and TPHg are defined to the west by wells MW-9 and MW-11 (Figures 3 and 4), and benzene is defined to the west by MW-9 and MW-11 and to the southeast by MW-10 (Figure 5).

3.0 POTENTIAL EFFECTS OF LAND APPLICATION OF GYPSUM

ACEH requested an evaluation of the potential effects of land application of gypsum within the landscaped areas of the park in a December 14, 2011 letter. An evaluation of the potential health/nuisance impacts of gypsum to users of the park and potential impact of gypsum to vegetation is discussed in the memo included as Appendix I. The evaluations were conducted by a CRA professional engineer with experience in the use of gypsum. Given the mode of application and the non-hazardous classification of gypsum, there is no apparent health concern for this remediation approach. The proposed rate of application is within the established range for landscape or turfgrass systems. Coupled with the method of dissolving and irrigation application of the amendment, which allows for a steady and controllable dose of amendment to be applied, there is a minimal chance of vegetation damage.

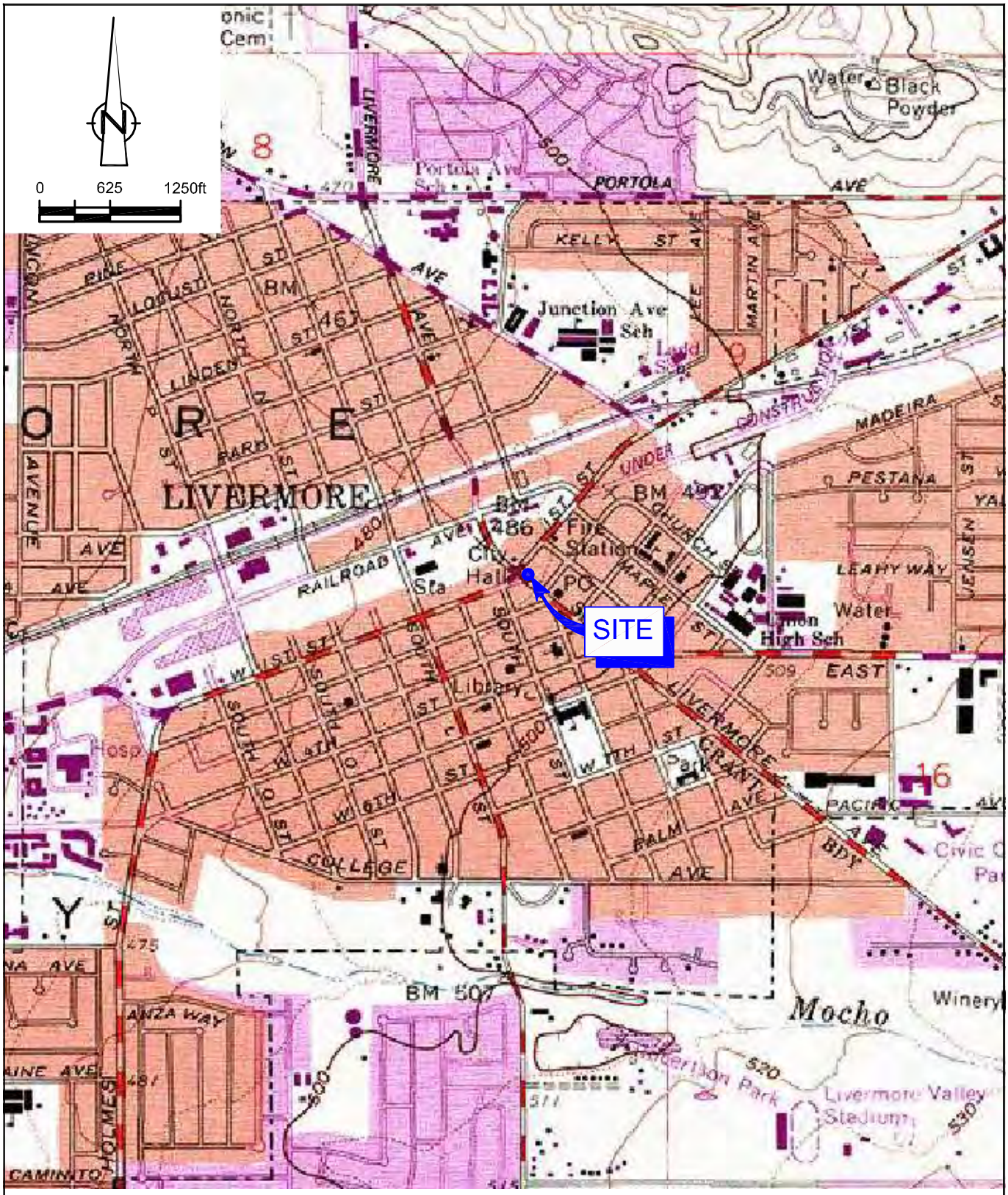
4.0 SCREENING LEVELS FOR LEAD IN SOIL

In the December 14, 2011 letter, ACEH requested the lead concentrations detected in shallow soil be compared to the Office of Environmental Health Hazard Assessment (OEHHA) screening levels of 80 mg/kg under a residential scenario and 260 mg/kg (according to the final September 2009 document the screening level is actually 320 mg/kg) under a commercial land use scenario. Additionally, a recommendation for the assessment of potential human health risks to lead in shallow soil and further characterization of lead in shallow soil was requested. Based on the lead distribution in shallow soil (<10 fbg) illustrated in Figure 6, no additional assessment is necessary; however CRA recommends a human health risk assessment, which will be submitted as a separate report.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Onsite well MW-12 was successfully installed to monitor hydrocarbons previously detected in boring SB-3, and offsite wells MW-10 and MW-11 were successfully installed in the parking lane on the north side of Livermore Avenue to monitor dissolved hydrocarbons and effectiveness of the sulfate/gypsum application downgradient of the site. No light non-aqueous phase liquid was detected in MW-7; therefore, CRA will install a sulfate canister in well MW-7 and apply gypsum to the landscaped area of the park around MW-7 and SB-3, as proposed in the October 28, 2011 *Work Plan for Feasibility Testing and Additional Assessment*. Additionally, CRA recommends quarterly monitoring of the 3 new wells for one year, followed by semi-annual sampling. We will use data collected during groundwater sampling to assess remedial performance.

FIGURES



SOURCE: TOPO! MAPS.

Figure 1

VICINITY MAP
FORMER TEXACO STATION (CHEVRON SITE 30-7233)
2259 FIRST STREET
Livermore, California

FIRST STREET

LIVERMORE AVENUE

CPT4

CPT5

MW-2

MW-3

MW-4

MW-5

MW-6

MW-7

MW-8

MW-9

MW-10

MW-11

MW-12

CPT1

CPT2

CPT3

MW-1

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

0Á

90Á

180Á

270Á

HISTORICAL SHALLOW GROUNDWATER FLOW DIRECTION 2Q2010 THROUGH 2012

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 30-7233
2259 FIRST STREET
Livermore, California

312264-2012(016)GN-WA002 APR 23/2012

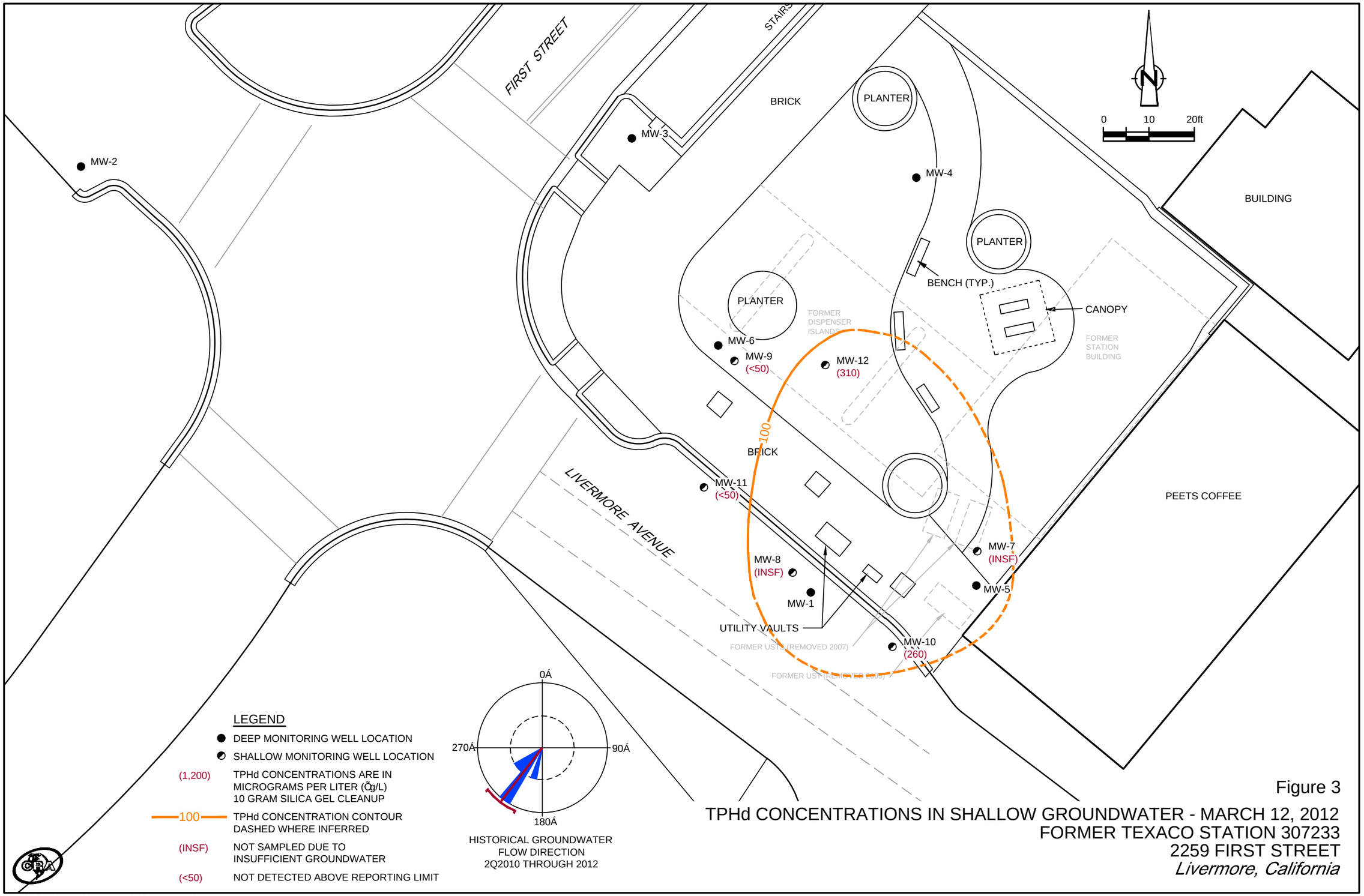


Figure 3

TPHd CONCENTRATIONS IN SHALLOW GROUNDWATER - MARCH 12, 2012
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312264-2012(016)GN-WA003 APR 23/2012

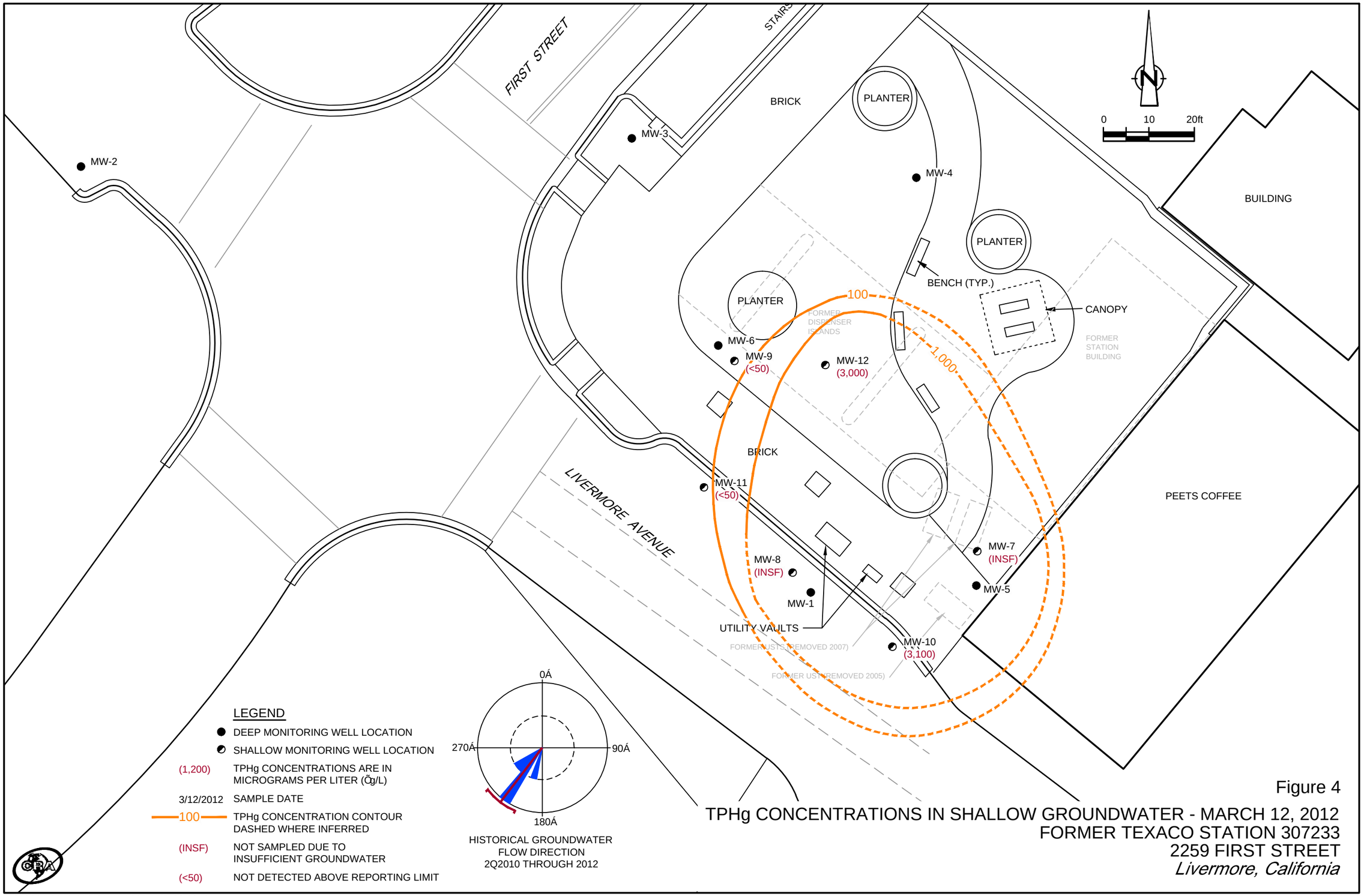


Figure 4

TPHg CONCENTRATIONS IN SHALLOW GROUNDWATER - MARCH 12, 2012
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312264-2012(016)GN-WA005 APR 23/2012

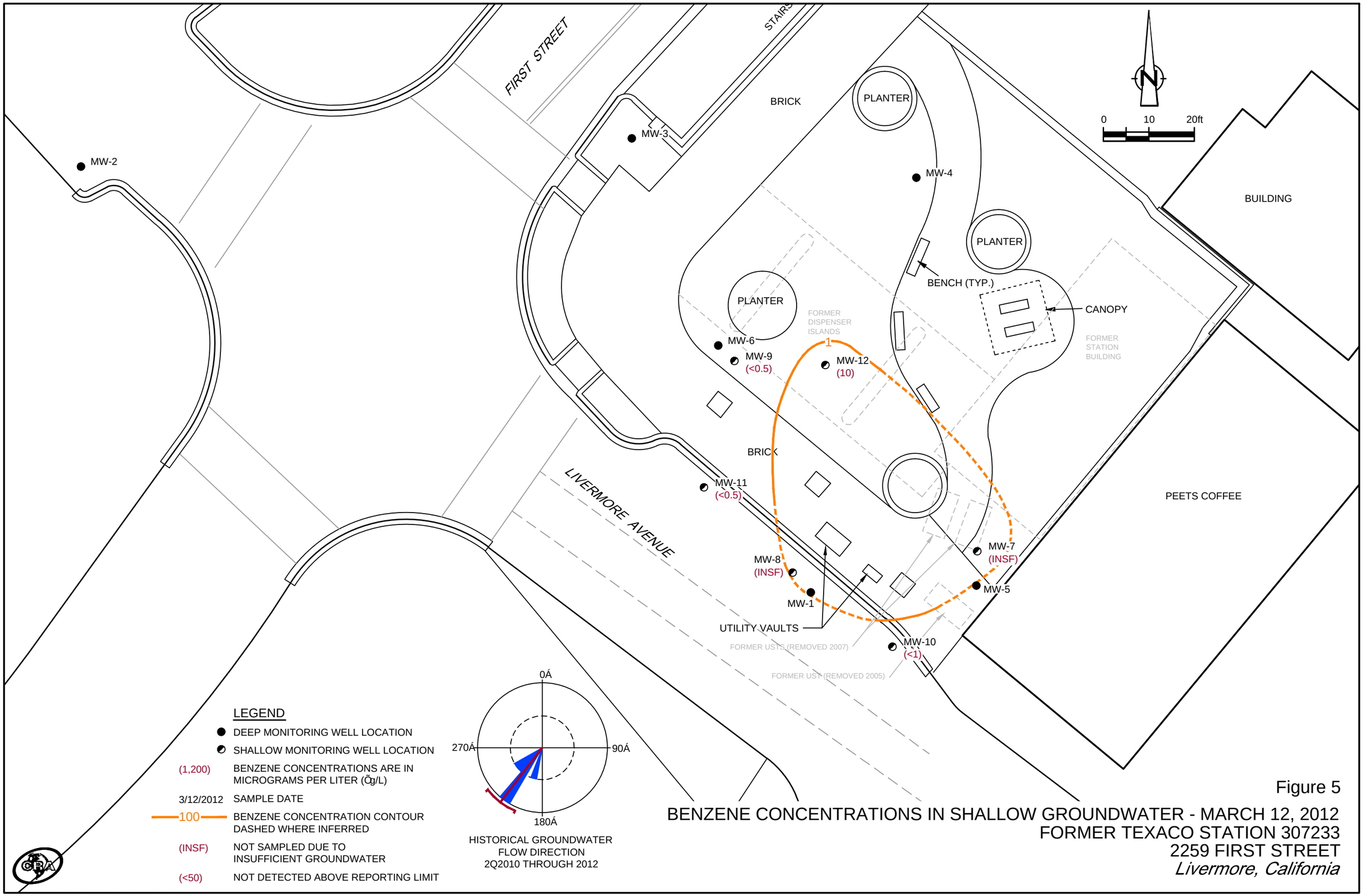


Figure 5

BENZENE CONCENTRATIONS IN SHALLOW GROUNDWATER - MARCH 12, 2012
FORMER TEXACO STATION 307233
2259 FIRST STREET
Livermore, California

312264-2012(016)GN-WA004 MAY 4/2012

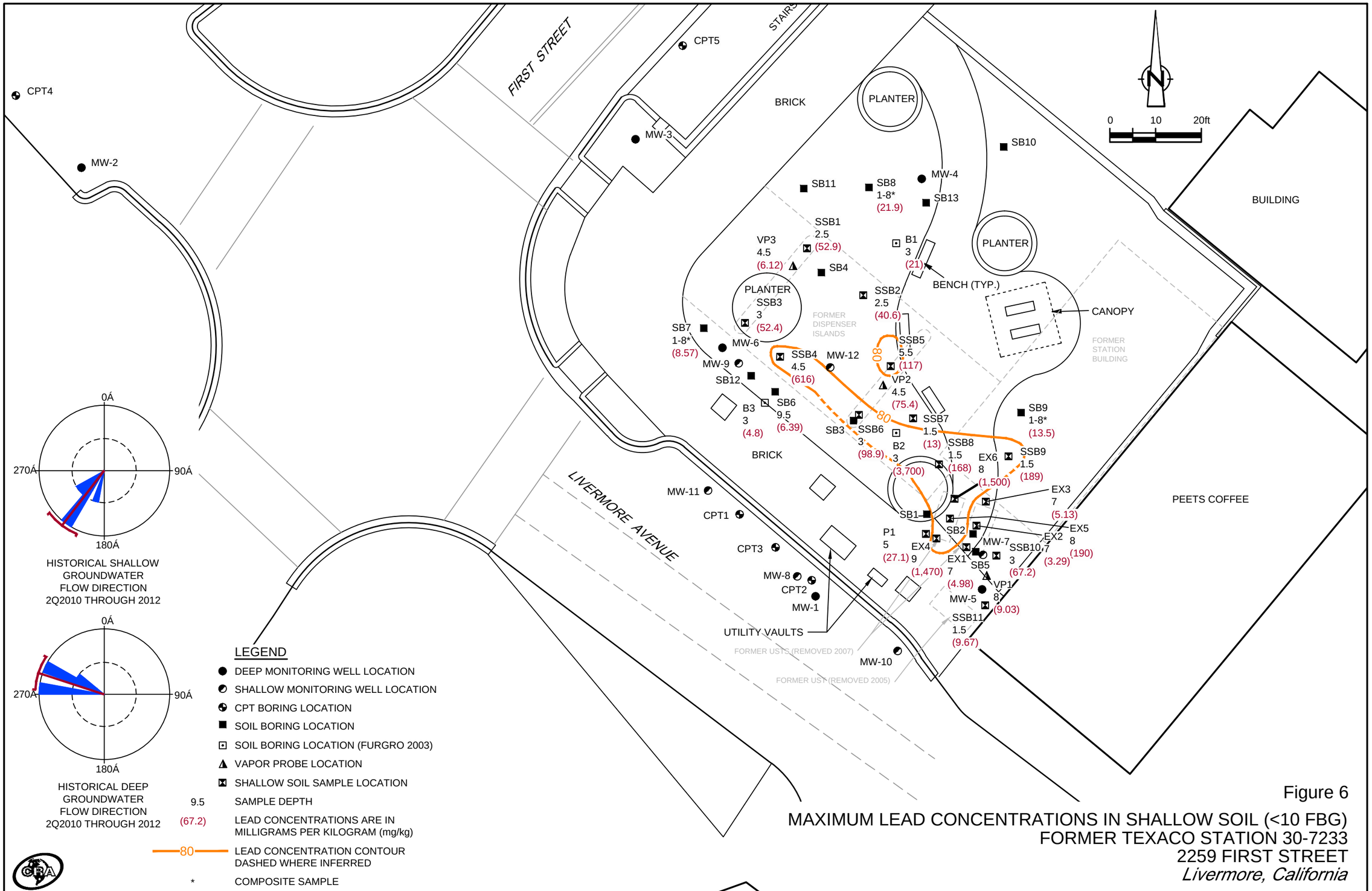


Figure 6

MAXIMUM LEAD CONCENTRATIONS IN SHALLOW SOIL (<10 FBG)
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
Livermore, California

312264-2012(016)GN-WA006 MAY 4/2012

TABLES

TABLE 1
SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION # 307233
2259 1ST STREET, LIVERMORE, CALIFORNIA

Location	*Date*	*Depth*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*
		(fbg)	←			*mg/kg*		→
ESL (Groundwater is a Current or Potential Drinking Water Resource)								
K-1	*Direct Exposure: Residential (0-2 fbg)*		*110*	*110*	*0.12*	*63*	*2.3*	*31*
K-2	*Direct Exposure: Commerical/Industrial Worker*		*450*	*450*	*0.27*	*210*	*5.0*	*100*
K-3	*Direct Exposure: Construction/Trench Worker*		*4,200*	*4,200*	*12*	*650*	*210*	*420*
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

TABLE 1
SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION # 307233
2259 1ST STREET, LIVERMORE, CALIFORNIA

NOTES:

fbg = feet below grade
mg/kg - milligrams per kilogram
TPHd = Total petroluem hydrocarbons as diesel by EPA Method 8015B w/silica gel cleanup. The reverse serrogate, capric acid

TPHg = Total petroleum hydrcarbons as gasoline by EPA Method 8015B modified
MTBE = Methyl tertiary Butyl Ether by EPA Method 8260
ESL = Environmental Screening Levels: *California Regional Water Quality Control Board, San Francisco Bay Region, screening for environmental concerns at sites with contaminated soil and groundwater. Interim Final - November 2007 (Revised May 2008)*
<x = Not detected above laboratory detection limit
-- = Not Analyzed

TABLE 2
GROUNDWATER ANALYTICAL DATA
FORMER CHEVRON STATION 307233
2259 1ST STREET, LIVERMORE, CALIFORNIA

ESL TABLE	*APPLICATION*	*TPHd w/1 gram silica gel cleanup*	*TPHd w/ 10g silica gel cleanup**	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Xylenes*
	Units			*µg/L*				
Deep wells								
MW-1	3/12/2012	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-2	3/12/2012	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-3	3/12/2012	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-4	3/12/2012	**130**	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-5	3/12/2012	95	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-6	3/12/2012	54	<50	<50	<0.5	<0.5	<0.5	<0.5
Shallow wells								
MW-7	3/12/2012			Well not sampled due to insufficent water				
MW-8	3/12/2012			Well not sampled due to insufficent water				
MW-9	3/12/2012	<50	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-10	3/12/2012	**440**	**260**	**3,100**	<1	<1	**36**	16
MW-11	3/12/2012	**160**	<50	<50	<0.5	<0.5	<0.5	<0.5
MW-12	3/12/2012	**1,100**	**310**	**3,000**	**10**	1	19	**38**

Notes:
ESL = Environmental Screening Levels: *California Regional Water Quality Control Board, San Francisco Bay Region, screening for environmental concerns at sites with contaminated soil and groundwater. Interim Final - November 2007 (Revised May 2008)*

TPHd - Total petroleum hydrocarbons as Diesel by EPA method 8015B
Benzene, toulene, ethylbenzene and xylenes by EPA method 8260B
µg/L - micorgrams per liter
* indicates the reverse surrogate, capric acid, is present at <1%

APPENDIX 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.

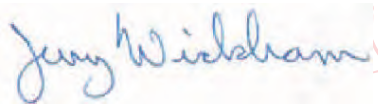
TECHNICAL REPORT REQUEST

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

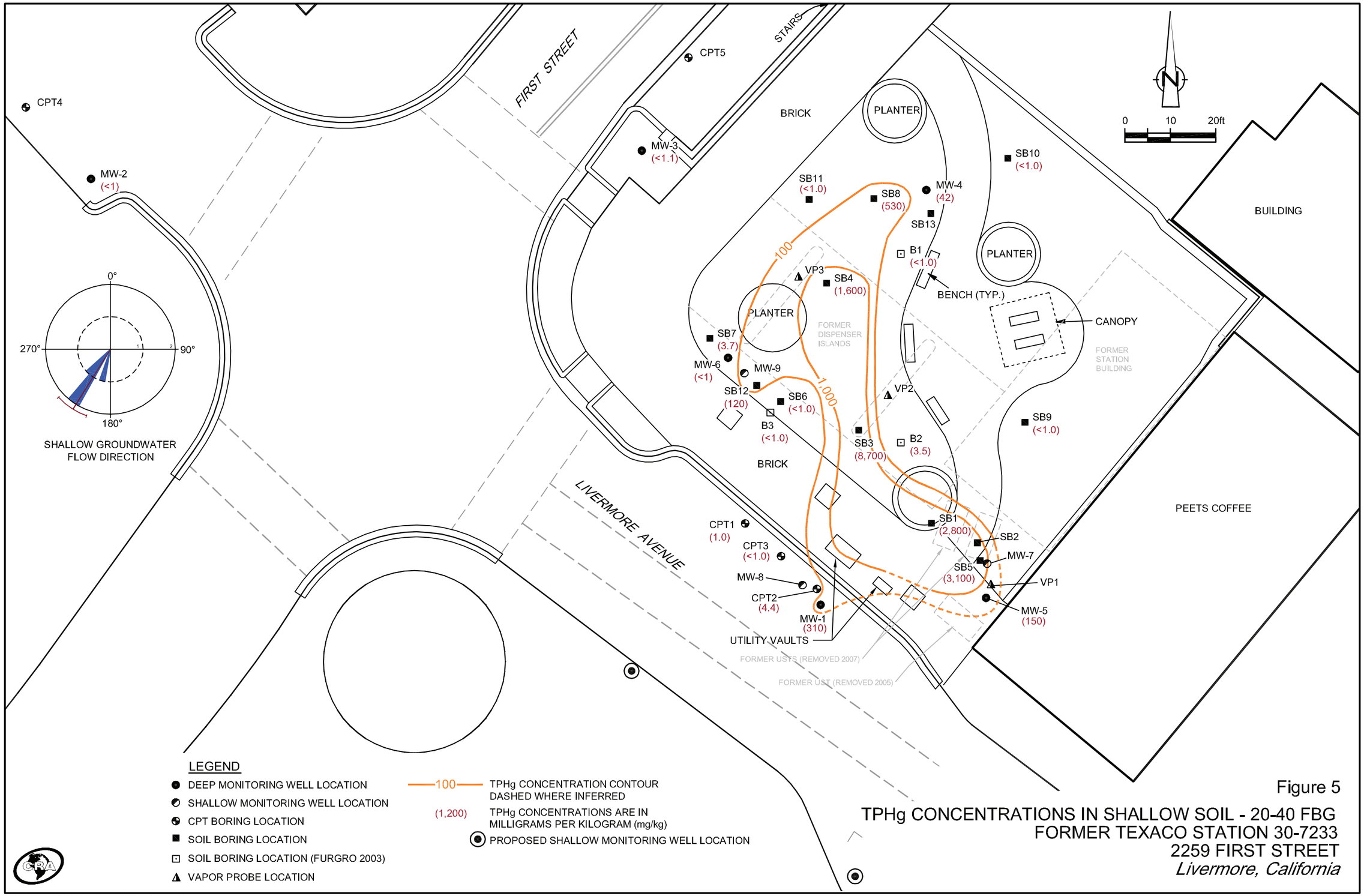


Figure 5

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.

APPENDIX B

SUMMARY OF ENVIRONMENTAL INVESTIGATIONS

PREVIOUS ENVIRONMENTAL INVESTIGATION AND REMEDIATION
FORMER TEXACO SERVICE STATION 307233
2259 FIRST STREET, LIVERMORE, CALIFORNIA

September 2003 Investigation

The City of Livermore Engineering Division, as part of a redevelopment plan, retained Fugro West, Inc. (Fugro) to investigate soil and groundwater conditions beneath Mills Square Park to evaluate the potential presence of petroleum hydrocarbons resulting from the historic use of the site as a service station. Fugro advanced three soil borings onsite. Details can be found in Fugro's January 6, 2004 *Soil and Groundwater Investigation Report.*

September 2005 UST Removal

In September 2005, an orphan underground storage tank (UST) was encountered beneath the sidewalk on the southwest corner of the site. At the direction of the Livermore-Pleasanton Fire Department the UST was removed, soil samples collected, and the excavated soil was backfilled into the UST pit. Chevron was not involved with the tank removal and was contacted later by ACEH to investigate whether any other USTs remained in Mills Square Park. Additional information is available in Consolidated Engineering Laboratories' October 4, 2005, *Environmental Sampling, Testing and Evaluation of Soil* report.

August 2006 Geophysical Investigation

Cambria Environmental Technology, Inc. (Cambria), now Conestoga-Rovers & Associates (CRA), contracted NORCAL Geophysical Consultants, Inc. to determine if any USTs still remained in place. Two suspected tanks were identified in the southwest corner of the park, measuring approximately 5 by 7 feet and located approximately 3 fbg. More information is available in Cambria's December 22, 2006 *Subsurface Investigation Report*.

September and October 2006 Site Investigation

Cambria observed Woodward Drilling Company, Inc. advance borings SB1 through SB5 in the vicinity of the former dispenser islands and suspected USTs. More information is available in Cambria's December 22, 2006 *Subsurface Investigation Report*.

June 2007 Tank Removal

On June 20, 2007, CRA observed Gettler-Ryan Inc. remove two 750 gallon single-wall steel gasoline USTs (Tank 1 and Tank 2) and approximately 27 feet of associated product piping. CRA collected compliance soil samples from beneath the ends and middle of both Tank 1 and Tank 2 and from below the pipes protruding from the northwestern wall of the tank pit. More information is available in CRA's August 17, 2007 *Underground Storage Tank Removal and Compliance Sampling Report*.

January and February 2008 Site Investigation

CRA observed Gregg Drilling & Testing, Inc. (Gregg), RSI Drilling, and Vironex Environmental Field Services advance soil borings CPT1, CPT2 and SB6 through SB9, shallow soil borings SSB1 through SSB11 (for lead analysis), and install vapor probes VP-1 through VP 3, both on and offsite. More information is available in CRA's March 27, 2008 *Subsurface Investigation Report and Well Installation Workplan*.

October and November 2008 Site Investigation

CRA observed Gregg Drilling advance soil borings CPT3 through CPT5 and SB10 through SB12, both on and offsite. CRA re-sampled soil vapor probe VP1 to confirm previous soil vapor data. Additional information is available in CRA's March 5, 2009 *Subsurface Investigation Report*.

March and April 2010 Monitoring Well Installation:

On March 29 through April 12, 2010 CRA observed Gregg Drilling install deep wells MW-1 through MW-6 and shallow wells MW-7 through MW-9. Additional information is available in CRA's June 3, 2010 *Well Installation Report.*

2011 Corrective Action Plan

As requested by ACEH, CRA submittal a *Draft Corrective Action Plan* (CAP) dated May 3, 2011. In the CAP, CRA recommended monitored natural attenuation and additional site assessment to define the extent of hydrocarbons in groundwater. In response to the ACEH June 9, 2011 letter and a meeting with Jerry Wickham of ACEH on August 3, 2011, CRA submitted a *Work Plan for Feasibility Testing and Additional Assessment*. In the report CRA proposed surfactant to remove LNAPL detected in well MW-7, followed by a gypsum land application and sulfate canister installations in well MW-7 to enhance bioremediation of dissolved hydrocarbons. Additional onsite and offsite wells were also proposed.

APPENDIX C

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

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2259 First Street, Livermore

Coordinates Source N/A ft. Accuracy ____ ft.
LAT: ____ ft. LONG: ____ ft.
APN 97-110-5-3

CLIENT
Name Chevron
Address 6101 Bollinger Canyon Rd Phone 925-790-6092
City San Ramon Zip 94583

APPLICANT
Name Conestoga Rovers & Associates (Amanda Mcconnell)
Email amcdonell@craworld.com Fax ____
Address 5900 Hollis St. Suite A Phone 510 420-3353
City Emeryville Zip 94608

TYPE OF PROJECT:

Well Construction	X	Geotechnical Investigation	___
Well Destruction	___	Contamination Investigation	X
Cathodic Protection	___	Other ____	___

PROPOSED WELL USE:

Domestic	___	Irrigation	___
Municipal	___	Remediation	X
Industrial	___	Groundwater Monitoring	X
Dewatering	___	Other ____	___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Hollow Stem Auger X
Cable Tool ___ Direct Push ___ Other ____ ___

DRILLING COMPANY Vapor Tech
DRILLER'S LICENSE NO. 916085

WELL SPECIFICATIONS:
Drill Hole Diameter 6 in. Maximum
Casing Diameter 2 in. Depth 40 ft.
Surface Seal Depth 2 ft. Number 5

SOIL BORINGS:
Number of Borings ____ Maximum
Hole Diameter ____ in. Depth ____ ft.

ESTIMATED STARTING DATE 2/14/12
ESTIMATED COMPLETION DATE 2/17/12

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

APPLICANT'S SIGNATURE Amanda McConnell Date 1/24/12

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 2012006
WELL NUMBER 3S/2E-9N31 to 9N35
APN 097-0110-005-03

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 2/6/12
Wyman Hong

Revised: January 4, 2010

PERMIT 2012006

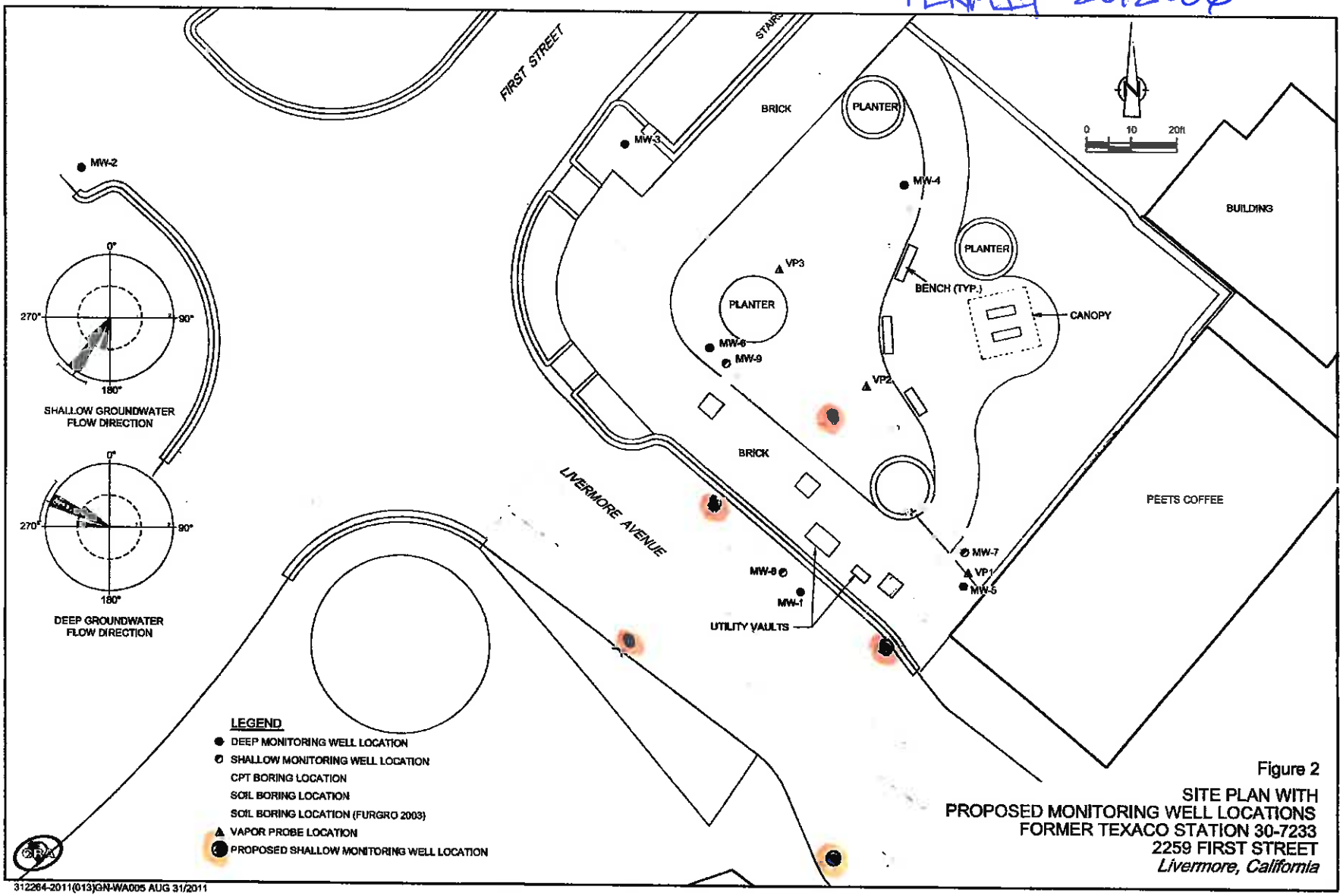


Figure 2
SITE PLAN WITH
PROPOSED MONITORING WELL LOCATIONS
FORMER TEXACO STATION 30-7233
2259 FIRST STREET
Livermore, California

312264-2011(013)GN-WA005 AUG 31/2011

App.

City of Livermore

Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550
(925) 960-4500

Encroachment
Permit No. EN120044
Type: Other

PERMIT TO DO WORK IN ACCORDANCE WITH CHAPTER 12.08 OF THE LIVERMORE MUNICIPAL CODE AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LIVERMORE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.

Permit Fee:	$90.00
Inspection Fee:	$1,100.00
Bond:	$0.00

Total: $1,190.00

Applicant/Permittee:
Name: Conestoga Rovers & Assoc.
Address: 5900 Hollis St. Suite A
Emeryville, 94608
Phone: 510-420-3353

Contractor:
Name: Conestoga Rovers & Assoc.
Address: 5900 Hollis St. Suite A
Emeryville 94608
Phone: 510-420-3353

PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR AN INSPECTION, PHONE (925) 960-4500 AT LEAST 24 HOURS BEFORE YOU START WORK.

JOB LOCATION: 2259 First Street ****
DESCRIPTION OF WORK: Close parking spaces on South Livermore Ave installing 3 monitoring and sampling wells. Permit valid for Tuesday February 14, 2012 thru Friday Feb,17, 20102 only. See attached traffic control/site plan for locations of wells.

MUST POST NO PARKING SIGNS 72 hours prior to closing parking space.

Length of Excavation: _ L.F. **Width:** _ L.F. **Depth:** _ L.F.

Attention is directed to the General Provisions printed on the reverse side of this permit and to the attached special requirements (to be determined as needed by the Engineering Division).

Prosecution of Work: All work authorized by the permit shall be performed in a workmanlike, diligent, and expeditious manner, and must be completed to the satisfaction of the City Engineer.

Liability and Damages: The permittee shall be responsible for all liability imposed by law for personal injury or property damage which may arise out of the work permitted and done by permittee under this permit, or which may arise out of the failure on the part of the permittee to perform his obligations under said permit in respect to maintenance and encroachment. The permittee shall protect and indemnify the City of Livermore, its officers and employees, and save them harmless in every way from all action at law for damage or injury to persons or property that may arise out of or be occasioned in any way because of his operations as provided in this permit.

Hold Harmless and Indemnification Agreement: Conestoga Rovers & Assoc. agrees to defend, indemnify and hold the City of Livermore, elected officials, officers, directors, employees, agents and volunteers harmless from and against any and all loss, liability, damage, including reasonable attorney and expert fees and/or court costs, arising out of or in connection with this agreement, except for the gross negligence and willful misconduct of the City of Livermore, its elected officials, officers, directors, employees, agents and volunteers.

Conestoga Rovers & Assoc.
Signature of Permittee:
By: [signature]
Title: environmental Scientist
Date: 2/13/12
Date Work Completed: _____

City Engineer
By: [signature]
Date of Issue: 2-9-12
Inspector: _____

City of Livermore

Encroachment Permit No. EN120044

Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550
(925) 960-4500

SPECIAL REQUIREMENTS APPLICABLE TO WORK ASSOCIATED WITH

JOB LOCATION: *2259 First Street *****

DESCRIPTION OF WORK: *Close parking spaces on South Livermore Ave installing 3 monitoring and sampling wells. Permit valid for Tuesday February 14, 2012 thru Friday Feb,17, 20102 only. See attached traffic control/site plan for locations of wells.*

MUST POST NO PARKING SIGNS 72 hours prior to closing parking space.

1: See Attached Drawing/Plans

2: All work shall be completed between the hours of 9 a.m. and 3 p.m.

3: All lane closures/ traffic control shall be done per Cal Trans Standards.

4: Contractor shall repair/replace all damaged curb, gutter and sidewalk damaged as a result of current work being completed per the City Livermore Standard Details.

5: Pedestrian access must be maintained at all times, including if necessary, escorting pedestrians through the work area.

APPENDIX D

WELL BORING LOG

Conestoga-Rovers & Associates, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/ WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-10
JOB/SITE NAME	Chevron #307233	**DRILLING STARTED**	14-Feb-12
LOCATION	2259 First Street, Livermore, California	**DRILLING COMPLETED**	15-Feb-12
PROJECT NUMBER	312264	**WELL DEVELOPMENT DATE (YIELD)**	09-Mar-12
DRILLER	Vapor Tech C57# 916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife, Geoprobe, Hollow stem auger	**TOP OF CASING ELEVATION**	491.15 ft above msl
BORING DIAMETER	8-inch	**SCREENED INTERVALS**	27 to 32 fbg
LOGGED BY	G. Wolf	**DEPTH TO WATER (First Encountered)**	18.0 fbg ▽
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Cleared by air-knife-assisted vacuum truck to 8 feet below grade		

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
				GW	**ASPHALT** **Silty GRAVEL:** Brown; dry.	1.0
0		MW-10 @5	5	SW	**Silty SAND with gravel:** Brown; dry; medium grained sand; cobbles up to 6 inches.	5.0
				GW	**Silty GRAVEL:** Brown; dry. @ 9 fbg color change to rust brown.	8.0
0		MW-10 @10	10	ML	**Gravelly SILT:** Brown; moist; low estimated plasticity. **Sandy SILT with gravel:** Brown; wet; moderate estimated plasticity.	10.0
0		MW-10 @15	15	GW	**Silty GRAVEL:** Greyish brown; dry. @ 17 fbg: increase silt content and moist. ▽ @ 18 fbg: increase gravel content and wet.	15.0
0		MW-10 @20	20			
0		MW-10 @25	25		@ 26 fbg: color change to greenish grey.	
10						
52		MW-10 @30	30			31.0
10		MW-10 @35	35	ML	**SILT:** Brown; moist; medium estimated plasticity.	
0		MW-10 @39.5	40			40.0

WELL DIAGRAM:
- Flush-grade 8" well box
- Portland Type I/II
- Bentonite Seal
- 2"-diam., 0.010" Slotted Schedule 40 PVC
- Monterey Sand #2/12
- Bentonite Seal
- Bottom of Boring @ 40 fbg

WELL LOG (PID) I:\CHEVRON\3122-\312264-1\312264-GINT.GPJ DEFAULT.GDT 5/3/12

Conestoga-Rovers & Associates, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/ WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-11
JOB/SITE NAME	Chevron #307233	**DRILLING STARTED**	15-Feb-12
LOCATION	2259 First Street, Livermore, California	**DRILLING COMPLETED**	16-Feb-12
PROJECT NUMBER	312264	**WELL DEVELOPMENT DATE (YIELD)**	09-Mar-12
DRILLER	Vapor Tech C57# 916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife, Geoprobe, Hollow stem auger	**TOP OF CASING ELEVATION**	490.59 ft above msl
BORING DIAMETER	8-inch	**SCREENED INTERVALS**	29 to 34 fbg
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	15.0 fbg ▽
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Cleared by air-knife-assisted vacuum truck to 8 feet below grade		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
							ASPHALT	1.0
				5	SW		**SAND with gravel:** Brown; dry; some cobbles up to 6-8 inches.	
		MW-11 @5						8.0
					GW		**Silty GRAVEL:** Brown; moist; some fine to medium grained sand.	10.0
		MW-11 @10		10			**SILT with sand:** Brown; moist; moderate estimated plasticity; some gravels present.	
		MW-11 @15		15	ML		@ 15 fbg: wet. ▽	
							Sandy SILT with gravel: Brown; wet; low estimated plasticity.	19.0
		MW-11 @20		20	SM		**Silty SAND:** Brown; wet; low estimated plasticity; fine to medium grained sands.	21.0
							GRAVEL with sand: Brown; wet.	
		No re covery		25	GW			
		MW-11 @30		30				31.0
					SW		**SAND with gravel:** Brown; wet.	
							@ 33 fbg: Color change to greyish green.	35.0
		MW-11 @35		35			**SILT:** Brown; wet; moderate estimated plasticity.	
					ML		**SILT with sand:** Brown; wet; moderate estimated plasticity.	40.0
		MW-11 @39.5		40				

WELL DIAGRAM

- Flush-grade 8" well box
- Portland Type I/II
- Bentonite Seal
- 2"-diam., 0.010" Slotted Schedule 40 PVC
- Monterey Sand #2/12
- Bentonite Seal
- Bottom of Boring @ 40 fbg

WELL LOG (PID) I:\CHEVRON\3122-\312264-1\312264-1\312264-GINT.GPJ DEFAULT.GDT 5/3/12

Conestoga-Rovers & Associates, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING/ WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-12
JOB/SITE NAME	Chevron #307233	**DRILLING STARTED**	16-Feb-12
LOCATION	2259 First Street, Livermore, California	**DRILLING COMPLETED**	17-Feb-12
PROJECT NUMBER	312264	**WELL DEVELOPMENT DATE (YIELD)**	09-Mar-02
DRILLER	Vapor Tech C57# 916085	**GROUND SURFACE ELEVATION**	NA
DRILLING METHOD	Air-knife, Geoprobe, Hollow stem auger	**TOP OF CASING ELEVATION**	493.72 ft above msl
BORING DIAMETER	8-inch	**SCREENED INTERVALS**	29 to 34 fbg
LOGGED BY	A. McDonell	**DEPTH TO WATER (First Encountered)**	20.0 fbg ▽
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Cleared by air-knife-assisted vacuum truck to 8 feet below grade		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Top Soil	0.5	Flush-grade 8" well box
							Fill: Topsoil, brick fragments, cobbles.	4.0	
0		MW-12 @5		5	GW		**Silty GRAVEL:** Brown; dry.	9.0	
0		MW-12 @10		10	SW		**SAND:** Brown; wet.		
							Silty SAND: Brown; dry.	12.0	
0		MW-12 @15		15	ML		**SILT:** Brown; moist; moderate estimated plasticity.		Portland Type I/II
0		MW-12 @20		20			@ 20 fbg: wet. ▽	21.0	
					SW		**Silty SAND with gravel:** Grey; moist.	23.5	
23		MW-12 @25		25	ML		**SILT:** Grey; moist; moderate estimated plasticity.		Bentonite Seal
52		MW-12 @30		30			@ 26 fbg: color grades to brownish grey.	32.0	2"-diam., 0.010" Slotted Schedule 40 PVC
183		MW-12 @35		35	ML		**SILT with sand:** brownish grey; moist; moderate estimated plasticity. @ 34 fbg: **SILT:** Yellow brown; moist; moderate estimated plasticity.		Monterey Sand #2/12
11		MW-12 @39.5		40					Bentonite Seal
6		MW-12 @42							
5.2		MW-12 @44.5		45				45.0	Bottom of Boring @ 45 fbg

WELL LOG (PID) I:\CHEVRON\3122-\312264-1\312264-GINT.GPJ DEFAULT.GDT 5/3/12

APPENDIX E

CRA'S STANDARD OPERATING PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

STANDARD FIELD PROCEDURES FOR SOIL BORING AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling
Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting
If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying
Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I, II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

APPENDIX F

GETTLER RYAN'S MARCH 20, 2012 WELL DEVELOPMENT
AND FIRST QUARTER 2012 MONITORING AND SAMPLING REPORT

GETTLER-RYAN INC.

TRANSMITTAL

March 20, 2012
G-R #385876

TO: Ms. Kiersten Hoey
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Former Chevron Service Station
#307233
2259 First Street
Livermore, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Well Development of March 9, 2012 and** **First Quarter Event of March 12, 2012**

COMMENTS:

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

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

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

trans/9-0271

WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #307233** Job #: **385876**

Site Address: **2259 First Street** Event Date: 3.9.12

City: **Livermore, CA** Sampler: FT

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y (N)	REPLACE CAP Y (N)	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y (N)
MW-10	OK	→	→	→	→	→	→	↓	↓	8" WELL BOX NO WELL BOX I.D.	
MW-11	OK	→	→	→	→	→	→	↓	↓	↓ ↓	
MW-12	OK	→	→	→	→	→	→	↓	↓	↓ ↓	

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #307233** Job #: **385876**

Site Address: **2259 First Street** Event Date: 3-12-12

City: **Livermore, CA** Sampler: ML FT

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	OK							NO	NO	EMCO/12"/2	NO
MW-2	OK									"	
MW-3	OK									MORRISON/7"/2	
MW-4	OK									"	
MW-5	OK									EMCO/12"/2	
MW-6	OK									MORRISON/7"/2	
MW-7	OK									"	
MW-8	OK									EMCO/12"/2	
MW-9	OK									MORRISON/7"/2	
MW-10	OK									NO ID/8"/2	
MW-11	OK									"	
MW-12	OK									"	

Comments

FORMER CHEVRON SERVICE STATION #307233
Livermore, CA

WELL DEVELOPMENT EVENT OF
March 9, 2012

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.9.12 (inclusive)
City: Livermore, CA | Sampler: FT

Well ID: MW-10 | Date Monitored: 3.9.12
Well Diameter: 2 in.
Initial Total Depth: 32.38 ft.
Final Total Depth: 32.38 ft.
Depth to Water: 28.00 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

4.38 xVF .17 = .74 x10 case volume = Estimated Purge Volume: 7.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
- Disposable Bailer ✓
- Stainless Steel Bailer ✓
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0930 | Weather Conditions: SUNNY
Sample Time/Date: — / — | Water Color: BRN. | Odor: Y / (N)
Approx. Flow Rate: .50 → .75 gpm. | Sediment Description: SILTY
Did well de-water? Yes | If yes, Time: 0950 | Volume: 4.0 gal. | DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0931	.75	7.72	712	18.4		
0932	1.5	7.70	710	19.0		
0937	2.25	7.68	709	19.6		
0942	3.0	7.66	707	20.0		
0947	3.75	7.65	705	20.4		
0950	4.0	7.67	706	20.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: INITIAL CGI READING: 10 PPM
DEVELOP ONLY
8" WELL BOX

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: **Chevron #307233** Job Number: **385876**
Site Address: **2259 First Street** Event Date: 3.9.12 (inclusive)
City: **Livermore, CA** Sampler: FT

Well ID **MW-11** Date Monitored: 3.9.12
Well Diameter 2 in.
Initial Total Depth 34.73 ft.
Final Total Depth 34.73 ft.
Depth to Water 31.48 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

3.25 xVF .17 = .55 x10 case volume = Estimated Purge Volume: 6.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: [redacted]

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer ✓
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer ✓
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1015 Weather Conditions: SUNNY
Sample Time/Date: — / — Water Color: BRN. Odor: Y / (N)
Approx. Flow Rate: ✓ gpm. Sediment Description: S. SILTY
Did well de-water? Yes If yes, Time: 1035 Volume: 4.0 gal. DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1018	.60	7.82	696	19.2		
1021	1.20	7.80	699	18.8		
1024	1.80	7.79	702	18.7		
1027	2.40	7.77	704	18.8		
1031	3.00	7.75	706	18.9		
1035	4.0	7.74	708	18.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: INITIAL CGI READING: 15 PPM
DEVELOP ONLY
8" WELL BOX

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.9.12 (inclusive)
City: Livermore, CA | Sampler: FT

Well ID: MW-12 | Date Monitored: 3.9.12
Well Diameter: 2 in.
Initial Total Depth: 34.49 ft.
Final Total Depth: 34.49 ft.
Depth to Water: 25.43 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

9.06 xVF .17 = 1.54 x10 case volume = Estimated Purge Volume: 15.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: [redacted]

Purge Equipment:
- Disposable Bailer: ✓
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1110 | Weather Conditions: SUNNY
Sample Time/Date: — / — | Water Color: BRN. | Odor: (Y) / N SLIGHT
Approx. Flow Rate: — gpm. | Sediment Description: S. SILTY
Did well de-water? YES | If yes, Time: 1145 | Volume: 6.0 gal. | DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1118	1.5	8.10	810	18.3		
1126	3.0	8.08	813	18.1		
1134	4.5	8.06	816	18.0		
1145	6.0	8.04	821	17.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: INITIAL CGI READING: 20 PPM
DEVELOP ONLY
8" WELL BOX

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

FORMER CHEVRON SERVICE STATION #307233
Livermore, CA

QUARTERLY MONITORING EVENT OF
March 12, 2012

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.12.12 (inclusive)
City: Livermore, CA | Sampler: FT

Well ID: MW-1 | Date Monitored: 3.12.12
Well Diameter: 2
Total Depth: 58.81 ft.
Depth to Water: 41.35 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

17.46 xVF .17 = 2.96 x3 case volume = Estimated Purge Volume: 9.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 44.84

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 1230 | Weather Conditions: CLOUDY/SUNNY
Sample Time/Date: 1300 / 3.12.12 | Water Color: CLEAN | Odor: Ⓨ / N | SLIGHT
Approx. Flow Rate: ~ gpm. | Sediment Description: NONE
Did well de-water? NO | If yes, Time: _____ | Volume: _____ gal. | DTW @ Sampling: 41.40

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (Ⓒ / F)	D.O. (mg/L)	ORP (mV)
1236	3.0	7.52	728	18.4		
1242	6.0	7.49	724	18.6		
1249	9.0	7.46	720	18.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: EMCO 12" OK

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
Site Address: 2259 First Street Event Date: 3-12-12 (inclusive)
City: Livermore, CA Sampler: ML

Well ID MW-2 Date Monitored: 3-12-12
Well Diameter 2
Total Depth 58.60 ft.
Depth to Water 41.84 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.76 xVF .17 = 2.8 x3 case volume = Estimated Purge Volume: 8.4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 45.19

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0830 Weather Conditions: SUNNY
Sample Time/Date: 0910 / 3-12-12 Water Color: CLOUDY Odor: Y / N
Approx. Flow Rate: — gpm. Sediment Description: NONE
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 42.02

Time (2400 hr.)	Volume (gal.)	pH	Conductivity mS (~~µmhos/cm~~ µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0840	3	7.50	0.76	12.0		
0850	6	7.46	0.80	12.4		
0858	8.5	7.44	0.81	12.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3-12-12 (inclusive)
City: Livermore, CA | Sampler: MC

Well ID: MW-3 | Date Monitored: 3-12-12
Well Diameter: 2
Total Depth: 59.36 ft.
Depth to Water: 41.66 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

17.70 xVF .17 = 3.0 x3 case volume = Estimated Purge Volume: 9 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 45.20

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1115 | Weather Conditions: Sunny
Sample Time/Date: 1200 / 3-12-12 | Water Color: Cloudy | Odor: Y / (N)
Approx. Flow Rate: - gpm. | Sediment Description: Light
Did well de-water? NO | If yes, Time: | Volume: gal. | DTW @ Sampling: 41.77

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ~~µmhos/cm~~ mS (~~µS~~)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1125	3	7.72	0.92	14.9		
1135	6	7.69	0.90	15.4		
1144	9	7.67	0.94	15.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
Site Address: 2259 First Street Event Date: 3-12-12 (inclusive)
City: Livermore, CA Sampler: ML

Well ID MW-4 Date Monitored: 3-12-12
Well Diameter 2
Total Depth 58.93 ft.
Depth to Water 42.99 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

15.94 xVF .17 = 2.7 x3 case volume = Estimated Purge Volume: 8.1 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 46.17

Purge Equipment:
Disposable Bailer X
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1215 Weather Conditions: Sunny
Sample Time/Date: 1250 / 3-12-12 Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: - gpm. Sediment Description: Light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 43.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ~~umhos/cm~~ mS	Temperature (C) / F	D.O. (mg/L)	ORP (mV)
1222	2.75	7.66	1.01	15.4		
1230	5.5	7.60	1.06	15.6		
1238	8.25	7.61	1.07	15.8		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #307233** Job Number: **385876**

Site Address: **2259 First Street** Event Date: 3-12-12 (inclusive)

City: **Livermore, CA** Sampler: ML

Well ID **MW-5** Date Monitored: 3-12-12

Well Diameter **2**

Total Depth 58.87 ft.

Depth to Water 42.15 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.72 xVF .17 = 2.8 x3 case volume = Estimated Purge Volume: 8.4 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 45.49

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 0930 Weather Conditions: Sunny

Sample Time/Date: 1010 13-12-12 Water Color: Clear Odor: Y / (N)

Approx. Flow Rate: ~ gpm. Sediment Description: Light

Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 42.41

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (~~umhos/cm~~ mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0940	3	7.50	11.5	0.90		
0950	6	7.46	11.9	0.86		
0958	8.5	7.47	11.9	0.86		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
Site Address: 2259 First Street Event Date: 3-12-12 (inclusive)
City: Livermore, CA Sampler: ML

Well ID MW-6 Date Monitored: 3-12-12
Well Diameter 2
Total Depth 58.94 ft.
Depth to Water 42.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

16.44 xVF .17 = 2.7 x3 case volume = Estimated Purge Volume: 8.1 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 45.78

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	X	Disposable Bailer	X
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1025 Weather Conditions: Sunny
Sample Time/Date: 1100 13-12-12 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 42.88

Time (2400 hr.)	Volume (gal.)	pH	Conductivity mS (~~umhos/cm~~ - ~~pS~~)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1034	2.75	7.52	0.76	14.1		
1043	5.5	7.46	0.82	14.4		
1050	8.25	7.47	0.80	14.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3-12-12 (inclusive)
City: Livermore, CA | Sampler: ML

Well ID: MW-7 | Date Monitored: 3-12-12
Well Diameter: 2
Total Depth: 32.83 ft.
Depth to Water: 32.38 ft.
0.45 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☒ Check if water column is less then 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other: ___

Sampling Equipment:
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other: ___

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ gal
Amt Removed from Well: ___ gal
Water Removed: ___

Start Time (purge): ___ Weather Conditions: ___
Sample Time/Date: ___ / ___ Water Color: ___ Odor: Y / N ___
Approx. Flow Rate: ___ gpm. Sediment Description: ___
Did well de-water? ___ If yes, Time: ___ Volume: ___ gal. DTW @ Sampling: ___

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: WELL DRY INSUFFICIENT WATER to Sample

Add/Replaced Lock: ___ Add/Replaced Plug: ___ Add/Replaced Bolt: ___

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/Facility#: **Chevron #307233** Job Number: **385876**

Site Address: **2259 First Street** Event Date: 3.12.12 (inclusive)

City: **Livermore, CA** Sampler: FT

Well ID: MW-8 Date Monitored: 3.12.12

Well Diameter: 2

Total Depth: 38.89 ft.

Depth to Water: 38.48 ft. ☑ Check if water column is less then 0.50 ft.

.41 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Volume Factor (VF)				
3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38	
4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80	

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ______

Purge Equipment:
- Disposable Bailer ______
- Stainless Steel Bailer ______
- Stack Pump ______
- Suction Pump ______
- Grundfos ______
- Peristaltic Pump ______
- QED Bladder Pump ______
- Other: ______

Sampling Equipment:
- Disposable Bailer ______
- Pressure Bailer ______
- Metal Filters ______
- Peristaltic Pump ______
- QED Bladder Pump ______
- Other: ______

Time Started: ______ (2400 hrs)
Time Completed: ______ (2400 hrs)
Depth to Product: ______ ft
Depth to Water: ______ ft
Hydrocarbon Thickness: ______ ft
Visual Confirmation/Description: ______
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ______ gal
Amt Removed from Well: ______ gal
Water Removed: ______

Start Time (purge): ______ Weather Conditions: ______

Sample Time/Date: ______ / ______ Water Color: ______ Odor: Y / N ______

Approx. Flow Rate: ______ gpm. Sediment Description: ______

Did well de-water? ______ If yes, Time: ______ Volume: ______ gal. DTW @ Sampling: ______

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (μmhos/cm - μS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: Emco 12" OK

Dry well

INSUFFICIENT WATER TO SAMPLE

Add/Replaced Lock: ______ Add/Replaced Plug: ______ Add/Replaced Bolt: ______

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.12.12 (inclusive)
City: Livermore, CA | Sampler: FT

Well ID: MW-9 | Date Monitored: 3.12.12
Well Diameter: 2
Total Depth: 39.85 ft.
Depth to Water: 34.27 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.58 xVF .17 = .94 x3 case volume = Estimated Purge Volume: 3.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.38

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 1145 | Weather Conditions: Cloudy/Sunny
Sample Time/Date: 1215 / 3.12.12 | Water Color: Brn. | Odor: Y / (N)
Approx. Flow Rate: ~ gpm. | Sediment Description: Silty
Did well de-water? No | If yes, Time: _____ | Volume: _____ gal. | DTW @ Sampling: 34.95

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1148	1.0	7.34	650	17.9		
1151	2.0	7.32	648	18.1		
1154	3.0	7.30	645	18.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: Morrison 6" (OK)

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 Job Number: 385876
Site Address: 2259 First Street Event Date: 3.12.12 (inclusive)
City: Livermore, CA Sampler: FT

Well ID MW-10 Date Monitored: 3.12.12
Well Diameter 2
Total Depth 32.38 ft.
Depth to Water 28.11 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

4.27 xVF .17 = .72 x3 case volume = Estimated Purge Volume: 2.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.96

Purge Equipment:
Disposable Bailer ✓
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer ✓
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0930 Weather Conditions: SUNNY
Sample Time/Date: 1000 / 3.12.12 Water Color: LT. BRN. Odor: Y / (N)
Approx. Flow Rate: — gpm. Sediment Description: SLIGHTLY SILTY
Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 28.93

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0933	.75	7.38	640	17.2		
0936	1.5	7.36	645	17.8		
0940	2.0	7.35	649	18.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: 8" Box OK

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.12.12 (inclusive)
City: Livermore, CA | Sampler: FT

Well ID: MW-11 | Date Monitored: 3.12.12
Well Diameter: 2
Total Depth: 34.70 ft.
Depth to Water: 33.35 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

1.35 xVF .17 = ~~.22~~ x3 case volume = Estimated Purge Volume: ~~.66~~ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: —

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment:
- Disposable Bailer ✓
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): | Weather Conditions: SUNNY
Sample Time/Date: 1030 / 3.12.12 | Water Color: BRN | Odor: Y / (N)
Approx. Flow Rate: gpm. | Sediment Description: SILTY
Did well de-water? | If yes, Time: | Volume: gal. | DTW @ Sampling: —

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: GRAB SAMPLED WELL. INSUFFICIENT WATER FOR PURGING WOULD HAVE DE-WATERED. 8" BOX OK

Add/Replaced Lock: | Add/Replaced Plug: | Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #307233 | Job Number: 385876
Site Address: 2259 First Street | Event Date: 3.12.12 (inclusive)
City: Livermore, CA | Sampler: FR

Well ID: MW-12 | Date Monitored: 3.12.12
Well Diameter: 2
Total Depth: 34.49 ft.
Depth to Water: 26.97 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

7.52 xVF .17 = 1.27 x3 case volume = Estimated Purge Volume: 4.0 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 28.47

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Metal Filters	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1050 | Weather Conditions: SUNNY
Sample Time/Date: 1130 / 3.12.12 | Water Color: BRN | Odor: (O) / N MODERATE
Approx. Flow Rate: — gpm. | Sediment Description: S, SILTY
Did well de-water? YES If yes, Time: 1057 Volume: 3.0 gal. DTW @ Sampling: 28.45

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1053	1.5	7.46	647	17.2		
1057	3.0	7.43	656	17.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN/ TPH-DRO w/sgc(8015)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY SAMPLES

COMMENTS: 8" WELL BOX

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

5⌀⌀ AMBER

⌀31212-⌀7

For Lancaster Laboratories use only

Acct. #: ______ Sample # ______ Group #: 020405

Please forward the lab results directly to the Lead Consultant and cc: G-R.

~~SS#307233-OML G-R#385878 Global ID#T0600196022~~

Facility #: ~~2259 FIRST STREET, LIVERMORE, CA~~

Site Address: ~~EF~~ ~~CRAHK Hoey~~

Chevron PM: ~~G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568~~ Lead Consultant:

Consultant/Office: ~~Deanna L. Harding (deanna@grinc.com)~~

Consultant Prj. Mgr.: ~~925-551-7555~~ ~~925-551-7899~~

Consultant Phone #: ______ Fax #: ______

Sampler: MIKE LOMBARD

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☐ Potable ☐ NPDES)	Oil ☐ Air	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	TPH-DRO w/sgc COLUMN				
Preservation Codes									H	H										
QA	3-12-12		X			X		2	X	X										
MW-1	↓	1300	X			X		8	X	X	X					X				
MW-2	↓	0910	X			X		8	X	X	X					X				
MW-3	↓	1200	X			X		8	X	X	X					X				
MW-4	↓	1250	X			X		8	X	X	X					X				
MW-5	↓	1010	X			X		8	X	X	X					X				
MW-6	↓	1100	X			X		8	X	X	X					X				
MW-9	↓	1215	X			X		8	X	X	X					X				
MW-10	↓	1000	X			X		8	X	X	X					X				
MW-11	↓	1030	X			X		8	X	X	X					X				
MW-12	↓	1130	X			X		8	X	X	X					X				

Preservative Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Please report DRO w/sgc using 10 grams of silica and also report 1 gram shake results

Turnaround Time Requested (TAT) (please circle)

(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)

QC Summary Type I - Full EDF/EDD
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3-12-12	1330	[signature]	3-12-12	1330
[signature]	3-12-12	1550	A. Salfer [signature]	12MAR12	1550

Relinquished by Commercial Carrier: UPS FedEx Other ______ Received by: Date Time

Temperature Upon Receipt ______ C° Custody Seals Intact? Yes No

APPENDIX G

SOIL AND GROUNDWATER LABORATORY REPORTS

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

Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

March 07, 2012

Project: 307233

Submittal Date: 02/18/2012
Group Number: 1290574
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-10-S-5-120214 Grab Soil	6552754
MW-11-S-5-120214 Grab Soil	6552755
MW-10-S-10-120215 Grab Soil	6552756
MW-10-S-15-120215 Grab Soil	6552757
MW-10-S-20-120215 Grab Soil	6552758
MW-10-S-25-120215 Grab Soil	6552759
MW-10-S-30-120215 Grab Soil	6552760
MW-10-S-35-120215 Grab Soil	6552761
MW-10-S-39.5-120215 Grab Soil	6552762

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

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey

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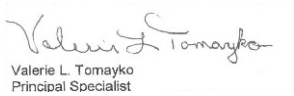
Questions? Contact your Client Services Representative
Natalie R Luciano at (717) 556-7258

Respectfully Submitted,



Valerie L. Tomayko
Principal Specialist

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Analysis Report

Sample Description: MW-10-S-5-120214 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552754
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/14/2012 10:55 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1005

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.77
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside of the method required holding time, and surrogate recoveries are within the QC acceptance limits. Since the hold time had expired prior to the second extraction all results are reported from the original extract. Similar results were obtained in both extracts.
The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 16:00	Chelsea B Eastep	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:48	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 17:49	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-5-120214 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552754
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/14/2012 10:55 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1005

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201204926817	02/18/2012 17:49	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/20/2012 23:48	Laura M Krieger	25.77
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:47	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 14:49	Carrie E Miller	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-5-120214 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6552755
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/14/2012 14:00 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1105

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.95
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.57
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	5.5	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 16:22	Chelsea B Eastep	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:00	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 00:24	Laura M Krieger	26.57
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:55	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 17:56	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201204926817	02/18/2012 17:57	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201204926817	02/18/2012 17:57	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201204926817	02/18/2012 17:58	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 15:10	Heather E Williams	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-11-S-5-120214 Grab Soil**
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6552755
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/14/2012 14:00 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1105

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-10-S-10-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552756
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 09:20 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1010

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.06
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.06
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.06
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.06
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.5
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 16:44	Chelsea B Eastep	1.06
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:01	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 01:00	Laura M Krieger	23.5
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:00	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 15:31	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-15-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552757
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 09:36 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1015

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.03
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.03
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.82
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 17:07	Chelsea B Eastep	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:06	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 01:36	Laura M Krieger	26.82
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:05	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 15:52	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-20-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552758
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 09:39 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1020

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.4
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 17:29	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:13	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 02:13	Laura M Krieger	26.4
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:12	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 16:13	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-25-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552759
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 09:46 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1025

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.93
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	6.2	6.0	18	1

The reverse surrogate, capric acid, was present at <1%.
Reporting limits were raised due to interference from the sample matrix.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120521AA	02/21/2012 17:13	Chelsea B Eastep	1.1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	7	201205226827	02/21/2012 15:48	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:18	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 02:49	Laura M Krieger	24.93
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:17	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 16:34	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-30-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552760
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 10:20 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1030

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.023	0.23	46.13
10237	Ethylbenzene	100-41-4	N.D.	0.046	0.23	46.13
10237	Toluene	108-88-3	N.D.	0.046	0.23	46.13
10237	Xylene (Total)	1330-20-7	N.D.	0.046	0.23	46.13
Reporting limits were raised due to interference from the sample matrix.						
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	250	11	11	263.99
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	29	4.0	12	1
The reverse surrogate, capric acid, was present at <1%.						

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	Q120541AA	02/23/2012 15:53	Lauren C Temple	46.13
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:23	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12044A34D	02/21/2012 15:07	Laura M Krieger	263.99
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:23	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 16:55	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-35-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552761
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 10:26 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1035

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.0007	0.0005	0.005	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.97
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.2
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	4.3	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 18:13	Chelsea B Eastep	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:03	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:37	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34A	02/23/2012 21:17	Laura M Krieger	24.2
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:37	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 17:16	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-10-S-39.5-120215 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-10

LLI Sample # SW 6552762
LLI Group # 1290574
Account # 10880

Project Name: 307233

Collected: 02/15/2012 10:30 by AM

Submitted: 02/18/2012 09:00
Reported: 03/07/2012 16:11

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1039

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.8
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	4.3	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120511AA	02/20/2012 18:35	Chelsea B Eastep	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201204926817	02/18/2012 18:04	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:43	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34A	02/23/2012 21:53	Laura M Krieger	25.8
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201204926817	02/18/2012 17:42	Christopher D Meeks	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120510004A	02/25/2012 17:37	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120510004A	02/20/2012 17:40	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1290574
Reported: 03/07/12 at 04:11 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B120511AA	Sample number(s): 6552754-6552758,6552761-6552762								
Benzene	N.D.	0.0005	0.005	mg/kg	99	97	80-120	2	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	98	98	80-120	1	30
Toluene	N.D.	0.001	0.005	mg/kg	98	97	80-120	1	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	98	97	80-120	1	30
Batch number: B120521AA	Sample number(s): 6552759								
Benzene	N.D.	0.0005	0.005	mg/kg	99		80-120		
Ethylbenzene	N.D.	0.001	0.005	mg/kg	100		80-120		
Toluene	N.D.	0.001	0.005	mg/kg	99		80-120		
Xylene (Total)	N.D.	0.001	0.005	mg/kg	100		80-120		
Batch number: Q120541AA	Sample number(s): 6552760								
Benzene	N.D.	0.025	0.25	mg/kg	94	93	80-120	1	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	100	101	80-120	1	30
Toluene	N.D.	0.050	0.25	mg/kg	100	101	80-120	1	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	98	99	80-120	1	30
Batch number: 12044A34D	Sample number(s): 6552754-6552760								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	95	96	67-119	1	30
Batch number: 12054A34A	Sample number(s): 6552761-6552762								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	81	81	67-119	0	30
Batch number: 120510004A	Sample number(s): 6552754-6552762								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	83		50-143		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B120521AA	Sample number(s): 6552759 UNSPK: P549098								
Benzene	-200 (2)	381 (2)	55-143	69*	30				
Ethylbenzene	68	148*	44-141	26	30				
Toluene	125	162*	50-146	13	30				
Xylene (Total)	59	119	44-136	20	30				
Batch number: Q120541AA	Sample number(s): 6552760 UNSPK: P553758								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1290574
Reported: 03/07/12 at 04:11 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzene	119		55-143						
Ethylbenzene	860 (2)		44-141						
Toluene	1397 (2)		50-146						
Xylene (Total)	1318 (2)		44-136						
Batch number: 120510004A	Sample number(s): 6552754-6552762 UNSPK: P552752 BKG: P552752								
TPH-DRO soil C10-C28 w/Si Gel	81		30-159			9.2	10	10 (1)	20

Surrogate Quality Control

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

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B120511AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6552754	95	83	103	90
6552755	98	92	98	92
6552756	99	99	99	95
6552757	101	101	97	95
6552758	100	99	100	96
6552761	99	98	101	96
6552762	100	99	98	96
Blank	98	101	98	96
LCS	100	103	98	99
LCSD	100	101	100	100
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B120521AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6552759	101	102	99	94
Blank	98	103	99	95
LCS	99	102	100	98
MS	107	108	212*	90
MSD	111	118*	328*	194*
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: Q120541AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6552760	85	85	95	92
Blank	94	95	98	100

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1290574
Reported: 03/07/12 at 04:11 PM

Surrogate Quality Control

LCS	94	90	98	105
LCSD	95	91	99	100
MS	74	69*	78	81
Limits:	71-114	70-109	70-123	70-111

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12044A34D

	Trifluorotoluene-F
6552754	81
6552755	78
6552756	76
6552757	76
6552758	77
6552759	75
6552760	115
Blank	88
LCS	99
LCSD	88
Limits:	61-122

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12054A34A

	Trifluorotoluene-F
6552761	77
6552762	82
Blank	89
LCS	85
LCSD	87
Limits:	61-122

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 120510004A

	Orthoterphenyl
6552754	25*
6552755	90
6552756	86
6552757	87
6552758	84
6552759	87
6552760	85
6552761	83
6552762	81
Blank	83
DUP	84
LCS	89
MS	88
Limits:	59-129

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

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Where quality is a science.

3 of 3

021712-01

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6552754-62 SCR#:

252931

G# 1290574

Facility #: 307233
Site Address: 2259 FIRST ST, LIVERMORE, CA
Chevron PM: R. KAMBIN Lead Consultant: CRA
Consultant/Office: CRA / EMERYVILLE
Consultant Prj. Mgr.: K. HOEY
Consultant Phone #: 510 420 0700 Fax #: 510 420 9170
Sampler: AM
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐
MW-10	S		5	12/02/14	1055	Y	X		1	X	X	X			
MW-11	S		5	12/02/14	1400	Y	X		1	X	X	X			

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
Email report and EDF to khoey@cravorld.com

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	12/14/12	1700	Received by: Secure location CRA		
Relinquished by:	2/17/12	1037	Received by:	2/17/12	1037
Relinquished by:	2/17/12	1630	Received by: FE		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	2/18/12	0700
Temperature Upon Receipt ____ C°			Custody Seals Intact? Yes No		

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

021712-01 2of3

Acct. #: 10880 For Lancaster Laboratories use only Sample #: 6552754-62 SCR#: 252929

C# 1290574

Facility #: 307233
Site Address: 2259 First Street, Livermore, CA
Chevron PM: Roya Kambin Lead Consultant: CRA
Consultant/Office: CRA / Emeryville
Consultant Prj. Mgr.: Kiersten Hoey
Consultant Phone #: 510.420.0700 Fax #: 510.420.9170
Sampler: AM
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐
MW-10	S		10	12/02/15	0920		X		1	X	X	X			
MW-10	S		15		0936		X		1	X	X	X			
MW-10	S		20		0939		X		1	X	X	X			
MW-10	S		25		0946		X		1	X	X	X			
MW-10	S		30		1020		X		1	X	X	X			
MW-10	S		35		1026		X		1	X	X	X			
MW-10	S		~~29.5~~ 39.5		1030		X		1	X	X	X			

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
Report and EDF to khoey@craworld.com

Turnaround Time Requested (TAT) (please circle)
STD TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	12/15/12	1810	Received by: Secure location CRA		
Relinquished by:	12/17/12	1037	Received by:	12/17/12	1037
Relinquished by:	12/17/12	1630	Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	12/18/12	1500
Temperature Upon Receipt 2.5 C°			Custody Seals Intact? Yes No		

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

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Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

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

ppb parts per billion

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

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

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

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

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

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

March 20, 2012

Project: 307233

Submittal Date: 02/23/2012
Group Number: 1291378
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-11-S-10-120216 Grab Soil	6556989
MW-11-S-15-120216 Grab Soil	6556990
MW-11-S-20-120216 Grab Soil	6556991
MW-11-S-30-120216 Grab Soil	6556992
MW-11-S-35-120216 Grab Soil	6556993
MW-11-S-39.5-120216 Grab Soil	6556994
MW-12-S-5-120216 Grab Soil	6556995
MW-12-S-10-120217 Grab Soil	6556996
MW-12-S-15-120217 Grab Soil	6556997
MW-12-S-20-120217 Grab Soil	6556998
MW-12-S-25-120217 Grab Soil	6556999
MW-12-S-30-120217 Grab Soil	6557000
MW-12-S-35-120217 Grab Soil	6557001
MW-12-S-39.5-120217 Grab Soil	6557002
MW-12-S-42-120217 Grab Soil	6557003
MW-12-S-44.5-120217 Grab Soil	6557004

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

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey

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Respectfully Submitted,

Natalie R. Luciano
Specialist

(717) 556-7258

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Analysis Report

Sample Description: MW-11-S-10-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556989
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 08:40 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1110

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.23
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 18:43	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526846	02/24/2012 00:25	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:43	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 17:31	Laura M Krieger	25.23
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:44	Scott W Freisher	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	2	120590005A	03/01/2012 01:21	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-15-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556990
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 08:50 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1115

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.03
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.03
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.03
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.03
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.04
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 19:05	Chelsea B Eastep	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:48	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 18:07	Laura M Krieger	24.04
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:49	Scott W Freisher	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 15:39	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-20-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556991
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 08:55 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1120

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.32
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1

The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 19:27	Chelsea B Eastep	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:57	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 18:43	Laura M Krieger	24.32
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/23/2012 23:56	Scott W Freisher	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 16:02	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-30-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556992
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 09:00 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1130

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	22.98
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	4.1	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 19:50	Chelsea B Eastep	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:04	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 19:19	Laura M Krieger	22.98
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:05	Scott W Freisher	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 16:25	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-35-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556993
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 09:05 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1135

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.27
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 20:13	Chelsea B Eastep	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526846	02/24/2012 00:26	Scott W Freisher	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:11	Scott W Freisher	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 19:55	Laura M Krieger	24.27
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526846	02/24/2012 00:13	Scott W Freisher	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 16:48	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-11-S-39.5-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-11

LLI Sample # SW 6556994
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 09:10 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1139

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.98
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.2
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 20:35	Chelsea B Eastep	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:14	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 20:32	Laura M Krieger	24.2
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:14	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 17:11	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-12-S-5-120216 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6556995
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/16/2012 16:06 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1205

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.8
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 20:57	Chelsea B Eastep	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:18	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 21:08	Laura M Krieger	24.8
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:18	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 17:34	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-12-S-10-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6556996
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:10 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1210

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.96
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.64
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	4.4	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 21:19	Chelsea B Eastep	0.96
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:21	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 21:44	Laura M Krieger	25.64
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:22	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 17:57	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-12-S-15-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6556997
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:15 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1215

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.39
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 21:41	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:24	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 22:20	Laura M Krieger	24.39
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:25	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 18:20	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-12-S-20-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6556998
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:27 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1220

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.0006	0.0005	0.005	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.95
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.95
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.58
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120581AA	02/27/2012 22:04	Chelsea B Eastep	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:28	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/28/2012 22:56	Laura M Krieger	24.58
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:28	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 18:43	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

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Analysis Report

Sample Description: MW-12-S-25-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6556999
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:35 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1225

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.098	0.025	0.25	49.7
10237	Ethylbenzene	100-41-4	1.5	0.050	0.25	49.7
10237	Toluene	108-88-3	N.D.	0.050	0.25	49.7
10237	Xylene (Total)	1330-20-7	0.91	0.050	0.25	49.7
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	500	20	20	500.5
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	72	4.0	12	1

The reverse surrogate, capric acid, was present at <1%.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	R120612AA	03/02/2012 07:41	Stephanie A Selis	49.7
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:31	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 03:09	Laura M Krieger	500.5
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:31	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 19:06	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-12-S-30-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6557000
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:41 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1230

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.002	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	24	1	1	24.7
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	65	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120621AA	03/02/2012 14:51	Emily R Styer	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:34	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 02:33	Laura M Krieger	24.7
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:35	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 19:29	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-12-S-35-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6557001
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:45 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1235

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.15	0.099	0.99	197.24
10237	Ethylbenzene	100-41-4	4.8	0.20	0.99	197.24
10237	Toluene	108-88-3	N.D.	0.20	0.99	197.24
10237	Xylene (Total)	1330-20-7	11	0.20	0.99	197.24
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1,400	100	100	2596.05
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	300	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	R120612AA	03/02/2012 08:49	Stephanie A Selis	197.24
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:39	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 03:46	Laura M Krieger	2596.05
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:40	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 19:52	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-12-S-39.5-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6557002
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 09:47 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1239

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.062	0.0005	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	0.001	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	0.002	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1.5	1.0	1.0	25.46
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120591AA	02/28/2012 13:18	Kerri E Legerlotz	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:43	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 00:09	Laura M Krieger	25.46
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:43	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 20:15	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-12-S-42-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6557003
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 10:25 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1242

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.023	0.0005	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1

The reverse surrogate, capric acid, was present at <1%.
The surrogate data is outside the QC limits. Results from the reextraction are within the limits. The hold time had expired prior to the reextraction therefore, all results are reported from the original extract. Similar results were obtained in both extracts.

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120591AA	02/28/2012 13:40	Kerri E Legerlotz	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:46	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 00:45	Laura M Krieger	25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:47	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 20:38	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-12-S-44.5-120217 Grab Soil
Facility# 307233 CRAW
2259 First St-Livermore T0600196622 MW-12

LLI Sample # SW 6557004
LLI Group # 1291378
Account # 10880

Project Name: 307233

Collected: 02/17/2012 10:30 by GW

Submitted: 02/23/2012 15:25
Reported: 03/20/2012 09:37

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1244

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10237	Benzene	71-43-2	0.021	0.0005	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.7
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
	The reverse surrogate, capric acid, was present at <1%.					

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX 8260 Soil	SW-846 8260B	1	B120591AA	02/28/2012 14:03	Kerri E Legerlotz	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201205526848	02/24/2012 16:01	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:49	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12054A34B	02/29/2012 01:21	Laura M Krieger	24.7
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201205526848	02/24/2012 15:50	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	120590005A	03/01/2012 21:01	Glorines Suarez-Rivera	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	120590005A	02/28/2012 18:00	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1291378
Reported: 03/20/12 at 09:37 AM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B120581AA	Sample number(s): 6556989-6556998								
Benzene	N.D.	0.0005	0.005	mg/kg	97	102	80-120	5	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	95	98	80-120	3	30
Toluene	N.D.	0.001	0.005	mg/kg	95	98	80-120	3	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	94	98	80-120	3	30
Batch number: B120591AA	Sample number(s): 6557002-6557004								
Benzene	N.D.	0.0005	0.005	mg/kg	99	96	80-120	3	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	100	99	80-120	1	30
Toluene	N.D.	0.001	0.005	mg/kg	101	99	80-120	2	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	102	100	80-120	3	30
Batch number: B120621AA	Sample number(s): 6557000								
Benzene	N.D.	0.0005	0.005	mg/kg	96	100	80-120	4	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	93	99	80-120	5	30
Toluene	N.D.	0.001	0.005	mg/kg	94	98	80-120	4	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	95	100	80-120	5	30
Batch number: R120612AA	Sample number(s): 6556999,6557001								
Benzene	N.D.	0.025	0.25	mg/kg	101	103	80-120	2	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	87	92	80-120	5	30
Toluene	N.D.	0.050	0.25	mg/kg	98	101	80-120	4	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	90	102	80-120	12	30
Batch number: 12054A34B	Sample number(s): 6556989-6557004								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	81	81	67-119	0	30
Batch number: 120590005A	Sample number(s): 6556989-6557004								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	59		50-143		

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 120590005A	Sample number(s): 6556989-6557004 UNSPK: 6556989 BKG: 6556989								
TPH-DRO soil C10-C28 w/Si Gel	84		30-159			N.D.	N.D.	0 (1)	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1291378
Reported: 03/20/12 at 09:37 AM

Surrogate Quality Control

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

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B120581AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6556989	106	103	95	95
6556990	105	98	95	93
6556991	105	100	93	95
6556992	105	100	97	92
6556993	108	107	94	93
6556994	107	105	95	96
6556995	107	100	95	91
6556996	107	101	94	92
6556997	107	99	95	92
6556998	106	100	96	92
Blank	102	99	95	96
LCS	104	102	98	102
LCSD	104	103	97	101
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B120591AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6557002	103	102	100	95
6557003	101	100	100	98
6557004	100	99	100	96
Blank	102	101	99	94
LCS	103	107	100	98
LCSD	102	101	100	99
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B120621AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6557000	101	102	103	101
Blank	103	100	95	94
LCS	104	107	98	99
LCSD	104	105	98	101
Limits:	71-114	70-109	70-123	70-111

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: R120612AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6556999	78	85	91	83
6557001	78	82	111	106
Blank	92	98	90	79
LCS	90	95	88	77
LCSD	92	92	94	83

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ChevronTexaco Group Number: 1291378
Reported: 03/20/12 at 09:37 AM

Surrogate Quality Control

Limits:	71-114	70-109	70-123	70-111

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12054A34B

	Trifluorotoluene-F
6556989	79
6556990	81
6556991	75
6556992	75
6556993	73
6556994	78
6556995	74
6556996	77
6556997	71
6556998	76
6556999	423*
6557000	79
6557001	707*
6557002	70
6557003	75
6557004	73
Blank	82
LCS	85
LCSD	87
Limits:	61-122

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 120590005A

	Orthoterphenyl
6556989	74
6556990	80
6556991	81
6556992	77
6556993	71
6556994	75
6556995	81
6556996	77
6556997	74
6556998	80
6556999	74
6557000	69
6557001	77
6557002	75
6557003	38*
6557004	69
Blank	83
DUP	62
LCS	61
MS	82
Limits:	59-129

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: ChevronTexaco Group Number: 1291378
Reported: 03/20/12 at 09:37 AM

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

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For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6556989-7004 SCR#:

Ø22212-Ø2 P1 of 2

C# 1291378

Facility #: 307233
Site Address: 2259 FIRST STREET, LIVERMORE
Chevron PM: KAMBIN Lead Consultant: CRA
Consultant/Office: CRA / EMERYVILLE
Consultant Prj. Mgr.: HOEY
Consultant Phone #: 510.420.0700 Fax #: 510.420.9170
Sampler: GW
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + ~~MTBE~~ 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐
MW-12	S		10	12/02/17	0910		X		1	X	X	X			
MW-12	S		15		0915		X		1	X	X	X			
MW-12	S		20		0927		X		1	X	X	X			
MW-12	S		25		0935		X		1	X	X	X			
MW-12	S		30		0941		X		1	X	X	X			
MW-12	S		35		0945		X		1	X	X	X			
MW-12	S		39.5		0947		X		1	X	X	X			
MW-12	S		42		1025		X		1	X*	X*	X*			
MW-12	S		44.5		1030		X		1	X	X	X			

Comments / Remarks

email report and EDFs to khoey@crworld.com

*Added analysis request for sample MW-12-S (42) per KH mk2 2/24/12

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
~~24 hour~~ 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	02/17/12	1855	Received by: secure location CRA	02/17/12	1855
Relinquished by:	2/22/12	12:30	Received by: A. Huber 22FEB12	22FEB12	1230
Relinquished by: A. Huber 22FEB12		1630	Received by: SOUTHWEST		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	2/23/12	1525
Temperature Upon Receipt ____ C° 0.8			Custody Seals Intact? (Yes) No		

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Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

March 26, 2012

Project: 307233

Submittal Date: 03/14/2012
Group Number: 1295102
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
QA-T-120312 NA Water	6577208
MW-1-W-120312 Grab Water	6577209
MW-1-W-120312 Grab Water	6577210
MW-2-W-120312 Grab Water	6577211
MW-2-W-120312 Grab Water	6577212
MW-3-W-120312 Grab Water	6577213
MW-3-W-120312 Grab Water	6577214
MW-4-W-120312 Grab Water	6577215
MW-4-W-120312 Grab Water	6577216
MW-5-W-120312 Grab Water	6577217
MW-5-W-120312 Grab Water	6577218
MW-6-W-120312 Grab Water	6577219
MW-6-W-120312 Grab Water	6577220
MW-9-W-120312 Grab Water	6577221
MW-9-W-120312 Grab Water	6577222
MW-10-W-120312 Grab Water	6577223
MW-10-W-120312 Grab Water	6577224
MW-11-W-120312 Grab Water	6577225
MW-11-W-120312 Grab Water	6577226
MW-12-W-120312 Grab Water	6577227
MW-12-W-120312 Grab Water	6577228

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

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey

Respectfully Submitted,

Jill M. Parker
Senior Specialist

(717) 556-7262

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Analysis Report

Sample Description: QA-T-120312 NA Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 QA

LLI Sample # WW 6577208
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSLQA

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

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 02:06	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 02:06	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12075A53A	03/16/2012 12:46	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12075A53A	03/16/2012 12:46	Laura M Krieger	1

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Analysis Report

Sample Description: MW-1-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-1

LLI Sample # WW 6577209
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 13:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 02:33	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 02:33	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12075A53A	03/16/2012 20:19	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12075A53A	03/16/2012 20:19	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 21:19	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-1-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-1

LLI Sample # WW 6577210
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 13:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 09:21	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-2-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-2

LLI Sample # WW 6577211
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 09:10 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 03:01	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 03:01	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12082A53A	03/22/2012 17:52	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12082A53A	03/22/2012 17:52	Marie D John	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 21:42	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-2-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-2

LLI Sample # WW 6577212
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 09:10 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 09:44	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-3-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-3

LLI Sample # WW 6577213
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 03:28	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 03:28	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12082A53A	03/22/2012 18:18	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12082A53A	03/22/2012 18:18	Marie D John	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 22:04	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-3-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-3

LLI Sample # WW 6577214
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 10:06	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-4-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-4

LLI Sample # WW 6577215
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:50 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 03:56	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 03:56	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 21:21	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 21:21	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 22:27	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-4-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-4

LLI Sample # WW 6577216
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:50 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	130	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 10:28	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-5-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-5

LLI Sample # WW 6577217
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:10 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
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FSL05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 04:24	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 04:24	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 21:43	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 21:43	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 22:50	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-5-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-5

LLI Sample # WW 6577218
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:10 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	95	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 10:50	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-6-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-6

LLI Sample # WW 6577219
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 11:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 04:52	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 04:52	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 22:05	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 22:05	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 23:12	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-6-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-6

LLI Sample # WW 6577220
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 11:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	54	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 11:13	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-9-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-9

LLI Sample # WW 6577221
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:15 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 05:20	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 05:20	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 22:27	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 22:27	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 23:35	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-9-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-9

LLI Sample # WW 6577222
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 12:15 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 11:36	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-10-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-10

LLI Sample # WW 6577223
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	1	2
10943	Ethylbenzene	100-41-4	36	1	2
10943	Toluene	108-88-3	N.D.	1	2
10943	Xylene (Total)	1330-20-7	16	1	2
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,100	250	5
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	260	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 05:47	Kelly E Keller	2
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 05:47	Kelly E Keller	2
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/20/2012 12:00	Laura M Krieger	5
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/20/2012 12:00	Laura M Krieger	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/20/2012 23:57	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-10-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-10

LLI Sample # WW 6577224
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:00 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	440	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 11:59	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-11-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-11

LLI Sample # WW 6577225
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:30 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 06:15	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 06:15	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 23:11	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 23:11	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/21/2012 00:20	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-11-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-11

LLI Sample # WW 6577226
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 10:30 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	160	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 12:21	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: **MW-12-W-120312 Grab Water**
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-12

LLI Sample # WW 6577227
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 11:30 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSL12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	10	0.5	1
10943	Ethylbenzene	100-41-4	19	0.5	1
10943	Toluene	108-88-3	1	0.5	1
10943	Xylene (Total)	1330-20-7	38	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	3,000	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	310	50	1
	The reverse surrogate, capric acid, is present at <1%.				

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	P120764AA	03/17/2012 06:43	Kelly E Keller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P120764AA	03/17/2012 06:43	Kelly E Keller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12076A20A	03/19/2012 23:33	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	12076A20A	03/19/2012 23:33	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770004A	03/21/2012 00:43	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770004A	03/19/2012 09:20	Catherine R Wiker	1

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Analysis Report

Sample Description: MW-12-W-120312 Grab Water
Facility# 307233 Job# 385876 GRD
2259 First St-Livermore T0600196622 MW-12

LLI Sample # WW 6577228
LLI Group # 1295102
Account # 10904

Project Name: 307233

Collected: 03/12/2012 11:30 by ML

Submitted: 03/14/2012 09:25
Reported: 03/26/2012 18:53

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

FSQ12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	1,100	50	1

General Sample Comments

State of California Lab Certification No. 2501

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	120770005A	03/20/2012 12:44	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	120770005A	03/19/2012 09:20	Catherine R Wiker	1

Quality Control Summary

Client Name: Chevron Group Number: 1295102
Reported: 03/26/12 at 06:53 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: P120764AA	Sample number(s): 6577208-6577209,6577211,6577213,6577215,6577217,6577219,6577221,6577223,6577225,6577227							
Benzene	N.D.	0.5	ug/l	96		77-121		
Ethylbenzene	N.D.	0.5	ug/l	95		79-120		
Toluene	N.D.	0.5	ug/l	93		79-120		
Xylene (Total)	N.D.	0.5	ug/l	95		77-120		
Batch number: 12075A53A	Sample number(s): 6577208-6577209							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 12076A20A	Sample number(s): 6577215,6577217,6577219,6577221,6577223,6577225,6577227							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Batch number: 12082A53A	Sample number(s): 6577211,6577213							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	100	91	75-135	10	30
Batch number: 120770004A	Sample number(s): 6577209,6577211,6577213,6577215,6577217,6577219,6577221,6577223,6577225,6577227							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	69	69	50-118	0	20
Batch number: 120770005A	Sample number(s): 6577210,6577212,6577214,6577216,6577218,6577220,6577222,6577224,6577226,6577228							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	88	94	50-118	7	20

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P120764AA	Sample number(s): 6577208-6577209,6577211,6577213,6577215,6577217,6577219,6577221,6577223,6577225,6577227 UNSPK: P576365								
Benzene	99	106	72-134	6	30				
Ethylbenzene	98	104	71-134	7	30				
Toluene	98	107	80-125	9	30				
Xylene (Total)	99	106	79-125	7	30				

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

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

Quality Control Summary

Client Name: Chevron Group Number: 1295102
Reported: 03/26/12 at 06:53 PM

Surrogate Quality Control

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

Analysis Name: UST VOCs by 8260B - Water
Batch number: P120764AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6577208	103	94	96	100
6577209	103	98	96	100
6577211	102	99	96	100
6577213	103	94	96	99
6577215	102	98	97	102
6577217	106	98	97	101
6577219	105	99	95	100
6577221	106	98	95	100
6577223	105	98	96	104
6577225	105	96	96	101
6577227	102	99	96	101
Blank	103	96	96	100
LCS	102	98	97	102
MS	102	98	96	100
MSD	103	97	98	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 12075A53A

	Trifluorotoluene-F
6577208	82
6577209	82
Blank	83
LCS	98
LCSD	98
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 12076A20A

	Trifluorotoluene-F
6577215	90
6577217	90
6577219	88
6577221	92
6577223	101
6577225	90
6577227	162*
Blank	88
LCS	112
LCSD	113
Limits:	63-135

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

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

Quality Control Summary

Client Name: Chevron
Group Number: 1295102
Reported: 03/26/12 at 06:53 PM

Surrogate Quality Control

Batch number: 12082A53A

	Trifluorotoluene-F
6577211	82
6577213	84
Blank	82
LCS	98
LCSD	95
Limits:	63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel
Batch number: 120770004A

	Orthoterphenyl
6577209	85
6577211	91
6577213	81
6577215	88
6577217	77
6577219	82
6577221	61
6577223	88
6577225	74
6577227	83
Blank	88
LCS	75
LCSD	75
Limits:	50-154

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel
Batch number: 120770005A

	Orthoterphenyl
6577210	98
6577212	102
6577214	104
6577216	110
6577218	97
6577220	104
6577222	83
6577224	106
6577226	95
6577228	106
Blank	101
LCS	90
LCSD	90
Limits:	50-154

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

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

5~~00~~ AMBER
~~0~~31212-~~0~~7

For Lancaster Laboratories use only
Acct. #: 10904 Sample # 6577208-28 Group #: 020405

C# 1295102

Please forward the lab results directly to the Lead Consultant and cc: G-R.

Facility #: SS#307233-OML G-R#385876 Global ID#T0600196622
Site Address: 2259 FIRST STREET, LIVERMORE, CA
Chevron PM: EF Lead Consultant: CRAHK Hoey
Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)
Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
Sampler: MIKE LOMBARD

Matrix: ☐ Potable ☐ NPDES

Analyses Requested (Preservation Codes: H, H)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil ☐ Air	Total Number of Containers	BTEX + [redacted] 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	TPH-DRO w/sgc COLUMN
QA	3-12-12		X			X		2	X	X						
MW-1	↓	1300	X			X		8	X	X	X					X
MW-2		0910	X			X		8	X	X	X					X
MW-3		1200	X			X		8	X	X	X					X
MW-4		1250	X			X		8	X	X	X					X
MW-5		1010	X			X		8	X	X	X					X
MW-6		1100	X			X		8	X	X	X					X
MW-9		1215	X			X		8	X	X	X					X
MW-10		1000	X			X		8	X	X	X					X
MW-11		1030	X			X		8	X	X	X					X
MW-12		1130	X			X		8	X	X	X					X

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Please report DRO w/sgc using 10 grams of silica and also report 1 gram shake results

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I - Full **EDF/EDD**
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3-12-12	1330	[signature]	3.12.12	1330
[signature]	3.12.12	1550	[signature]	12MAR12	1550
[signature]	3/13/12	1630	FE		
Relinquished by Commercial Carrier: UPS (FedEx) Other ______			[signature]	3-14-12	925

Temperature Upon Receipt 0.6-1.4 C°
Custody Seals Intact? (Yes) No

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

4804.01 (north) Rev. 10/12/06

eurofins | Lancaster Laboratories

Explanation of Symbols and Abbreviations

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

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

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

> greater than

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

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

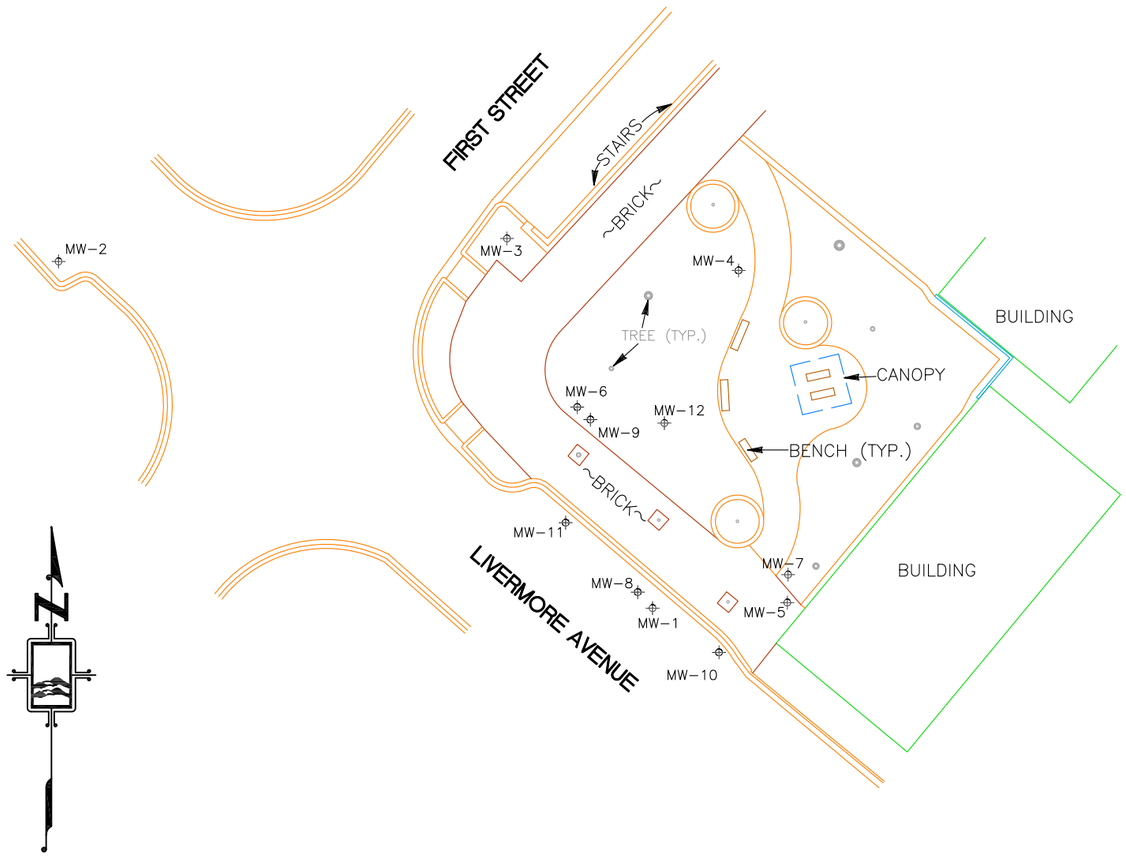
APPENDIX H

WELL SURVEY DATA

Monitoring Well Exhibit

Prepared For:

Conestoga-Rovers and Associates



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (PVC)	ELEV (BOX)
MW-1	2073232.0	6194731.9	37.6818687	-121.7680253	490.86	491.30
MW-2	2073325.7	6194571.5	37.6821198	-121.7685841	489.43	490.08
MW-3	2073331.9	6194692.6	37.6821414	-121.7681659	490.38	490.63
MW-4	2073323.2	6194755.2	37.6821199	-121.7679493	492.27	492.57
MW-5	2073233.5	6194768.3	37.6818741	-121.7678996	491.99	492.41
MW-6	2073286.3	6194711.6	37.6820170	-121.7680982	491.52	491.89
MW-7	2073241.1	6194768.5	37.6818949	-121.7678992	492.29	492.69
MW-8	2073236.4	6194727.9	37.6818804	-121.7680393	490.89	491.19
MW-9	2073282.9	6194715.2	37.6820078	-121.7680857	491.64	491.98
WELLS SURVEYED ON 2-28-12:						
MW-10	2073220.1	6194749.9	37.6818365	-121.7679627	491.15	491.52
MW-11	2073255.1	6194708.5	37.6819311	-121.7681075	490.59	490.83
MW-12	2073282.0	6194735.1	37.6820060	-121.7680166	493.72	494.01

BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

0 20 40 80 120

SCALE IN FEET

Former Texaco (Chevron Site 30-7233)
2259 First St.
Livermore
Alameda County
California

Morrow Surveying
LAND SURVEYORS

1255 Starboard Drive
West Sacramento
California 95691
(916) 372-8124
mark@morrowsurveying.com

Date: 4-21-10
Scale: 1"=40'
Sheet 1 of 1
Revised: 2-29-12
Field Book: MW-51,54
Dwg. No. 0857-156 MAM

APPENDIX I

EVALUATION OF GYPSUM HEALTH EFFECTS

CONESTOGA-ROVERS & ASSOCIATES

5551 Corporate Boulevard, Suite 200
Baton Rouge, Louisiana 70808
Telephone: (225) 292-9007 Fax: (225) 952-2978
www.CRAworld.com

MEMORANDUM

TO:	Jerry Wickham, Alameda County Health Care Services Agency	REF. NO.:	312264-2012.3-R10
FROM:	Christopher Fetters, CRA	DATE:	April 30, 2012
CC:	Kiersten Hoey, Joseph Kraska, File		
RE:	**Evaluation of Gypsum Health Effects**		

Conestoga-Rovers & Associates (CRA) is submitting this *Evaluation of Gypsum Health Effects Memo* on behalf of Chevron Environmental Management Company (Chevron) for the site referenced in the *Work Plan for Feasibility Testing and Additional Assessment* as requested by Mr. Jerry Wickham of the Alameda County Environmental Health Department.

BACKGROUND

CRA proposes an application of agricultural gypsum over the landscaped area in the immediate vicinity and upgradient of MW-7. The depth to water (DTW) and precipitation amounts indicate that the water table is responsive to precipitation and that land application of gypsum has a likelihood of success. It is expected that gypsum applied to the ground surface will dissolve during the irrigation and the sulfate-laden water will infiltrate through the vadose zone to the water table. Such surface recharge to groundwater has been reported in natural settings [1] [2] as well as demonstrated to be effective in remedial setting [3]. The quantity of water used for irrigation is meant to simulate the maximum precipitation intensity observed at the site (that also resulted in a response in depth to water change). The recommended typical application rate for agriculture gypsum is 60 pounds per 200 square feet (ft^2). The minimum land application area would be approximately 1,000 ft^2 around well MW-7, which, according to the calculation, would require approximately 2,100 gallons of irrigation water. However, if the City of Livermore requires the entire grass area of the park to be evenly treated for even grass growth, the maximum land application area would be approximately 5,500 ft^2, which would require approximately 12,000 gallons of irrigation water. The irrigation water will be applied over a suitable time to minimize surface ponding and run-off.

POTENTIAL HEALTH AND NUISANCE IMPACT OF GYPSUM

Gypsum (calcium sulfate dihydrate) is not classified as hazardous by the Occupational Health and Safety Administration (OSHA) Hazard Communication Standard. Gypsum exposure routes are generally inhalation and dermal contact. Acute inhalation exposure to airborne dust concentrations may result in coughing; dyspnea; wheezing; general irritation of the nose, throat, and upper respiratory tract; and impaired pulmonary function. Chronic inhalation exposure may result in lung disease. Continued and

prolonged dermal contact may result in dry skin, itching, rash or redness, and possibly dermatitis. Direct eye contact will cause mild mechanical irritation and ingestion of gypsum has no known adverse effects. These modes of reception will be eliminated from the site by first irrigating the ground, applying the gypsum granules, then immediately irrigating the ground for a second time. This will allow the gypsum to quickly dissolve and little to no dust will be created. Additionally, the area of the park where gypsum is applied will be inaccessible for patrons during applications.

POTENTIAL IMPACT OF GYPSUM ON ESTABLISHED VEGETATION

Gypsum is a moderately soluble source of calcium and sulfur, two essential nutrients for healthy plant growth. Gypsum amendment also improves the physical and chemical properties of soils, and is commonly used in the reclamation of sodic soils. Turf grass management often needs gypsum to ameliorate the effects of acidity that can accumulate in the soil profile due to nitrogen fertilizer. Surface application of gypsum can provide calcium and sulfur for grasses and ameliorate aluminum toxicity experienced by the established grasses. Application rates are dependent on application method, time of application and plant type. Application rates on landscapes and grasses are generally higher due to the inability to till the gypsum into the soil and the desire to avoid annual or multiple applications. Common gypsum application rates for landscape or turf grass systems can range from 4,000 to 14,000 pounds per acre. The proposed application rate is within the established range and should display no negative effects on the established vegetation.

CONCLUSION

Given the mode of application and the non-hazardous classification of gypsum, there is no apparent health concern for this remediation approach. The proposed rate of application is within the established range for landscape or turf grass systems. Coupled with the method of dissolving and irrigation application of the amendment, which allows for a steady and controllable dose of amendment to be applied, there is a minimal chance of vegetation damage.

CRA appreciates the opportunity to provide this information to Alameda County Health Care Services Agency. Should you have any questions or require additional information regarding this submittal, please contact CRA.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Christopher M. Fetters, PE

JEK/lcs/1
Encl.