Eric Hetrick
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6491
ehetrick@chevron.com

January 9, 2015

RECEIVED
By Alameda County Environmental Health at 2:58 pm, Jan 12, 2015

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

Re: Former Chevron Service Station 95607
5269 Crow Canyon Road
Castro Valley, CA
ACEH Case #RO 0350

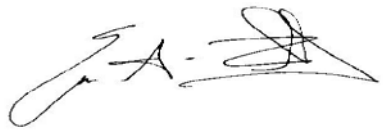
I have reviewed the attached Monthly Remedial Progress Report - November 2014.

The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who 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,



Eric Hetrick
Project Manager

Attachment: Monthly Remedial Progress Report - November 2014

CONESTOGA-ROVERS & ASSOCIATES

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

January 9, 2015 Reference No. 311950

Mr. Mark Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, California 94502

Re: Monthly Remedial Progress Report – November 2014
Former Chevron Station 95607
5269 Crow Canyon Road
Castro Valley, California
Fuel Leak Case RO0350

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA), on behalf of Chevron Environmental Management Company (Chevron), is providing this *Monthly Remedial Progress Report – November 2014* (Report), for the site referenced above (Figure 1). This report was prepared in accordance with Alameda County Environmental Health Services (ACEHS) Approval of the Remedial Action Plan, dated December 11, 2013. This report includes a summary of the dual-phase extraction (DPE) system operations conducted in the month of November 2014 and cumulatively (Tables 1 through 4).

DPE system compliance testing and sampling was performed on November 6 and November 21, 2014 in accordance with system operational permits. During the reporting period, approximately 204.5 pounds of total petroleum hydrocarbons as gasoline (TPHg) and 1.2 pounds of benzene were removed in vapor phase (Table 4), and approximately 1.3 pounds of TPHg and 0.2 pounds were removed in dissolved phase (Table 2). The unusually low soil vapor extraction (SVE) vapor mass removal is linked to the SVE influent vapor sample collected November 21. Historically, influent TPHg vapor concentrations range from 1,500 to 4,200 parts per million by volume (ppmv), but the November 21 sample was 1.3 ppmv. The laboratory report was reviewed and verified by Eurofins AirToxics Laboratory (Eurofins). Eurofins did not find discrepancies or errors. Due to this apparently anomalous reading, period volatile organic compound cumulative removal was calculated using field readings obtained by an organic vapor analyzer (OVA). During the reporting period, approximately 640.7 pounds of VOC were removed in vapor phase (Table 3). A summary of the DPE system operational performance for the month of November 2014 is presented below.

VAPOR-PHASE EXTRACTION DATA-NOVEMBER 2014

Soil Vapor Influent Flow Rate (avg scfm)	180 scfm
Soil Vapor Laboratory Influent Concentrations (TPHg ppmv)	1 ppmv
Soil Vapor Laboratory Influent Concentrations (Benzene ppmv)	0.0 ppmv
Soil Vapor Field Influent Concentrations (TPHg ppmv)*	1,210 ppmv*
Soil Vapor Mass Removal (lb TPHg/period)*	640.7 pounds*
Soil Vapor Mass Removal (lb Benzene/period)	1.2 pounds
Soil Vapor Extraction Period Operating Uptime (hours)	256 hours
Soil Vapor Treatment Destruction Efficiency (%)	76 percent

ppmv – parts per million by volume
* Based upon field OVA readings

DISSOLVED-PHASE EXTRACTION DATA-NOVEMBER 2014

Maximum Groundwater Extraction Rate (gpm)	2.5 gpm
Average Groundwater Extraction Rate (gpm)	1.2 gpm
Dissolved-Phase Mass Removal Rate (lb TPHg/period)	1.3 pounds
Dissolved-Phase Mass Removal Rate (lb Benzene/period)	0.2 pounds
Total Volume Groundwater Treated (gallons)	18,833 gallons
Groundwater Extraction Period Operating Uptime (hours)	256 hours

CONESTOGA-ROVERS & ASSOCIATES

January 9, 2015 Reference No. 311950

Please contact Darrell Smolko of CRA at (925) 334-8617 or Judy Gilbert of CRA at (510) 420-3314, if you have any questions or comments.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

PROFESSIONAL GEOLOGIST BRANDON S. WILKEN No. 7564 STATE OF CALIFORNIA

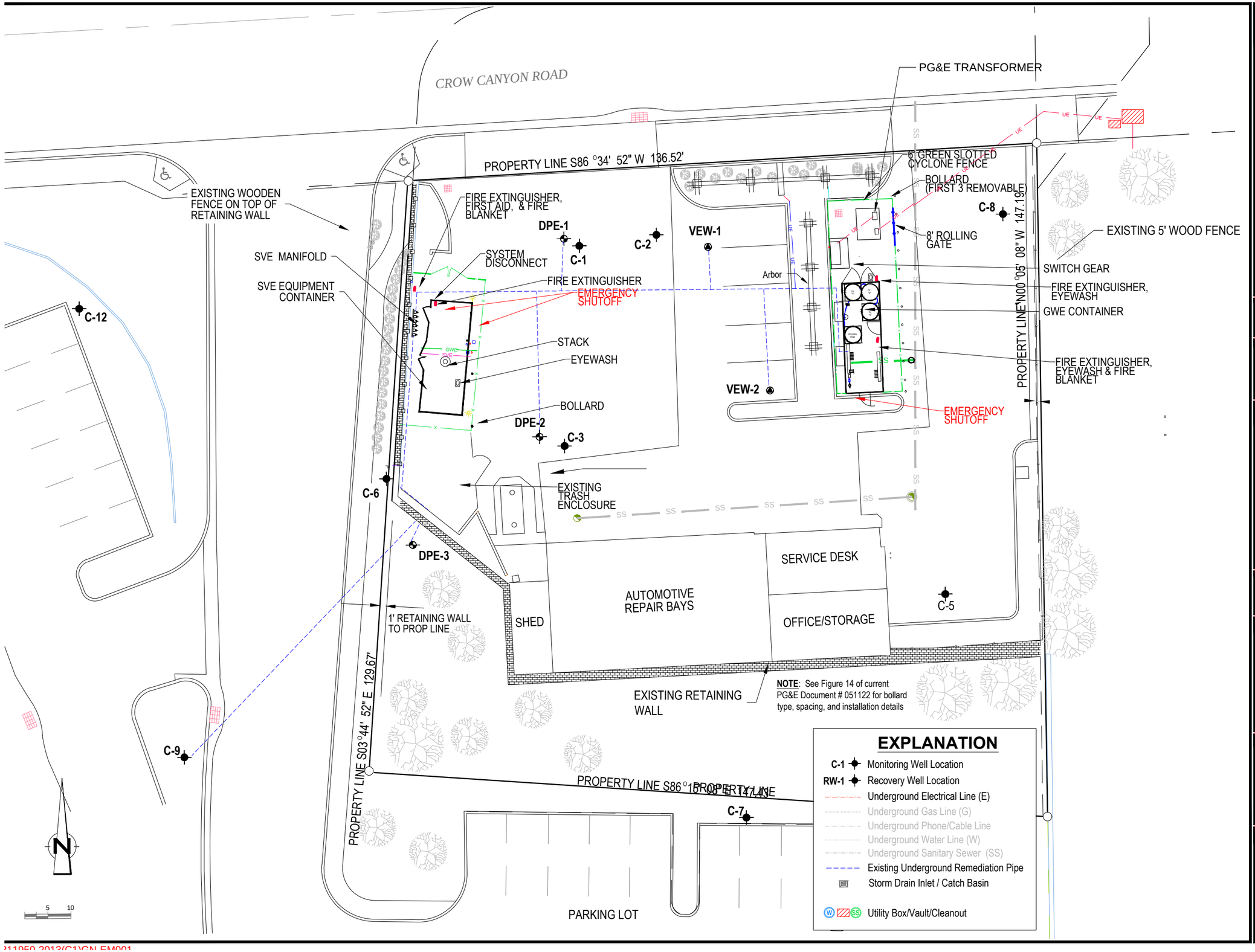
Darrell Smolko Brandon S. Wilken, PG 7564

Encl.
DS/mws/33

Figure 1	General Site Plan
Table 1	Groundwater Extraction & Treatment System Hydrocarbon Analytical Data
Table 2	Groundwater Extraction & Treatment System Operational Data & Hydrocarbon Mass Removal
Table 3	Soil Vapor Extraction Operational Data
Table 4	Soil Vapor Extraction Analytical Data & Mass Removal
Attachment A	Laboratory Analytical Reports

c.c.: Mr. Eric Hetrick, Chevron EMC *(electronic copy)*
Mr. Kevin Hinkley, Property Owner
Ms. Diane Riggs, Forest Creek Townhomes Association

FIGURE



211950.2013(C1)GN.EM001

CLIENT

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY

PROJECT

FORMER CHEVRON STATION #9-5607
5269 CROW CANYON ROAD
CASTRO VALLEY, CA

TITLE

GENERAL SITE PLAN

PROJECT #311950

DRAWING STATUS

N°	Revision	Date	By
1	RELOCATE GWE TRAILER	10/12/13	DK
1	ADD SVE-1 AND SVE-2	10/23/13	DK
2	RELOCATE GWE TRAILER	3/25/14	DS
3	AS-BUILT	10/10/14	DS

SCALE VERIFICATION
THIS BAR MEASURES 1" ON ORIGINAL.

CONESTOGA-ROVERS & ASSOCIATES
5900 HOLLIS STREET, SUITE A
EMERYVILLE CA 94608
PHONE: 510.420.0700
FAX: 510.420.9170
WWW.CRAWORLD.COM

Source Reference:

Designed By: DS	Date: 10/10/2014	Drawing N°: FIG 1
Drafted By: DS	Date: 10/10/2014	
Reviewed By: DK	Date: 10/23/2014	
Scale: 1:10		

TABLES

Table 1
Groundwater Extraction and Treatment System
Influent and Effluent Hydrocarbon Concentration Data
Former Chevron Station # 9-5607
5269 Crow Canyon Road, Castro Valley, California

	Influent						**Midfluent 1**						**Midfluent 2**						**Effluent**					
Sample Date (mm/dd/yy)	**TPHg Conc. (µg/L)**	**Benzene Conc. (µg/L)**	**Toluene Conc. (µg/L)**	**Ethylbenzene Conc. (µg/L)**	**Xylenes Conc. (µg/L)**	**MTBE Conc. (µg/L)**	**TPHg Conc. (µg/L)**	**Benzene Conc. (µg/L)**	**Toluene Conc. (µg/L)**	**Ethylbenzene Conc. (µg/L)**	**Xylenes Conc. (µg/L)**	**MTBE Conc. (µg/L)**	**TPHg Conc. (µg/L)**	**Benzene Conc. (µg/L)**	**Toluene Conc. (µg/L)**	**Ethylbenzene Conc. (µg/L)**	**Xylenes Conc. (µg/L)**	**MTBE Conc. (µg/L)**	**TPHg Conc. (µg/L)**	**Benzene Conc. (µg/L)**	**Toluene Conc. (µg/L)**	**Ethylbenzene Conc. (µg/L)**	**Xylenes Conc. (µg/L)**	**MTBE Conc. (µg/L)**
09/12/14	**6,000**	**1,800**	**19**	**120**	**94**	**4**	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5
10/13/14	**7,500**	**1,600**	**37**	**76**	**630**	**4**	<50	2	<0.5	<0.5	<0.5	<0.5	NM	<0.5	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	<0.5
11/06/14	**8,000**	**990**	**140**	**100**	**590**	<10	<50	2	<0.5	<0.5	<0.5	<0.5	NM	NM	NM	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<0.5

Notes and Abbreviations:

mm/dd/yy = month/day/year
Conc. = concentration
TPHg = total petroleum hydrocarbons quantified as gasoline
MTBE = methyl tertiary butyl ether
µg/L = micrograms per liter
<X.X = not detected at or below the detection limit indicated
a = pH measured in the field
NS = Midfluent 3 not sampled due to bypassing one of the carbon vessels for a carbon changeout
TBD = Sample taken during this time and are awaiting results

TPHg analyzed by EPA Method 8015M.
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B.
MTBE analyzed by EPA Method 8260B.

Table 2
Groundwater Extraction and Treatment System
Operational Data and Dissolved Phase Hydrocarbons Mass Removal Data
Former Chevron Station # 9-5607
5269 Crow Canyon Road, Castro Valley, California

Date (mm/dd/yy)	Well IDs	Hour Meter[1] (hours)	Totalizer Reading (gallons)	Period Volume (gallons)	Period Operational Flow Rate (gpm)	Cumulative Volume (gallons)	TPHg			Benzene			MTBE		
							TPHg Concentration (µg/L)	Period Removal[c] (pounds)	Cumulative Removal (pounds)	Benzene Concentration (µg/L)	Period Removal[c] (pounds)	Cumulative Removal (pounds)	MTBE Concentration (µg/L)	Period Removal[c] (pounds)	Cumulative Removal (pounds)
9/12/14 9:00	DPE-1 - DPE-3, C-9	4008.5	330,400	0	0.0	0	---	---	---	---	---	---	---	---	---
9/12/14 14:00	DPE-1 - DPE-3, C-9	4013.5	331,500	1,100	3.7	1,100	6,000	0.055	0.055	1,800	0.017	0.017	4	0.000	0.000
9/29/14 14:00	DPE-1 - DPE-3, C-9	4019.0	332,000	500	1.5	1,600	---	0.025	0.08	---	0.008	0.024	---	0.000	0.000
10/6/14 11:00	DPE-1 - DPE-3, C-9	4024.0	332,700	700	2.3	2,300	---	0.035	0.12	---	0.011	0.035	---	0.000	0.000
10/13/14 14:00	DPE-1 - DPE-3, C-9	4,130.0	341,085	8,385	1.3	10,685	7,500	0.525	0.64	1,600	0.112	0.146	4	0.000	0.000
10/20/14 11:30	DPE-1 - DPE-3, C-9	4,296.0	348,600	7,515	0.8	18,200	---	0.470	1.11	---	0.100	0.247	---	0.000	0.001
10/27/14 11:00	DPE-1 - DPE-3, C-9	4,413.0	354,200	5,600	0.8	23,800	---	0.350	1.46	---	0.075	0.322	---	0.000	0.001
11/6/14 13:15	DPE-1 - DPE-3, C-9	4,480.0	364,390	10,190	2.5	33,990	8,000	0.680	2.14	990	0.084	0.406	10	0.001	0.002
11/21/14 13:50	DPE-1 - DPE-3, C-9	4,668.6	373,033	8,643	0.8	42,633	---	0.577	2.72	---	0.071	0.477	---	0.001	0.002
Agency Limits															
					Total Extracted Volume (gal):	**42,633**	**Pounds Removed:**	**1.26**	**2.72**	**Pounds Removed:**	**0.16**	**0.48**	**Pounds Removed:**	**0.00**	**0.00**
					Average Operational Flow Rate (gpm)[3]:	**1.08**	**Gallons Removed[4]**	**0.21**	**0.45**	**Gallons Removed[4]**	**0.02**	**0.06**	**Gallons Removed[c]**	**0.00**	**0.00**

Reporting Period: 10/27/14 - 11/21/14

Number of Days during Reporting Period	25	days
Gallons of Extracted Ground Water	18,833	gal
Average Flow Rate	1.23	gpm
Pounds of TPHg Removed	1.257	lbs
TPHg Removal Rate	0.050	lbs/day
Pounds of Benzene Removed	0.156	lbs
Benzene Removal Rate	0.006	lbs/day
Pounds of MTBE Removed	0.002	lbs
MTBE Removal Rate	0.000	lbs/day

Cumulative Results Since Start-up:

Number Days since Startup	70	days
Cumulative Total Gallons Extracted	42,633	gal
Average Flow Rate[3]	1.08	gpm
Cumulative Pounds of TPHg Removed	2.718	lbs
TPHg Removal Rate	0.039	lbs/day
Cumulative Pounds of Benzene Removed	0.477	lbs
Benzene Removal Rate	0.007	lbs/day
Cumulative Pounds of MTBE Removed	0.002	lbs
MTBE Removal Rate	0.000	lbs/day

Notes:

a = Estimated groundwater system run time, hour meter malfunction
b = Hour meter replaced; groundwater system off, hour meter being used to measure run time for soil vapor extraction system
c = Goundwater system turned on using new hour meter
d = OWS limit is based on 10 gpm operating continuously. No more than 5.26 million gallons of water to be processed in any 12 month period
PUC permit gives average of 20 gpm

Formulas and Assumptions:

1. Hour meter readings taken at the end of the site visit
2. Mass Removed During the Period = Volume of Water Extracted (gallons) x Concentration (µg/L) x ($g/10^6$ µg) x (lb/453.6g) x (3.785 L/gal)
3. When concentration of individual parameters were not detected, the concentration was assumed to be half the detection limit for calculation
Average Flow Rate = (Volume of Extracted Water (gal) / Number of Operational Days) * (60 minutes/hour) * (24 hours/day)
4. Gallons Removed = (Mass (lb) / Density (g/cc)) x 453.6 (g/lb) x (L/1000 cc) x (gal/3.785 L)
Density: = 0.73 g/cc TPHg
= 0.88 g/cc Benzene
= 0.74 g/cc MTBE

Abbreviations:

TPHg = total petroleum hydrocarbons as gasoline
MTBE = methyl tertiary butyl ether
L = liter
gal = gallon
gpm = gallon per minute
µg/L = micrograms per liter
g = grams
cc = cubic centimeter
NM = not measured
lb = pounds

Table 3: Dual Phase Extraction System
Operational Data
Former Chevron Station # 9-5607
5269 Crow Canyon Road, Castro Valley, California

Date (mm/dd/yy hh:mm)	Operating Wells (open)	Operating Time (hours)	Hour Meter (hours)	System Uptime (%)	Period Operation (hours)	Blower Vacuum (inHg)	INF-1 Vacuum (inHg)	INF-1 Vacuum (inH_2O)	INF-1 Temperature (^oF)	INF-1 Measured Flow (acfm)	INF-1 Calculated Flow (scfm)	INF-2 Pressure[1] (inH_2O)	INF-2 Temperature (^oF)	INF-2 Measured Flow[1] (acfm)	INF-2 Calculated Flow (scfm)	Effluent Flow Rate (scfm)	Dilution Air (% open)	Pre-Oxidizer Temp (^oF)	Post-Oxidizer Temp (^oF)	Influent 1 OVA (ppmv)	Influent 1 LEL (%LEL)	INF-2 FID (ppmv)	INF-2 OVA (ppmv)	Effluent PID (ppmv)	Mass Removal based on OVA (ppd)	Cummulative Removal based on OVA (pounds)	Destruction Efficiency (%)
9/12/14 14:00	C9, DPE-1 - DPE3, VE-1, VE-2	0.00	4013.5	0%	0.0	NM	3.00	41	NM	NM	NM	10.0	155	294	259	259	20	747	NM	NM	NM	NM	8000	20.0	663.8	0.0	99.8%
9/29/14 14:00	C9, DPE-1 - DPE3, VE-1, VE-2	5.50	4019.0	1.3%	5.5	15.0	2.81	38	93	165	143	11	189	255	213	213	20	880	NM	NM	NM	10,000	NM	0.0	NM	NM	100.0%
10/6/14 11:00	C9, DPE-1 - DPE3, VE-1, VE-2	5.00	4024	3.0%	5.0	15.0	2.81	38	83	144	127	10	176	255	217	217	25	899	NM	NM	NM	1800	560	0.2	39.0	8.1	100.0%
10/13/14 14:00	C9, DPE-1 - DPE-3	106.00	4130	62.0%	106.0	14.5	2.35	31.7	68	191	176	10.9	180	268	227	227	0	750	883	NM	NM	NM	1100	5.0	80.1	353.9	99.5%
10/20/14 11:30	C9, DPE-1 - DPE-3	166.00	4296	100.3%	166.0	15.0	3.18	43	79	140	123	10.5	171	255	219	218.9	0	750	927	NM	NM	1,300	650	0.3	45.6	315.7	100.0%
10/27/14 11:00	C9, DPE-1, DPE-2	117.00	4413	69.9%	117.0	15.0	4.1	56	61	161	141	11.6	160	270	236	236.5	0	750	897	2,350	30%	1,325	700	0.4	53.1	258.9	99.9%
11/6/14 13:15	C9, DPE-3, DPE-2	67.00	4480	27.7%	67.0	20.0	5.0	68	61	146	123	10.7	61	146	152	123.2	0	701	900	NM	10%	NM	1250	0.0	60.9	170.0	100.0%
11/21/14 13:50	C9, DPE-3, DPE-2	188.60	4669	52.3%	188.6	20.0	5.3	72	68	132	109	11.1	174	176	151	108.6	0	698	809	1,210	NM	NM	558	0.4	27.0	211.8	99.9%
Reporting Period			**256**	**42.4%**											**180**										**47**	**640.7**	**100%**
Permit Conditions:											**<300**				**<300**			**>600**									**>98.5%**

Abbreviations and Notes:

mm/dd/yy = month/day/year
hh:mm = hour : minute
inHg = inches of mercury
inH_2O = inches of water
^oF = degrees Fahrenheit
acfm = actual cubic feet per minute
scfm = standard cubic feet per minute (flow in scfm = flow in acfm * [operating pressure{abs} / standard pressure {abs}] * [standard temperature {abs} / operating temperature {abs}])
% = percentage
INF-1 = pre-dilution system influent
INF-2 = post-dilution system influent
NM = not measured
LEL = Lower Explosive Limit
ppmv = parts per million by volume
a = hour meter non-functional due to improper wiring; hour meter values estimated based upon continuous runtime
PID = photo-ionization detector
FID = flame ionization detector
OVA = organic vapor analyzer
ppd = pounds per day
1. = INF-2 flow read from chart recorder. INF-2 pressure used to convert acfm to scfm.
2. = Changed hour meter
3. = water in pipe; unable to measure accurate concentration/ LEL readings

Compliance:

BAAQMD Requirements:
Flow Rate < 300 scfm
Oxidizer Temperature > 600 degrees Fahrenheit in electric catalytic mode and > 1400 degrees in thermal catalytic mode
Benzene Emission Limit < 0.017ppd
Destruction Efficiency (measured as hexane)

98.50%	VOC >2,000 ppmv
97.00%	VOC >200 and <2,000 ppmv
90.00%	VOC < 200 ppmv

Note: If outlet VOC < 10 ppmv, destruction efficiency requirement is waived

Table 4: Dual Phase Extraction System
Analytical Data
Former Chevron Station # 9-5607
5269 Crow Canyon Road, Castro Valley, California

Date (mm/dd/yy hh:mm)	Concentrations[1]								TPHg			Benzene			MTBE			VOC		
	INF-2					Effluent														
	Operating Wells	TPHg (ppmv)	Benzene (ppmv)	MTBE (ppmv)	VOC (ppmv)	TPHg (ppmv)	Benzene (ppmv)	MTBE (ppmv)	VOC (ppmv)	Removal Rate[2, 6] (ppd)	Cumulative Removed[7] (pounds)	Emission Rate[2, 6] (ppd)	Removal Rate[3, 6] (ppd)	Cumulative Removed[7] (pounds)	Emission Rate[3, 6] (ppd)	Removal Rate[4, 6] (ppd)	Cumulative Removed[7] (pounds)	Emission Rate[4, 6] (ppd)	Removal Rate[5, 6] (ppd)	Emission Rate[5, 6] (ppd)	Destruction Efficiency (%)
9/12/14 14:00	C9, DPE-1 - DPE3, VE-1, VE-2	4,200	44	38	4,282	46	0.39	0.19	46.58	348.5	0.0	3.82	3.3	0.0	0.03	3.2	0.0	0.02	355.3	3.95	98.9%
9/29/14 14:00	C9, DPE-1 - DPE3, VE-1, VE-2	--	--	--	--	--	--	--	--	287.1	65.8	3.14	2.7	0.6	0.03	2.7	0.6	0.01	292.7	3.26	98.9%
10/6/14 11:00	C9, DPE-1 - DPE3, VE-1, VE-2	--	--	--	--	--	--	--	--	292.3	126.7	3.20	2.8	1.2	0.03	2.7	1.2	0.01	298.0	3.32	98.9%
10/13/14 11:00	C9, DPE-1 - DPE-3	1,500	10	< 20	1,530	<5	< 0.5	< 0.5	< 6.0	109.3	609.2	0.36	0.7	4.1	0.04	1.5	7.8	0.04	111.4	0.45	99.6%
10/20/14 11:30	C9, DPE-1 - DPE-3	--	--	--	--	--	--	--	--	105.3	1337.8	0.35	0.6	8.5	0.04	1.4	17.7	0.04	107.4	0.43	99.6%
10/27/14 11:00	C9, DPE-1, DPE2	--	--	--	--	--	--	--	--	113.8	1892.6	0.38	0.7	11.9	0.04	1.6	25.3	0.04	116.1	0.47	99.6%
11/6/14 13:15	C9, DPE-2, DPE3	--	--	--	--	--	--	--	--	73.1	2096.6	0.20	0.4	13.1	0.02	1.0	28.0	0.02	74.5	0.24	99.6%
11/21/14 13:50	C9, DPE-2, DPE-3	1	0.01	0.01	1.3	0.31	0.0020	< 0.002	0.31	0.1	2097.1	0.01	0.0	13.1	0.00	0.0	28.1	0.00	0.1	0.01	76.2%
Permit conditions														<0.017 ppd						>98.5% for >2,000 ppm inlet >97% for >200-<2,000 ppm inlet >90% for <200 ppm inlet	
									Period Pounds Removed[10]:	**TPHg =**	**204.5**		**Benzene =**	**1.2**		**MTBE =**	**2.8**			
									Total Pounds Removed:	**TPHg =**	**2,097.1**		**Benzene =**	**13.1**		**MTBE =**	**28.1**			

Notes:

1. TPHg, Benzene, and MTBE analyzed by EPA Method 8015/8020. Vapor samples were collected in 1-liter tedlar bags unless otherwise noted.
2. Molecular weight of TPHg assumed to be 86 lb/lb-mole as hexane.
3. Molecular weight of Benzene assumed to be 78 lb/lb-mole.
4. Molecular weight of MTBE assumed to be 88 lb/lb-mole.
5. Molecular weight of VOCs assumed to be 86 lb/lb-mole as hexane.
6. Removal/Emission Rate (ppd) = C (ppmv) x Q (scfm) x (1lb-mole/386ft^{-3}) x MW (lb/lb-mole) x 60 min/hr x 24 hr/day x 10^{-6}
   C = concentration = concentration
   Q = flow = flow
   MW = molecular weig = molecular weight
7. Cumulative TPHg / Benzene / MTBE removed = Previous Total + (Average of Previous and Current Removal Rates * Operation Interval)
8. Inffluent not measured due to water in vapor stream. Individual well samples were collected at a lower vacuum at this time.
9. Destruction efficiency requirements not met, agency notified. Agency granted approval to restart system
10. Period from October 27, 2014 - November 21, 2014

BAAQMD Requirements:

Flow Rate < 300 scfm
Oxidizer Temperature > 600 deg Fahrenheit in electric catalytic mode and > 1400 degrees in thermal catalytic mode
Benzene Emission Limit < 0.017 ppd
Destruction efficiency (measured as hexane)
98.50% VOC >2,000 ppmv
97.00% VOC >200 and <2,000 ppmv
90.00% VOC < 200 ppmv
Note: If outlet VOC < 10 ppmv, destruction efficiency requirement is waived

Abbreviations:

mm/dd/yy = month/day/year
hh:mm = hours : minutes
TPHg = total petroluem hydrocarbons as gasoline
MTBE = methyl tertiary butyl ether
VOC = volatile organic compounds
ppmv = parts per million by volume
ppd = pounds per day
NA = not applicable
NM = not measured
lb = pounds
ft^3 = cubic feet
scfm = standard cubic feet per minute

INF-1 = pre-dilution system influent
INF-2 = post-dilution system influent
TBD = Sample taken during this time and are awaiting results

ATTACHMENT A

LABORATORY ANALYTICAL REPORTS

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12/10/2014
Ms. Judy Gilbert
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: Castro Valley
Project #: 311950 2014.7 94.09
Workorder #: 1411371

Dear Ms. Judy Gilbert

The following report includes the data for the above referenced project for sample(s) received on 11/22/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kyle Vagadori

Project Manager

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WORK ORDER #: 1411371

Work Order Summary

CLIENT:	Ms. Judy Gilbert Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	**BILL TO:**	Accounts Payable Chevron U.S.A. Inc. 6001 Bollinger Canyon Road L4310 San Ramon, CA 94583
PHONE:	510-420-3314	**P.O. #**	NWENV00956070
FAX:	510-420-9170	**PROJECT #**	311950 2014.7 94.09 Castro Valley
DATE RECEIVED:	11/22/2014	**CONTACT:**	Kyle Vagadori
DATE COMPLETED:	12/10/2014		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EFF	Modified TO-3	Tedlar Bag	Tedlar Bag
02A	INF	Modified TO-3	Tedlar Bag	Tedlar Bag
03A	Lab Blank	Modified TO-3	NA	NA
04A	LCS	Modified TO-3	NA	NA
04AA	LCSD	Modified TO-3	NA	NA
04B	LCS	Modified TO-3	NA	NA
04BB	LCSD	Modified TO-3	NA	NA

CERTIFIED BY: Heidi Mayo DATE: 12/10/14

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-3
Conestoga-Rovers Associates (CRA)
Workorder# 1411371

Two Client Tedlar Bag samples were received on November 22, 2014. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with photo ionization and flame ionization detection. The TPH results are calculated using the response of Gasoline. A molecular weight of 100 is used to convert the TPH ppmv result to ug/L. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-3***	***ATL Modifications***
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch </= 20 samples.
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation DL = A+3.3S, where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Samples EFF and INF were transferred from Tedlar bags into summa canisters to extend the hold time from 3 days to 14 days. Canister pressurization resulted in a dilution factor which was applied to all analytical results.

Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
MODIFIED EPA METHOD TO-3 GC/PID/FID

Client Sample ID: EFF

Lab ID#: 1411371-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0063	0.0020	0.0065
Toluene	0.0020	0.0075	0.0040	0.015
Ethyl Benzene	0.0020	0.0086	0.0024	0.010
Total Xylenes	0.0020	0.0086	0.0084	0.036
TPH (Gasoline Range)	0.050	0.20	0.31	1.3

Client Sample ID: INF

Lab ID#: 1411371-02A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0062	0.013	0.042
Toluene	0.0020	0.0073	0.0052	0.020
Ethyl Benzene	0.0020	0.0085	0.0042	0.018
Total Xylenes	0.0020	0.0085	0.010	0.044
Methyl tert-butyl ether	0.0020	0.0070	0.0088	0.032
TPH (Gasoline Range)	0.049	0.20	1.3	5.3

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Client Sample ID: EFF

Lab ID#: 1411371-01A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120212**	**Date of Collection:**	**11/21/14 2:10:00 AM**
Dil. Factor:	**1.98**	**Date of Analysis:**	**12/2/14 04:58 PM**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0063	0.0020	0.0065
Toluene	0.0020	0.0075	0.0040	0.015
Ethyl Benzene	0.0020	0.0086	0.0024	0.010
Total Xylenes	0.0020	0.0086	0.0084	0.036
Methyl tert-butyl ether	0.0020	0.0071	Not Detected	Not Detected
TPH (Gasoline Range)	0.050	0.20	0.31	1.3

Container Type: Client Tedlar Bag

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	93	75-150
Fluorobenzene (PID)	101	75-125

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Client Sample ID: INF

Lab ID#: 1411371-02A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120214**	**Date of Collection: 11/21/14 2:00:00 AM**	
Dil. Factor:	**1.95**	**Date of Analysis: 12/2/14 06:30 PM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0062	0.013	0.042
Toluene	0.0020	0.0073	0.0052	0.020
Ethyl Benzene	0.0020	0.0085	0.0042	0.018
Total Xylenes	0.0020	0.0085	0.010	0.044
Methyl tert-butyl ether	0.0020	0.0070	0.0088	0.032
TPH (Gasoline Range)	0.049	0.20	1.3	5.3

Container Type: Client Tedlar Bag

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	96	75-150
Fluorobenzene (PID)	102	75-125

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Client Sample ID: Lab Blank

Lab ID#: 1411371-03A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120205**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/14 10:57 AM**	

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0010	0.0032	Not Detected	Not Detected
Toluene	0.0010	0.0038	Not Detected	Not Detected
Ethyl Benzene	0.0010	0.0043	Not Detected	Not Detected
Total Xylenes	0.0010	0.0043	Not Detected	Not Detected
Methyl tert-butyl ether	0.0010	0.0036	Not Detected	Not Detected
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	95	75-150
Fluorobenzene (PID)	102	75-125

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Client Sample ID: LCS

Lab ID#: 1411371-04A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120204b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/14 10:00 AM**	

Compound	%Recovery	Method Limits
Benzene	89	75-125
Toluene	92	75-125
Ethyl Benzene	94	75-125
Total Xylenes	95	75-125
Methyl tert-butyl ether	94	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (PID)	119	75-125

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Client Sample ID: LCSD

Lab ID#: 1411371-04AA

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120218b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/14 09:23 PM**	

Compound	%Recovery	Method Limits
Benzene	86	75-125
Toluene	91	75-125
Ethyl Benzene	96	75-125
Total Xylenes	103	75-125
Methyl tert-butyl ether	90	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (PID)	108	75-125

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Client Sample ID: LCS

Lab ID#: 1411371-04B

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/14 09:14 AM**	

Compound	%Recovery	Method Limits
TPH (Gasoline Range)	84	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	110	75-150

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Client Sample ID: LCSD

Lab ID#: 1411371-04BB

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	**d120219**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/2/14 10:01 PM**	

Compound	%Recovery	Method Limits
TPH (Gasoline Range)	82	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	93	75-150

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

December 11, 2014

Project: 95607

Submittal Date: 12/03/2014
Group Number: 1522572
PO Number: 0015157270
Release Number: HETRICK
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
EFF-1-W-141202 Grab Groundwater	7695410
MID-1-W-141202 Grab Groundwater	7695412
INF-1-W-141202 Grab Groundwater	7695413

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

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	CRA	Attn: Judy Gilbert
ELECTRONIC COPY TO	CRA	Attn: Darrell Smolko

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: EFF-1-W-141202 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695410
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 12:30 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

EFCCV

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**		ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	20	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10335	Benzene	71-43-2	N.D.	0.5	1	1
10335	Bromobenzene	108-86-1	N.D.	1	5	1
10335	Bromochloromethane	74-97-5	N.D.	1	5	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1	1
10335	Bromoform	75-25-2	N.D.	0.5	4	1
10335	Bromomethane	74-83-9	N.D.	0.5	1	1
10335	2-Butanone	78-93-3	N.D.	3	10	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	20	1
10335	n-Butylbenzene	104-51-8	N.D.	1	5	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	5	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	5	1
10335	Carbon Disulfide	75-15-0	N.D.	1	5	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1	1
10335	Chloroethane	75-00-3	N.D.	0.5	1	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	10	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
10335	Chloroform	67-66-3	N.D.	0.5	1	1
10335	Chloromethane	74-87-3	N.D.	0.5	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	5	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	5	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	5	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	5	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1	1
10335	Ethanol	64-17-5	N.D.	50	250	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10335	Freon 113	76-13-1	N.D.	2	10	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	5	1
10335	2-Hexanone	591-78-6	N.D.	3	10	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1

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

Sample Description: EFF-1-W-141202 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695410
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 12:30 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

EFCCV

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**		**ug/l**		**ug/l**	**ug/l**	
10335	Isopropylbenzene	98-82-8	N.D.		1	5	1
10335	p-Isopropyltoluene	99-87-6	N.D.		1	5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.		3	10	1
10335	Methylene Chloride	75-09-2	N.D.		2	4	1
10335	Naphthalene	91-20-3	N.D.		1	5	1
10335	n-Propylbenzene	103-65-1	N.D.		1	5	1
10335	Styrene	100-42-5	N.D.		1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.		0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.5	1	1
10335	Tetrachloroethene	127-18-4	N.D.		0.5	1	1
10335	Toluene	108-88-3	N.D.		0.5	1	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.		1	5	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.		1	5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.		0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.		0.5	1	1
10335	Trichloroethene	79-01-6	N.D.		0.5	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.		0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.		1	5	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.		1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.		1	5	1
10335	Vinyl Chloride	75-01-4	N.D.		0.5	1	1
10335	m+p-Xylene	179601-23-1	N.D.		0.5	1	1
10335	o-Xylene	95-47-6	N.D.		0.5	1	1
GC Volatiles	**SW-846 8015B**		**ug/l**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.		50	100	1
Metals	**SW-846 6020A**		**ug/l**		**ug/l**	**ug/l**	
06024	Antimony	7440-36-0	N.D.		0.33	2.0	1
06025	Arsenic	7440-38-2	2.3	J	0.82	4.0	1
06026	Barium	7440-39-3	193		0.58	4.0	1
06027	Beryllium	7440-41-7	N.D.		0.045	1.0	1
06028	Cadmium	7440-43-9	N.D.		0.17	1.0	1
06031	Chromium	7440-47-3	N.D.		0.50	4.0	1
06032	Cobalt	7440-48-4	0.62	J	0.10	1.0	1
06033	Copper	7440-50-8	2.4	J	0.50	4.0	1
06035	Lead	7439-92-1	N.D.		0.082	2.0	1
06038	Molybdenum	7439-98-7	1.8		0.25	1.0	1
06039	Nickel	7440-02-0	1.0	J	0.79	4.0	1
06041	Selenium	7782-49-2	N.D.		0.50	4.0	1
06042	Silver	7440-22-4	N.D.		0.13	1.0	1
06045	Thallium	7440-28-0	N.D.		0.15	1.0	1
06048	Vanadium	7440-62-2	N.D.		0.22	1.0	1
06049	Zinc	7440-66-6	N.D.		2.4	30.0	1
	SW-846 7470A		**ug/l**		**ug/l**	**ug/l**	
00259	Mercury	7439-97-6	N.D.		0.060	0.20	1

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

Sample Description: EFF-1-W-141202 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695410
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 12:30 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

EFCCV

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Wet Chemistry	**SW-846 9012A**		**ug/l**	**ug/l**	**ug/l**	
08255	Total Cyanide (water)	57-12-5	N.D.	5.0	10	1
	SW-846 9066		**ug/l**	**ug/l**	**ug/l**	
02393	Phenols (water)	n.a.	N.D.	15	40	1
	EPA 1664A		**ug/l**	**ug/l**	**ug/l**	
08079	HEM (oil & grease)	n.a.	N.D.	1,400	5,000	1

General Sample Comments

CA ELAP Lab Certification No. 2792
Trip blank vials were not received by the laboratory for this sample group.

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
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N143421AA	12/08/2014 12:58	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N143421AA	12/08/2014 12:58	Linda C Pape	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14339A94A	12/08/2014 19:10	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14339A94A	12/08/2014 19:10	Brett W Kenyon	1
06024	Antimony	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06025	Arsenic	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06026	Barium	SW-846 6020A	1	143390639001D	12/09/2014 03:40	Tara L Snyder	1
06027	Beryllium	SW-846 6020A	1	143390639001A	12/10/2014 08:18	Choon Y Tian	1
06028	Cadmium	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06031	Chromium	SW-846 6020A	1	143390639001A	12/10/2014 08:18	Choon Y Tian	1
06032	Cobalt	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06033	Copper	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06035	Lead	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06038	Molybdenum	SW-846 6020A	1	143390639001C	12/09/2014 03:40	Tara L Snyder	1
06039	Nickel	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06041	Selenium	SW-846 6020A	1	143390639001B	12/09/2014 03:40	Tara L Snyder	1
06042	Silver	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06045	Thallium	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
06048	Vanadium	SW-846 6020A	1	143390639001A	12/10/2014 11:45	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	143390639001A	12/09/2014 03:40	Tara L Snyder	1
00259	Mercury	SW-846 7470A	1	143385713003	12/05/2014 07:02	Damary Valentin	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	143390639001	12/08/2014 09:32	Micaela L Dishong	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	143385713003	12/04/2014 16:37	James L Mertz	1
08255	Total Cyanide (water)	SW-846 9012A	1	14343117101B	12/10/2014 10:04	Drew M Gerhart	1

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

Sample Description: **EFF-1-W-141202 Grab Groundwater**
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695410
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 12:30 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

EFCCV

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
02393	Phenols (water)	SW-846 9066	1	14339120101B	12/06/2014 12:15	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	14343117101B	12/09/2014 10:25	Nancy J Shoop	1
08123	Phenol Distillation (SW-846)	SW-846 9065	1	14339120101B	12/05/2014 09:55	Nancy J Shoop	1
08079	HEM (oil & grease)	EPA 1664A	1	14338807901A	12/04/2014 18:24	Michelle L Lalli	1

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

Sample Description: MID-1-W-141202 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695412
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 13:00 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

M1CCV

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**		ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	N.D.	0.5	1	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene	108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	BTEX/MTBE	SW-846 8260B	1	F143382AA	12/04/2014 16:22	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143382AA	12/04/2014 16:22	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14339A94A	12/08/2014 18:44	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	14339A94A	12/08/2014 18:44	Brett W Kenyon	1

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

Sample Description: INF-1-W-141202 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7695413
LL Group # 1522572
Account # 10880

Project Name: 95607

Collected: 12/02/2014 13:15 by DS

Submitted: 12/03/2014 10:20
Reported: 12/11/2014 15:38

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

INCCV

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**		ug/l	ug/l	ug/l	
10945	Benzene	71-43-2	780	5	10	10
10945	Ethylbenzene	100-41-4	160	0.5	1	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	4	0.5	1	1
10945	Toluene	108-88-3	150	0.5	1	1
10945	Xylene (Total)	1330-20-7	810	5	10	10
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	7,000	250	500	5

General Sample Comments

CA ELAP Lab Certification No. 2792

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
10945	BTEX/MTBE	SW-846 8260B	1	F143391AA	12/05/2014 14:08	Anita M Dale	1
10945	BTEX/MTBE	SW-846 8260B	1	F143391AA	12/05/2014 14:30	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F143391AA	12/05/2014 14:08	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F143391AA	12/05/2014 14:30	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14339A94A	12/08/2014 21:18	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	14339A94A	12/08/2014 21:18	Brett W Kenyon	5

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

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1522572
Reported: 12/11/14 at 03:38 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: F143382AA	Sample number(s): 7695412								
Benzene	N.D.	0.5	1	ug/l	96	96	78-120	0	30
Ethylbenzene	N.D.	0.5	1	ug/l	99	98	79-120	1	30
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	90	92	75-120	3	30
Toluene	N.D.	0.5	1	ug/l	101	99	80-120	2	30
Xylene (Total)	N.D.	0.5	1	ug/l	95	93	80-120	2	30
Batch number: F143391AA	Sample number(s): 7695413								
Benzene	N.D.	0.5	1	ug/l	97		78-120		
Ethylbenzene	N.D.	0.5	1	ug/l	97		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	96		75-120		
Toluene	N.D.	0.5	1	ug/l	100		80-120		
Xylene (Total)	N.D.	0.5	1	ug/l	95		80-120		
Batch number: N143421AA	Sample number(s): 7695410								
Acetone	N.D.	6.	20	ug/l	87	92	55-129	5	30
t-Amyl methyl ether	N.D.	0.5	1	ug/l	94	96	75-120	2	30
Benzene	N.D.	0.5	1	ug/l	102	106	78-120	3	30
Bromobenzene	N.D.	1.	5	ug/l	100	103	80-120	3	30
Bromochloromethane	N.D.	1.	5	ug/l	96	94	80-121	1	30
Bromodichloromethane	N.D.	0.5	1	ug/l	89	91	73-120	2	30
Bromoform	N.D.	0.5	4	ug/l	77	82	61-120	6	30
Bromomethane	N.D.	0.5	1	ug/l	83	81	53-130	2	30
2-Butanone	N.D.	3.	10	ug/l	99	103	54-133	4	30
t-Butyl alcohol	N.D.	5.	20	ug/l	93	98	75-120	6	30
n-Butylbenzene	N.D.	1.	5	ug/l	100	103	68-120	3	30
sec-Butylbenzene	N.D.	1.	5	ug/l	106	110	75-120	4	30
tert-Butylbenzene	N.D.	1.	5	ug/l	99	107	80-120	7	30
Carbon Disulfide	N.D.	1.	5	ug/l	78	80	58-126	3	30
Carbon Tetrachloride	N.D.	0.5	1	ug/l	88	91	74-130	3	30
Chlorobenzene	N.D.	0.5	1	ug/l	102	105	80-120	3	30
Chloroethane	N.D.	0.5	1	ug/l	85	83	56-120	3	30
2-Chloroethyl Vinyl Ether	N.D.	2.	10	ug/l	97	98	62-128	1	30
Chloroform	N.D.	0.5	1	ug/l	95	98	80-122	3	30
Chloromethane	N.D.	0.5	1	ug/l	88	87	63-120	2	30
2-Chlorotoluene	N.D.	1.	5	ug/l	106	108	80-120	2	30
4-Chlorotoluene	N.D.	1.	5	ug/l	104	108	80-120	4	30
1,2-Dibromo-3-chloropropane	N.D.	2.	5	ug/l	89	95	56-120	6	30
Dibromochloromethane	N.D.	0.5	1	ug/l	91	93	72-120	3	30
1,2-Dibromoethane	N.D.	0.5	1	ug/l	102	107	80-120	5	30
Dibromomethane	N.D.	0.5	1	ug/l	94	98	80-120	4	30
1,2-Dichlorobenzene	N.D.	1.	5	ug/l	99	103	80-120	3	30
1,3-Dichlorobenzene	N.D.	1.	5	ug/l	99	103	80-120	3	30
1,4-Dichlorobenzene	N.D.	1.	5	ug/l	99	102	80-120	3	30

*- 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: 1522572
Reported: 12/11/14 at 03:38 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Dichlorodifluoromethane	N.D.	0.5	1	ug/l	83	82	55-127	2	30
1,1-Dichloroethane	N.D.	0.5	1	ug/l	98	101	80-120	2	30
1,2-Dichloroethane	N.D.	0.5	1	ug/l	90	93	65-135	4	30
1,1-Dichloroethene	N.D.	0.5	1	ug/l	96	98	76-124	2	30
cis-1,2-Dichloroethene	N.D.	0.5	1	ug/l	101	103	80-120	2	30
trans-1,2-Dichloroethene	N.D.	0.5	1	ug/l	102	103	80-120	1	30
1,2-Dichloropropane	N.D.	0.5	1	ug/l	106	109	80-120	3	30
1,3-Dichloropropane	N.D.	0.5	1	ug/l	104	109	80-120	5	30
2,2-Dichloropropane	N.D.	0.5	1	ug/l	94	97	67-124	3	30
1,1-Dichloropropene	N.D.	1.	5	ug/l	103	107	80-126	4	30
cis-1,3-Dichloropropene	N.D.	0.5	1	ug/l	99	103	80-120	3	30
trans-1,3-Dichloropropene	N.D.	0.5	1	ug/l	101	106	76-120	5	30
Ethanol	N.D.	50.	250	ug/l	77	81	58-139	5	30
Ethyl t-butyl ether	N.D.	0.5	1	ug/l	92	95	69-120	4	30
Ethylbenzene	N.D.	0.5	1	ug/l	99	103	79-120	3	30
Freon 113	N.D.	2.	10	ug/l	86	89	67-127	3	30
Hexachlorobutadiene	N.D.	2.	5	ug/l	80	84	51-125	6	30
2-Hexanone	N.D.	3.	10	ug/l	101	106	57-127	5	30
di-Isopropyl ether	N.D.	0.5	1	ug/l	97	101	61-132	4	30
Isopropylbenzene	N.D.	1.	5	ug/l	97	102	80-120	5	30
p-Isopropyltoluene	N.D.	1.	5	ug/l	98	102	76-120	4	30
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	91	94	75-120	3	30
4-Methyl-2-pentanone	N.D.	3.	10	ug/l	98	101	51-124	3	30
Methylene Chloride	N.D.	2.	4	ug/l	99	100	80-120	1	30
Naphthalene	N.D.	1.	5	ug/l	92	98	47-126	7	30
n-Propylbenzene	N.D.	1.	5	ug/l	109	113	80-120	3	30
Styrene	N.D.	1.	5	ug/l	98	102	80-120	4	30
1,1,1,2-Tetrachloroethane	N.D.	0.5	1	ug/l	94	97	80-120	3	30
1,1,2,2-Tetrachloroethane	N.D.	0.5	1	ug/l	109	113	70-120	4	30
Tetrachloroethene	N.D.	0.5	1	ug/l	96	100	80-120	4	30
Toluene	N.D.	0.5	1	ug/l	104	108	80-120	4	30
1,2,3-Trichlorobenzene	N.D.	1.	5	ug/l	90	94	68-123	5	30
1,2,4-Trichlorobenzene	N.D.	1.	5	ug/l	90	96	73-120	6	30
1,1,1-Trichloroethane	N.D.	0.5	1	ug/l	85	88	66-126	4	30
1,1,2-Trichloroethane	N.D.	0.5	1	ug/l	104	108	80-120	4	30
Trichloroethene	N.D.	0.5	1	ug/l	99	103	80-120	4	30
Trichlorofluoromethane	N.D.	0.5	1	ug/l	91	87	58-135	4	30
1,2,3-Trichloropropane	N.D.	1.	5	ug/l	103	107	76-120	3	30
1,2,4-Trimethylbenzene	N.D.	1.	5	ug/l	104	108	80-120	4	30
1,3,5-Trimethylbenzene	N.D.	1.	5	ug/l	104	108	80-120	3	30
Vinyl Chloride	N.D.	0.5	1	ug/l	94	92	63-120	2	30
m+p-Xylene	N.D.	0.5	1	ug/l	98	102	80-120	4	30
o-Xylene	N.D.	0.5	1	ug/l	97	101	80-120	4	30
Batch number: 14339A94A	Sample number(s): 7695410,7695412-7695413								
TPH-GRO N. CA water C6-C12	N.D.	50.	100	ug/l	106	105	80-139	1	30
Batch number: 143385713003	Sample number(s): 7695410								
Mercury	N.D.	0.060	0.20	ug/l	104		80-120		
Batch number: 143390639001A	Sample number(s): 7695410								
Antimony	N.D.	0.33	2.0	ug/l	109		80-120		
Arsenic	N.D.	0.82	4.0	ug/l	101		80-120		
Beryllium	N.D.	0.045	1.0	ug/l	104		80-120		
Cadmium	N.D.	0.17	1.0	ug/l	100		80-120		
Chromium	N.D.	0.50	4.0	ug/l	101		80-120		

*- Outside of specification
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(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: 1522572
Reported: 12/11/14 at 03:38 PM

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Cobalt	N.D.	0.10	1.0	ug/l	101		80-120		
Copper	N.D.	0.50	4.0	ug/l	100		80-120		
Lead	N.D.	0.082	2.0	ug/l	101		80-120		
Nickel	N.D.	0.79	4.0	ug/l	103		80-120		
Silver	N.D.	0.13	1.0	ug/l	104		80-120		
Thallium	N.D.	0.15	1.0	ug/l	101		80-120		
Vanadium	N.D.	0.22	1.0	ug/l	103		80-120		
Zinc	N.D.	2.4	30.0	ug/l	104		80-120		
Batch number: 143390639001B	Sample number(s): 7695410								
Selenium	N.D.	0.50	4.0	ug/l	105		80-120		
Batch number: 143390639001C	Sample number(s): 7695410								
Molybdenum	0.30 J	0.25	1.0	ug/l	105		80-120		
Batch number: 143390639001D	Sample number(s): 7695410								
Barium	N.D.	0.58	4.0	ug/l	103		80-120		
Batch number: 14339120101B	Sample number(s): 7695410								
Phenols (water)	N.D.	15.	40	ug/l	92		82-109		
Batch number: 14343117101B	Sample number(s): 7695410								
Total Cyanide (water)	N.D.	5.0	10	ug/l	99		90-110		
Batch number: 14338807901A	Sample number(s): 7695410								
HEM (oil & grease)	N.D.	1,400.	5,000	ug/l	86	85	78-114	1	16

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: F143391AA	Sample number(s): 7695413 UNSPK: P696219								
Benzene	101	99	72-134	1	30				
Ethylbenzene	104	104	71-134	0	30				
Methyl Tertiary Butyl Ether	94	91	72-126	3	30				
Toluene	106	106	80-125	0	30				
Xylene (Total)	102	99	79-125	2	30				
Batch number: 143385713003	Sample number(s): 7695410 UNSPK: P694535 BKG: P694535								
Mercury	101	99	75-125	1	20	N.D.	N.D.	0 (1)	20
Batch number: 143390639001A	Sample number(s): 7695410 UNSPK: 7695410 BKG: 7695410								
Antimony	109	112	75-125	2	20	N.D.	N.D.	0 (1)	20
Arsenic	99	105	75-125	5	20	2.3 J	1.9 J	16 (1)	20
Beryllium	105	109	75-125	3	20	N.D.	N.D.	0 (1)	20
Cadmium	104	102	75-125	2	20	N.D.	N.D.	0 (1)	20
Chromium	104	103	75-125	1	20	N.D.	N.D.	0 (1)	20
Cobalt	103	101	75-125	2	20	0.62 J	0.72 J	15 (1)	20
Copper	103	101	75-125	2	20	2.4 J	2.6 J	9 (1)	20
Lead	105	104	75-125	1	20	N.D.	N.D.	0 (1)	20

*- Outside of specification
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(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: 1522572
Reported: 12/11/14 at 03:38 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
Nickel	105	104	75-125	0	20	1.0	J	1.2	J	13 (1)	20
Silver	103	101	75-125	2	20	N.D.		N.D.		0 (1)	20
Thallium	105	108	75-125	3	20	N.D.		N.D.		0 (1)	20
Vanadium	104	102	75-125	2	20	N.D.		N.D.		0 (1)	20
Zinc	101	103	75-125	2	20	N.D.		N.D.		0 (1)	20
Batch number: 143390639001B	Sample number(s): 7695410 UNSPK: 7695410 BKG: 7695410										
Selenium	105	101	75-125	3	20	N.D.		N.D.		0 (1)	20
Batch number: 143390639001C	Sample number(s): 7695410 UNSPK: 7695410 BKG: 7695410										
Molybdenum	107	110	75-125	2	20	1.8		1.3		29* (1)	20
Batch number: 143390639001D	Sample number(s): 7695410 UNSPK: 7695410 BKG: 7695410										
Barium	109	111	75-125	0	20	193		194		0	20
Batch number: 14339120101B	Sample number(s): 7695410 UNSPK: P696330										
Phenols (water)	93	99	50-133	6	8						
Batch number: 14343117101B	Sample number(s): 7695410 UNSPK: P695570 BKG: P695570										
Total Cyanide (water)	102		43-137			N.D.		N.D.		0 (1)	20
Batch number: 14338807901A	Sample number(s): 7695410 UNSPK: P694517										
HEM (oil & grease)	85		78-114								

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: BTEX/MTBE
Batch number: F143382AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7695412	92	100	107	102
Blank	92	100	108	102
LCS	93	102	108	103
LCSD	92	103	108	102
Limits:	80-116	77-113	80-113	78-113

Analysis Name: BTEX/MTBE
Batch number: F143391AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7695413	91	98	109	104
Blank	91	101	109	102
LCS	92	100	109	103
MS	91	101	110	104
MSD	92	101	111	111
Limits:	80-116	77-113	80-113	78-113

*- 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: 1522572
Reported: 12/11/14 at 03:38 PM

Surrogate Quality Control

Analysis Name: 8260 Full List w/ Sep. Xylenes
Batch number: N143421AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7695410	94	100	99	92
Blank	93	101	99	93
LCS	93	99	102	99
LCSD	92	99	102	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 14339A94A

	Trifluorotoluene-F
7695410	79
7695412	80
7695413	97
Blank	80
LCS	92
LCSD	91
Limits:	63-135

*- 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.

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # 10880 Group # 1522572 Sample # 7695410-13

Client: Chevron EMC		Matrix		Analyses Requested	For Lab Use Only
Project Name/#: Castro Valley	Site ID #: 95607			Preservation Codes	SF #:
Project Manager: Judy Gilbert	P.O. #: Direct Bill To Chevro				SCR #:
Sampler: Darrell Smolko	PWSID #:				
Phone #: 925 334 -8617	Quote #:				
State where sample(s) were collected: GWE Effluent					

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

Sample Identification	Collection Date	Collection Time	Grab	Composite	Sediment / Soil	Water (Ground ☑)	Other:	Total # of Containers	TPH-g by 8015M	BTEX by 8260	MTBE by 8260	METALS by 6020B	VOCs by 8260	TOG by 1664A	Phenolics by 9065	CN by 9016			Remarks
EFF-1	12/2/14	1230	X			X		11	X	X	X	X	X	X	X	X			
MID-2	↓	1245	X			X		6	X	X	X								HOLD MID-2, SAMPLE ONLY IF MID-1 > N.D.
MID-1	↓	100	X			X		6	X	X	X								
INF-1	↓	115	X			X		6	X	X	X								

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address: jgilbert@craworld.com dsmolko@craworld.com

Phone: 925-334-8617 510-420-3314

Data Package Options (please check if required)

- Type I (Validation/non-CLP) ☐ MA MCP ☐
- Type III (Reduced non-CLP) ☐ CT RCP ☐
- Type IV (CLP SOW) ☐ TX TRRP-13 ☐
- Type VI (Raw Data Only) ☐

EDD Required? Yes ☑ No ☐ If yes, format: Zip File

Relinquished by:	Date	Time	Received by:	Date	Time
Darrell Smolko	12/2/14	400			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: C Eshle	12/3/14	1020

Relinquished by Commercial Carrier: UPS ____ FedEx ✓ Other ____

Temperature upon receipt 0.6 °C

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 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

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.