



Eric Hetrick
Project Manager
Marketing Business Unit

**Chevron Environmental
Management Company**
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October 30, 2014

RECEIVED

By Alameda County Environmental Health at 10:05 am, Nov 03, 2014

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 First Monthly Remedial Progress Report and As-Built Documents.

I agree with the conclusions and recommendations presented in the referenced report. This 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,

A handwritten signature in black ink, appearing to read "Eric Hetrick".

Eric Hetrick
Project Manager

Attachment: First Monthly Remedial Progress Report and As-Built Documents



**CONESTOGA-ROVERS
& ASSOCIATES**

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

October 30, 2014

Reference No. 311950

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

Re: First Monthly Remedial Progress Report and As-Built Documents
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 first Monthly Remedial Progress Report (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. As requested in the December 13, 2013 letter, this report includes the as-built drawings of the dual-phase extraction (DPE) system (Figure 2) and a summary of the DPE system operations conducted in the month of September 2014. The DPE system officially began full-time operation on September 29, 2014.

DPE system pre-startup compliance testing and sampling was performed on September 12, 2014 in accordance with system operational permits. During startup testing and since full-time operation began on September 29, 2014, approximately 65.79 pounds (lb) of total petroleum hydrocarbons as gasoline (TPHg) have been removed in vapor phase (Table 4), and approximately 0.08 lb of TPHg have been removed in dissolved phase (Table 2). A summary of the DPE system operational performance for the month of September 2014 is presented below.

VAPOR-PHASE EXTRACTION DATA-SEPTEMBER 2014

Soil Vapor Influent Flow Rate (avg scfm)	236 scfm
Soil Vapor Laboratory Influent Concentrations (ppmv)	4,200 ppmv
Soil Vapor Mass Removal (lb TPHg/period)	65.79 lb
Soil Vapor Mass Removal (lb Benzene/period)	0.63 lb
Soil Vapor Extraction Period Operating Uptime (hours)	5.5 hours
Soil Vapor Treatment Destruction Efficiency (%)	98.9%

ppmv - parts per million by volume

Equal
Employment Opportunity
Employer



**CONESTOGA-ROVERS
& ASSOCIATES**

October 30, 2014

Reference No. 311950

- 2 -

DISSOLVED-PHASE EXTRACTION DATA-SEPTEMBER 2014

Maximum Groundwater Extraction Rate (gpm)	3.7 gpm
Average Groundwater Extraction Rate (gpm)	2.54 gpm
Dissolved-Phase Mass Removal Rate (lb TPHg/period)	0.08 lb
Total Volume Groundwater Treated (gallons)	1,600 gallons
Groundwater Extraction Period Operating Uptime (hours)	11.5 hours

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

Darrell Smolko

Brandon S. Wilken, PG 7564



JG/mws/32

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

- Figure 1 General Site Plan
 Figure 2 GW Equipment Layout
 Figure 3 SVE Equipment Layout
 Figure 4 E1 Process Flow Diagram 1
 Figure 5 E2 Process Flow Diagram 2



**CONESTOGA-ROVERS
& ASSOCIATES**

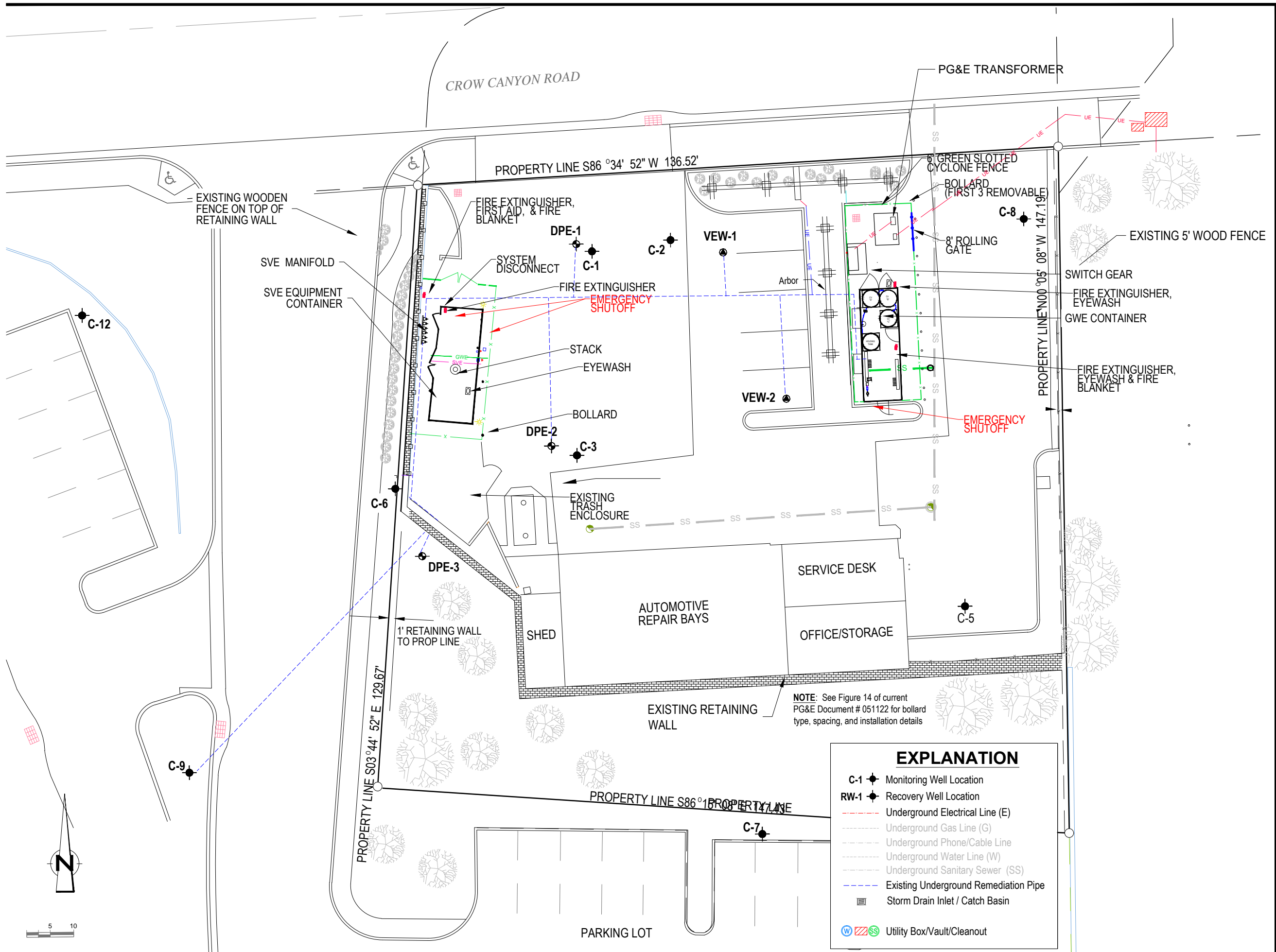
October 30, 2014

Reference No. 311950

- 3 -

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:	December 11, 2013 ACEH Letter
Attachment B:	Laboratory Analytical Reports

FIGURES



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 ^o	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.

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Source Reference:

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

EXPLANATION

- C-1 ● Monitoring Well Location
- RW-1 ● Recovery Well Location
- Underground Electrical Line (E)
- Underground Gas Line (G)
- Underground Phone/Cable Line
- Underground Water Line (W)
- Underground Sanitary Sewer (SS)
- - - Existing Underground Remediation Pipe
- Storm Drain Inlet / Catch Basin
- Ⓜ Ⓟ Ⓢ Utility Box/Vault/Cleanout

CLIENT

CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY

PROJECT

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

TITLE

DUAL-PHASE EXTRACTION
GW SYSTEM LAYOUT

PROJECT #311950

DRAWING STATUS

N ^o	Revision	Date	By
01	UPDATE WITH ACTUAL UNIT	10/24/13	DAK
02	ADD FIRE DEPARTMENT KEY BOX	10/24/13	DAK
03	ADD SIGNAGE	10/24/13	DAK

SCALE VERIFICATION

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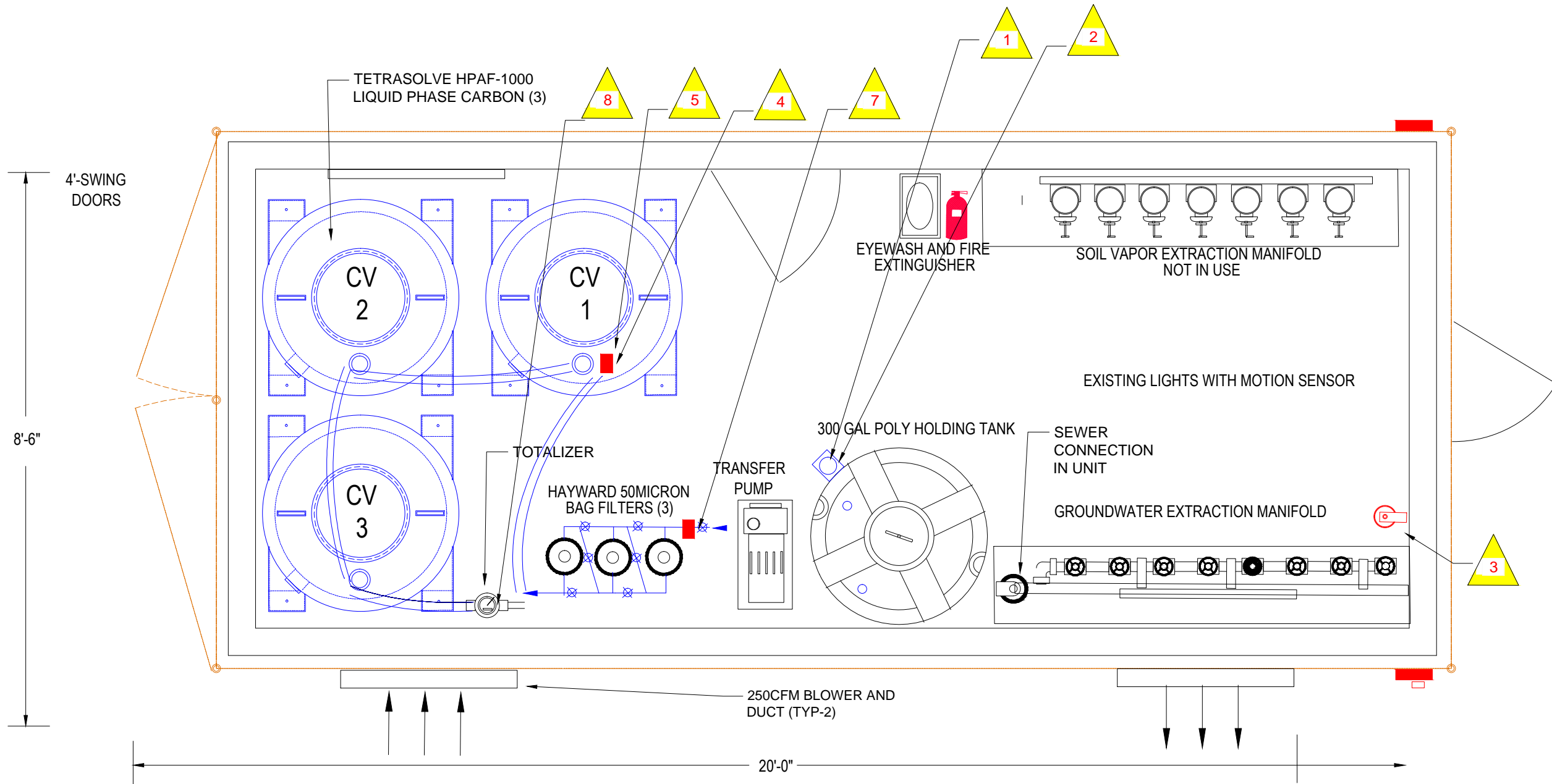


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Source Reference:





Designed By: DS	Date: 10/8/2014	Drawing N ^o : FIG 2
Drafted By: DS	Date: 10/8/2014	
Reviewed By:	Date:	

Scale: 1:10



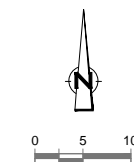
CONTROL DEVICES

-  1. LOW LEVEL SWITCH-TRANSFER TANK SHUTS OFF TRANSFER PUMP
-  2. HIGH-HIGH LEVEL SWITCH-TRANSFER TANK SHUTS SYSTEM OFF TO PREVENT TANK OVERFLOW
-  3. HIGH-HIGH LEVEL SWITCH ON SECONDARY CONTAINMENT SHUTS SYSTEM OFF TO PREVENT RELEASE
-  4. HIGH PRESSURE SWITCH-LEAD CARBON VESSEL SHUTS SYSTEM OFF TO PREVENT RELEASE

-  5. HIGH PRESSURE RELIEF VALVE-LEAD CARBON VESSEL RELIEVE PRESSURE AT LEAD CARBON VESSEL
-  6. HIGH-HIGH LEVEL SWITCH-WELL VAULTS SHUTS SYSTEM OFF TO PREVENT RELEASE
-  7. HIGH-HIGH PRESSURE SWITCH-LEAD FILTER SHUTS SYSTEM OFF TO PREVENT RELEASE
-  8. PROCESS WATER FLOW TOTALIZER RECORDS TOTAL DISCHARGE OF PROCESS WATER

SIGNS (ON OUTSIDE OF CONTAINER)

1. CRA EMERGENCY CONTACT INFO
2. PROPOSITION 65
3. NO SMOKING
4. 15"x15" NFPA 704 PLACKARD:
0-HEALTH
1-FLAMMABILITY
0-REACTIVITY
BLANK-SPECIAL HAZARD



CLIENT
CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY

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

TITLE
DUAL PHASE EXTRACTION
SYSTEM
PROCESS FLOW DIAGRAM 1

PROJECT #311950

DRAWING STATUS











N ^o	Revision	Date	By

SCALE VERIFICATION
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



























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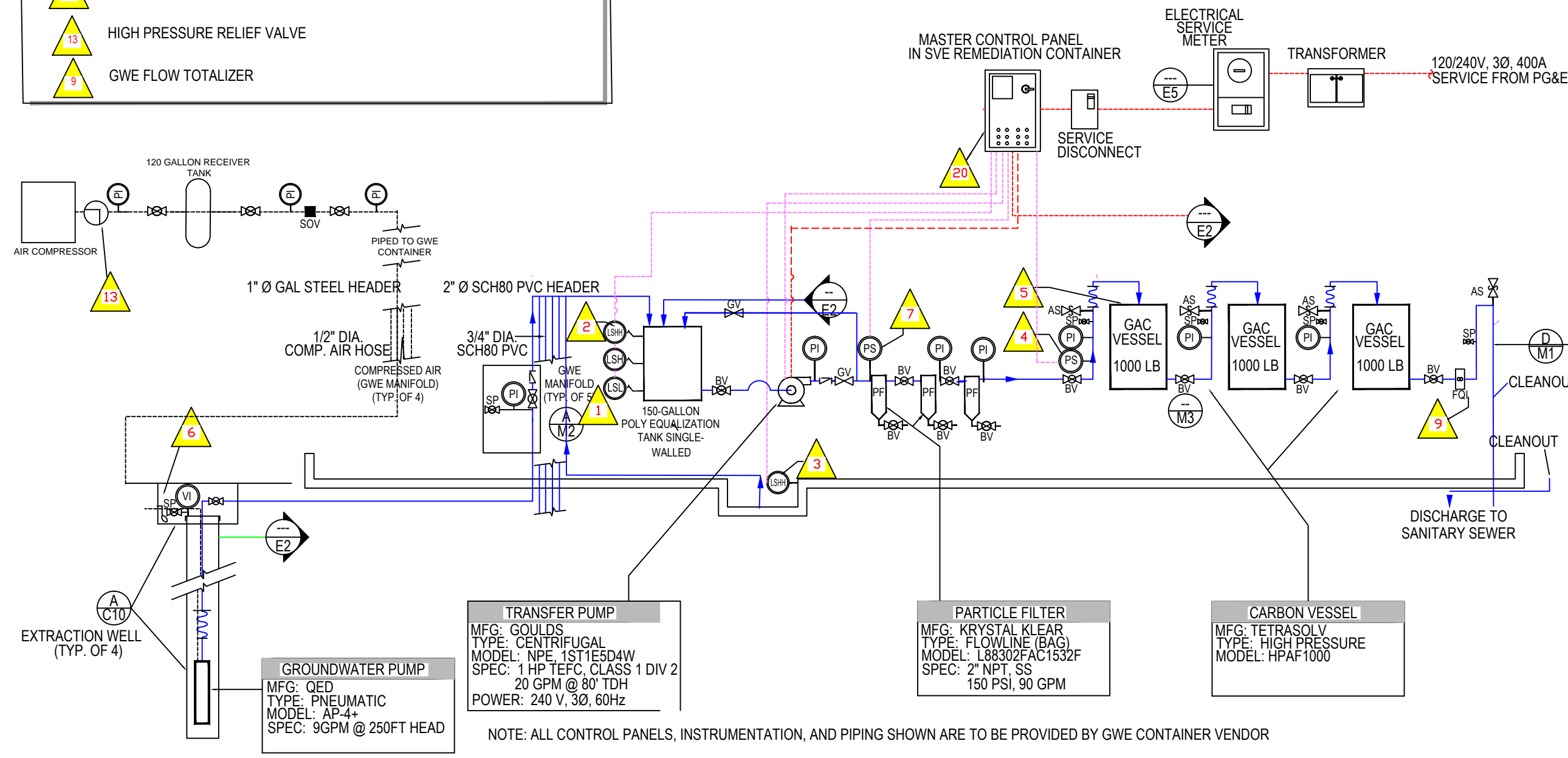
Source Reference:

Designed By: DK	Date: 10/24/13	Drawing N ^o FIG 4
Drafted By: DS	Date: 8/11/14	
Reviewed By: DK	Date: 8/15/14	
Scale:		

- CRITICAL DEVICES:**
-  EMERGENCY STOP
 -  LOW LEVEL SWITCH-TRANSFER TANK
 -  HIGH LEVEL SWITCH ON TRANSFER TANK
 -  HIGH LEVEL SWITCH ON SECONDARY CONTAINMENT BERM
 -  HIGH PRESSURE SWITCH-LEAD CARBON
 -  HIGH PRESSURE RELIEF VALVE-LEAD CARBON
 -  WELL SUMP LEVEL SWITCH
 -  HIGH-HIGH PRESSURE-LEAD FILTER
 -  HIGH PRESSURE RELIEF VALVE
 -  GWE FLOW TOTALIZER

EXPLANATION

 VACUUM BREAKER	 QUICK DISCONNECT	 CHECK VALVE	 SVE PIPING
 FLOWMETER/INDICATOR	 LEVEL SWITCH - HI HI	 PRESSURE RELIEF VALVE	 ELECTRICAL CONTROL WIRING
 BV = BALL VALVE	 LEVEL SWITCH - HI	 PRESSURE INDICATOR	 ELECTRICAL POWER WIRING
 GV = GATE VALVE	 LEVEL SWITCH - LOW	 VACUUM INDICATOR	 COMPRESSED AIR LINE
 SP	 PRESSURE TRANSMITTING SWITCH	 WATER TRAP	 GROUNDWATER PIPING
 FLEXIBLE HOSE	 FLOW INDICATOR	 AIR FILTER AND AIR PRESSURE REGULATOR	 CRITICAL DEVICE
 SOLENOID VALVE	 MOTOR	 VACUUM/PRESSURE RELIEF VALVE	
 CC			



CLIENT
CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY

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

TITLE
DUAL PHASE EXTRACTION
SYSTEM
PROCESS FLOW DIAGRAM 2

PROJECT #311950

DRAWING STATUS

N ^o	Revision	Date	By

SCALE VERIFICATION
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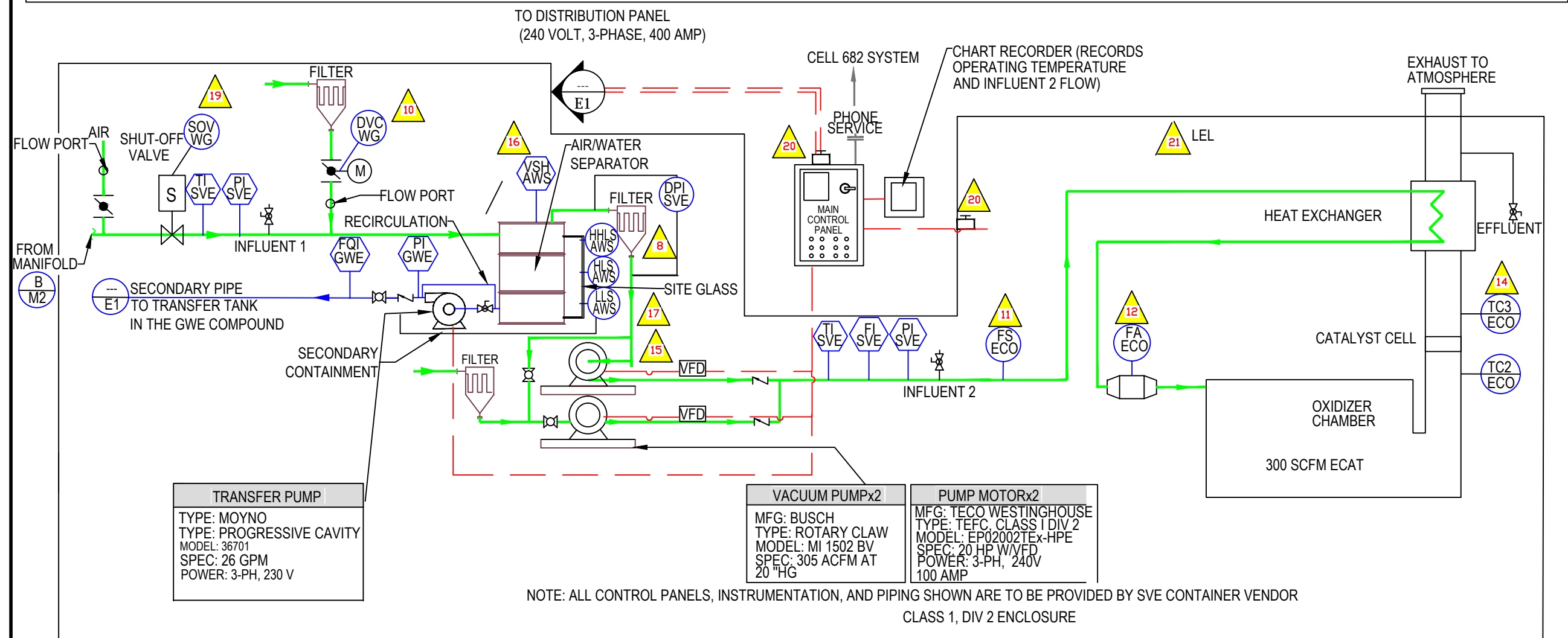
Source Reference:

Designed By: DS	Date: 10/3/2014	Drawing N ^o FIG 5
Drafted By: DS	Date: 10/3/2014	
Reviewed By:	Date:	

Scale:

EXPLANATION

VFD	VARIABLE FREQUENCY DRIVE	Sample Port	AWS - AIR WATER SEPARATOR	HLS - HIGH LEVEL SWITCH	PRI - PURGE RELAY TIMER
Gate Valve	GATE VALVE	Check Valve	DPI - DIFFERENTIAL PRESSURE GAUGE	TC3 - TEMPERATURE CONTROLLER (AFTER CATALYST PLATE)	VI - VACUUM INDICATOR
Butterfly Valve	BUTTERFLY VALVE	Flow Control Valve	FA - FLAME ARRESTOR	TC2 - TEMPERATURE CONTROLLER (ACROSS CATALYST PLATE)	SOV - SHUTOFF VALVE
MOT M	MOTOR OPERATED BUTTERFLY VALVE	Pressure Regulator	FCV - FLOW CONTROL VALVE (AUTOMATIC)	TC1 - TEMPERATURE CONTROLLER (OXIDIZER CHAMBER)	SVE - SOIL VAPOR EXTRACTION
Ball Valve	BALL VALVE	Solenoid Valve	FD - FLAME DETECTOR	TI - TEMPERATURE INDICATOR	SV - SOLENOID VALVE
Emergency Shutoff	EMERGENCY SHUTOFF	Flow Port (3 Pipe Diameters From Junction Downstream and 4 Pipe Diameters Upstream)	FI - FLOW INDICATOR	LLS - LOW LEVEL SWITCH	WG - WELL GAS
Relay	RELAY		FQI - FLOW TOTALIZER	LPS - LOW PRESSURE SWITCH	SVE PIPING
			GWE - GROUNDWATER EXTRACTION	PI - PRESSURE INDICATOR	ELECTRICAL/CONTROL WIRING
			DVC - DILUTION CONTROL VALVE	ECO - ELECTRIC CATALYTIC OXIDIZER	GROUNDWATER PIPING
			HHS - HIGH HIGH LEVEL SWITCH		



- CRITICAL DEVICES:**
- 20 EMERGENCY SHUTOFF SWITCH (SHUTS DOWN THE SVE SYSTEM WHEN PRESSED)
 - 19 AUTOMATIC SHUT OFF VALVE - WELL GAS (SHUTS OFF WELL GAS IF THE OXIDIZER TEMPERATURE IS OUT OF OPERATIONAL RANGE)
 - 10 AUTOMATIC DILUTION AIR VALVE ON WELL GAS (PREVENTS THE OXIDIZER FROM GOING OVER TEMPERATURE BY INTRODUCING FRESH AIR)
 - 15 HIGH VACUUM SWITCH (SHUTS DOWN THE SVE SYSTEM AT HIGH VACUUM CONDITIONS)
 - 8 HIGH-HIGH LEVEL SWITCH IN AIR/WATER SEPERATOR (SHUTS DOWN THE SVE SYSTEM AT HIGH WATER LEVEL)
 - 14 TEMPERATURE SWITCH - OXIDIZER OUTLET (SHUTS DOWN THE SVE SYSTEM AT HIGH/LOW TEMPERATURE)
 - 12 FLAME ARRESTER AT OXIDIZER INLET (ENSURES THE OXIDIZER FLAME CANNOT PROPAGATE THROUGH UPSTREAM PIPING)
 - 17 LOW VACUUM SWITCH (SHUTS DOWN THE SVE SYSTEM AT LOW VACUUM CONDITIONS)
 - 11 FLOW SWITCH (DISABLES HEATING ELEMENT IF THERE IS NO AIR FLOW)
 - 18 LOW LEVEL SWITCH - VLS
 - 16 HIGH PRESSURE RELIEF VALVE -VLS
 - 21 LOWER EXPLOSIVE LIMIT METER

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

Sample Date (mm/dd/yy)	Influent						Midfluent 1						Midfluent 2						Effluent					
	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

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

TPHg analyzed by EPA Method 8015B.

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			Notes				
							TPHg Concentration (µg/L)	Period Removal ² (pounds)	Cumulative Removal (pounds)	Benzene Concentration (µg/L)	Period Removal ² (pounds)	Cumulative Removal (pounds)	MTBE Concentration (µg/L)	Period Removal ² (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	0.080	---	0.008	0.024	---	0.000	0.000					
Agency Limits																				
Total Extracted Volume (gal):						1,600	Pounds Removed:			0.080	0.080	Pounds Removed:			0.024	0.024	Pounds Removed:		0.000	0.000
Average Operational Flow Rate (gpm)³:						2.54	Gallons Removed⁴:			0.013	0.013	Gallons Removed⁴:			0.003	0.003	Gallons Removed⁴:		0.000	0.000
Reporting Period: Since System Startup Through September 29, 2014							Cumulative Results Since Start-up:													
Number of Days during Reporting Period				17 days			Number Days since Startup				17 days									
Gallons of Extracted Ground Water				1,600 gal			Cumulative Total Gallons Extracted				1,600 gal									
Average Flow Rate				2.54 gpm			Average Flow Rate ⁵				2.54 gpm									
Pounds of TPHg Removed				0.080 lbs			Cumulative Pounds of TPHg Removed				0.080 lbs									
TPHg Removal Rate				0.005 lbs/day			TPHg Removal Rate				0.005 lbs/day									
Pounds of Benzene Removed				0.024 lbs			Cumulative Pounds of Benzene Removed				0.024 lbs									
Benzene Removal Rate				0.001 lbs/day			Benzene Removal Rate				0.001 lbs/day									
Pounds of MTBE Removed				0.000 lbs			Cumulative Pounds of MTBE Removed				0.000 lbs									
MTBE Removal Rate				0.000 lbs/day			MTBE Removal Rate				0.000 lbs/day									

Formulas and Assumptions:

- Hour meter readings taken at the end of the site visit
- Mass Removed During the Period = Volume of Water Extracted (gallons) x Concentration (µg/L) x (g/10⁶ µg) x (lb/453.6g) x (3.785 L/gal)
- When concentration of individual parameters were not detected, the concentration was assumed to be half the detection limit for calculation purposes:
Average Flow Rate = (Volume of Extracted Water (gal) / Number of Operational Days) * (60 minutes/hour) * (24 hours/day)
- 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: Soil Vapor Extraction System
Operational Data
Former Chevron Station # 9-5607
5269 Crow Canyon Road, Castro Valley, California**

Date (mm/dd/yy hh:mm)	Operating Time (hours)	Hour Meter (hours)	System Uptime (%)	Period Operation (hours)	Blower Vacuum (inHg)	INF-1 Vacuum (inHg)	INF-1 Vacuum (inH ₂ O)	INF-1 Temperature (°F)	INF-1 Measured Flow (acfm)	INF-1 Calculated Flow (scfm)	INF-2 Pressure ¹ (inH ₂ O)	INF-2 Temperature (°F)	INF-2 Measured Flow ¹ (acfm)	INF-2 Calculated Flow (scfm)	Effluent Flow Rate (scfm)	Dilution Air (% open)	Pre-Oxidizer Temp (°F)	Post-Oxidizer Temp (°F)	INF-2 FID (ppmv)	INF-2 OVA (ppmv)	Effluent PID (ppmv)	Effluent OVA (ppmv)	Mass Removal based on PID (ppd)	Destruction Efficiency (%)	
9/12/14 14:00	0.00	4013.5	0%	0.0	NM	3.00	41	NM	NM	NM	10.0	155	294	259	259	20	747	NM	NM	8000	20.0	NM	NM	663.8	99.8%
9/29/14 14:00	5.50	4019.0	1.35%	5.5	15.0	2.81	38	93	165	143	11	189	255	213	213	20	880	NM	2,600	NM	0.0	NM	NM	177.7	100.0%

Permit Conditions: <300 <300 >600 >98.5%

Abbreviations and Notes:

- mm/dd/yy = month/day/year
- hh:mm = hour : minute
- inHg = inches of mercury
- inH₂O = inches of water
- °F = 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
- 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.

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: Soil Vapor Extraction System
Analytical Data Mass Removal
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				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 Based on Laboratory Data (%)
	TPHg (ppmv)	Benzene (ppmv)	MTBE (ppmv)	VOC (ppmv)	TPHg (ppmv)	Benzene (ppmv)	MTBE (ppmv)	VOC (ppmv)												
9/12/14 14:00	4,200	44 M	38	4,282	46	0.39 M	0.19	46.58	348.5	0.00	3.82	3.31	0.00	0.03	3.23	0.00	0.02	355.28	3.95	98.9%
9/29/14 14:00	--	--	--	--	--	--	--	--	287.1	65.79	3.14	2.73	0.63	0.03	2.66	0.61	0.01	292.71	3.26	98.9%
Permit conditions												<0.017 ppd						>98.5% for >2,000 ppm inlet >97% for >200-<2,000 ppm inlet >90% for <200 ppm inlet		
Total Pounds Removed:									TPHg = 66			Benzene = 0.6			MTBE = 0.61					

Notes:

- TPHg, Benzene, and MTBE analyzed by EPA Method 8015/8020. Vapor samples were collected in 1-liter tedlar bags unless otherwise noted.
- Molecular weight of TPHg assumed to be 86 lb/lb-mole as hexane.
- Molecular weight of Benzene assumed to be 78 lb/lb-mole.
- Molecular weight of MTBE assumed to be 88 lb/lb-mole.
- Molecular weight of VOCs assumed to be 86 lb/lb-mole as hexane.
- Removal/Emission Rate (ppd) = C (ppmv) x Q (scfm) x (1lb-mole/386ft³) x MW (lb/lb-mole) x 60 min/hr x 24 hr/day x 10⁻⁶
C = concentration
Q = flow
MW = molecular weight
- Cumulative TPHg / Benzene / MTBE removed = Previous Total + (Average of Previous and Current Removal Rates * Operation Interval)
- Influent not measured due to water in vapor stream. Individual well samples were collected at a lower vacuum at this time.
- Destruction efficiency requirements not met, agency notified. Agency granted approval to restart system

Abbreviations:

- mm/dd/yy = month/day/year
- hh:mm = hours : minutes
- TPHg = total petroleum hydrocarbons as gasoline
- MTBE = methyl tertiary butyl ether
- VOC = volatile organic compounds
- ppmv = parts per million by volume
- ppd = pounds per day
- = not measured
- lb = pounds
- ft³ = cubic feet
- scfm = standard cubic feet per minute
- INF-2 = post-dilution system influent
- M = Reported value may be biased due to apparent matrix interferences.

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

ATTACHMENT A:

DECEMBER 11, 2013 ACEH LETTER



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

December 11, 2013

Mr. Eric Hetrick
Chevron Corporation
6101 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to:
ehetrick@chevron.com)

Kevin & Julia Hinkley
Kevin Hinkley Service
5269 Crow Canyon Road
Castro Valley, CA 94552

Subject: Approval of RAP Addendum; Fuel Leak Case No. RO0000350 and GeoTracker Global ID T0600100344, Chevron #9-5607, 5269 Crow Canyon Road, Castro Valley, CA 94552

Dear Mr. Hetrick, and Mr. and Ms. Hinkley:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the *Revised Drilling Scope of Work* (RAP Addendum), dated November 7, 2013, and the *Response to November 21, 2013 Technical Comments*, dated December 11, 2013. The documents were prepared and submitted on your behalf by Conestoga-Rovers & Associates (CRA). Thank you for submitting them.

The *Revised Drilling Scope of Work* (RAP Addendum) was prepared to document changes in remedial system presented in the *Remedial Action Plan Implementation Plan*, dated August 2, 2013 in order to address public comments and additional data that has been collected since that time. The *Response to November 21, 2013 Technical Comments*, dated December 11, 2013, was intended to incorporate responses to the November 21, 2013 letter from ACEH, for the Alameda County Building Department.

Based on ACEH staff review of the documents the proposed scope of work, including modifications included in the two documents, is approved. Submittal of a further revised work plan or work plan addendum for this scope of work is not required unless an alternate scope of work outside that described in the work plan or technical comments below is proposed. We request that you perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **RAP Addendum Modifications** – The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking. Please submit a report by the date specified below.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **January 20, 2014** – Groundwater Monitoring Well Work Plan
File to be named: RO350_WP_L_yyyy-mm-dd
- **February 21, 2014** – First DPE / SVE Post Implementation Quarterly Groundwater Monitoring and Well Installation Report; File to be named: RO350_GWM_R_yyyy-mm-dd

Mr. Hetrick, and Mr. and Ms. Hinkley
RO0000350
December 11, 2013, Page 2

- **30 Days After DPE System Start Up** – First DPE System Remedial Progress Report and As-Built Documentation; File to be named: RO350_REM_R_yyyy-mm-dd
- **TBD** – Quarterly Groundwater Monitoring
File to be named: RO350_GWM_R_yyyy-mm-dd
- **TBD** – Monthly DPE System Remedial Progress Reports
File to be named: RO350_GWM_R_yyyy-mm-dd

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.

Should you have any questions, please contact me at (510) 567-6876 or send me an electronic mail message at mark.detterman@acgov.org.

Sincerely,



Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o, ou,
email=mark.detterman@acgov.org, c=US
Date: 2013.12.11 14:26:34 -08'00'

Mark E. Detterman, PG, CEG
Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations and Electronic Report Upload (ftp) Instructions

cc: Brandon Wilken, 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to bwilken@croworld.com)

Judy Gilbert, Conestoga-Rovers & Assoc., 5900 Hollis Street, Suite A, Emeryville, CA 94608;
(sent via electronic mail to: jgilbert@CRAworld.com)

Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

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

ELECTRONIC SUBMITTAL OF REPORTS

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

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

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

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

REQUIREMENTS

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

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

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to deh.loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B:

LABORATORY ANALYTICAL REPORTS

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

September 29, 2014

Project: 95607

Submittal Date: 09/13/2014
Group Number: 1503190
PO Number: 0015157270
Release Number: HETRICK

State of Sample Origin: CA

Client Sample Description

EFF-W-140912 Grab Groundwater
MID-2-W-140912 Grab Groundwater
MID-1-W-140912 Grab Groundwater
INF-W-140912 Grab Groundwater

Lancaster Labs (LL) #

7599096
7599097
7599098
7599099

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

ELECTRONIC Chevron
COPY TO
ELECTRONIC CRA
COPY TO

Attn: CRA EDD

Attn: Judy Gilbert

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Sample Description: **EFF-W-140912 Grab Groundwater**
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # **WW 7599096**
 LL Group # **1503190**
 Account # **10880**

Project Name: **95607**

Collected: 09/12/2014 15:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVEF

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-W-140912 Grab Groundwater**
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # **WW 7599096**
 LL Group # **1503190**
 Account # **10880**

Project Name: **95607**

Collected: 09/12/2014 15:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVEF

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	3	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	1.6 J	0.33	2.0	1
06025	Arsenic	7440-38-2	3.1 J	0.82	4.0	1
06026	Barium	7440-39-3	31.5	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	N.D.	0.10	1.0	1
06033	Copper	7440-50-8	1.3 J	0.50	4.0	1
06035	Lead	7439-92-1	N.D.	0.082	2.0	1
06038	Molybdenum	7439-98-7	2.5	0.25	1.0	1
06039	Nickel	7440-02-0	N.D.	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	1.9	0.22	1.0	1
06049	Zinc	7440-66-6	4.2 J	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-W-140912 Grab Groundwater**
 Facility# **95607 CRAW**
 5269 Crow Canyon-Castro Va T0600100344

LL Sample # **WW 7599096**
 LL Group # **1503190**
 Account # **10880**

Project Name: **95607**

Collected: 09/12/2014 15:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 09/13/2014 08:50

San Ramon CA 94583

Reported: 09/29/2014 12:55

CCVEF

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Wet Chemistry						
08255	Total Cyanide (water)	57-12-5	N.D.	ug/l 5.0	ug/l 10	1
02393	Phenols (water)	n.a.	N.D.	ug/l 15	ug/l 40	1
08079	HEM (oil & grease)	n.a.	N.D.	ug/l 1,400	ug/l 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	N142591AA	09/16/2014 10:28	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N142591AA	09/16/2014 10:28	Linda C Pape	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14258B94A	09/16/2014 16:10	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14258B94A	09/16/2014 16:10	Miranda P Tillinghast	1
06024	Antimony	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06025	Arsenic	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06026	Barium	SW-846 6020A	1	142600639001D	09/18/2014 15:43	Maria A Orrs	1
06027	Beryllium	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06028	Cadmium	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06031	Chromium	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06032	Cobalt	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06033	Copper	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06035	Lead	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06038	Molybdenum	SW-846 6020A	1	142600639001C	09/19/2014 14:35	Maria A Orrs	1
06039	Nickel	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06041	Selenium	SW-846 6020A	1	142600639001B	09/18/2014 15:43	Maria A Orrs	1
06042	Silver	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06045	Thallium	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
06048	Vanadium	SW-846 6020A	1	142600639001A	09/19/2014 09:15	Choon Y Tian	1
06049	Zinc	SW-846 6020A	1	142600639001A	09/18/2014 15:43	Maria A Orrs	1
00259	Mercury	SW-846 7470A	1	142605713003	09/18/2014 11:55	Damary Valentin	1
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	142600639001	09/17/2014 21:30	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	142605713003	09/17/2014 23:10	Annamaria Kuhns	1

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

Sample Description: **EFF-W-140912 Grab Groundwater**
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # **WW 7599096**
 LL Group # **1503190**
 Account # **10880**

Project Name: **95607**

Collected: 09/12/2014 15:00 by DS

ChevronTexaco
 6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVEF

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08255	Total Cyanide (water)	SW-846 9012A	1	14260117101A	09/18/2014 10:44	Drew M Gerhart	1
02393	Phenols (water)	SW-846 9066	2	14261120101A	09/19/2014 12:02	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	14260117101A	09/17/2014 10:30	Nancy J Shoop	1
08123	Phenol Distillation (SW-846)	SW-846 9065	2	14261120101A	09/18/2014 10:45	Nancy J Shoop	1
08079	HEM (oil & grease)	EPA 1664A	1	14260807901A	09/17/2014 18:03	Michelle L Lalli	1

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

Sample Description: MID-2-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599097
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:30 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 09/13/2014 08:50

San Ramon CA 94583

Reported: 09/29/2014 12:55

CCVM2

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: MID-2-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599097
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:30 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVM2

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	3	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

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	N142591AA	09/16/2014 10:51	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N142591AA	09/16/2014 10:51	Linda C Pape	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14258B94A	09/16/2014 17:01	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14258B94A	09/16/2014 17:01	Miranda P Tillinghast	1

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

Sample Description: MID-1-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599098
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:15 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 09/13/2014 08:50

San Ramon CA 94583

Reported: 09/29/2014 12:55

CCVM1

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: MID-1-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599098
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:15 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVM1

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	3	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

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	N142591AA	09/16/2014 11:16	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N142591AA	09/16/2014 11:16	Linda C Pape	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14258B94A	09/16/2014 17:27	Miranda P Tillinghast	1
01146	GC VOA Water Prep	SW-846 5030B	1	14258B94A	09/16/2014 17:27	Miranda P Tillinghast	1

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

Sample Description: INF-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599099
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVIN

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	21 J	12	40	2
10335	t-Amyl methyl ether	994-05-8	N.D.	1	2	2
10335	Benzene	71-43-2	1,800	10	20	20
10335	Bromobenzene	108-86-1	N.D.	2	10	2
10335	Bromochloromethane	74-97-5	N.D.	2	10	2
10335	Bromodichloromethane	75-27-4	N.D.	1	2	2
10335	Bromoform	75-25-2	N.D.	1	8	2
10335	Bromomethane	74-83-9	N.D.	1	2	2
10335	2-Butanone	78-93-3	15 J	6	20	2
10335	t-Butyl alcohol	75-65-0	28 J	10	40	2
10335	n-Butylbenzene	104-51-8	3 J	2	10	2
10335	sec-Butylbenzene	135-98-8	3 J	2	10	2
10335	tert-Butylbenzene	98-06-6	9 J	2	10	2
10335	Carbon Disulfide	75-15-0	N.D.	2	10	2
10335	Carbon Tetrachloride	56-23-5	N.D.	1	2	2
10335	Chlorobenzene	108-90-7	N.D.	1	2	2
10335	Chloroethane	75-00-3	N.D.	1	2	2
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	4	20	2
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.					
10335	Chloroform	67-66-3	N.D.	1	2	2
10335	Chloromethane	74-87-3	N.D.	1	2	2
10335	2-Chlorotoluene	95-49-8	N.D.	2	10	2
10335	4-Chlorotoluene	106-43-4	N.D.	2	10	2
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	4	10	2
10335	Dibromochloromethane	124-48-1	N.D.	1	2	2
10335	1,2-Dibromoethane	106-93-4	N.D.	1	2	2
10335	Dibromomethane	74-95-3	N.D.	1	2	2
10335	1,2-Dichlorobenzene	95-50-1	N.D.	2	10	2
10335	1,3-Dichlorobenzene	541-73-1	N.D.	2	10	2
10335	1,4-Dichlorobenzene	106-46-7	N.D.	2	10	2
10335	Dichlorodifluoromethane	75-71-8	N.D.	1	2	2
10335	1,1-Dichloroethane	75-34-3	N.D.	1	2	2
10335	1,2-Dichloroethane	107-06-2	N.D.	1	2	2
10335	1,1-Dichloroethene	75-35-4	N.D.	1	2	2
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	1	2	2
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	1	2	2
10335	1,2-Dichloropropane	78-87-5	N.D.	1	2	2
10335	1,3-Dichloropropane	142-28-9	N.D.	1	2	2
10335	2,2-Dichloropropane	594-20-7	N.D.	1	2	2
10335	1,1-Dichloropropene	563-58-6	N.D.	2	10	2
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	2	2
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	2	2
10335	Ethanol	64-17-5	N.D.	100	500	2
10335	Ethyl t-butyl ether	637-92-3	N.D.	1	2	2
10335	Ethylbenzene	100-41-4	120	1	2	2
10335	Freon 113	76-13-1	N.D.	4	20	2
10335	Hexachlorobutadiene	87-68-3	N.D.	4	10	2
10335	2-Hexanone	591-78-6	N.D.	6	20	2
10335	di-Isopropyl ether	108-20-3	N.D.	1	2	2

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

Sample Description: INF-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599099
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVIN

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10335	Isopropylbenzene	98-82-8	25	ug/l	ug/l	
10335	p-Isopropyltoluene	99-87-6	N.D.	ug/l	ug/l	
10335	Methyl Tertiary Butyl Ether	1634-04-4	4	ug/l	ug/l	
10335	4-Methyl-2-pentanone	108-10-1	N.D.	ug/l	ug/l	
10335	Methylene Chloride	75-09-2	N.D.	ug/l	ug/l	
10335	Naphthalene	91-20-3	59	ug/l	ug/l	
10335	n-Propylbenzene	103-65-1	42	ug/l	ug/l	
10335	Styrene	100-42-5	N.D.	ug/l	ug/l	
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	ug/l	ug/l	
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	ug/l	ug/l	
10335	Tetrachloroethene	127-18-4	N.D.	ug/l	ug/l	
10335	Toluene	108-88-3	19	ug/l	ug/l	
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	ug/l	ug/l	
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	ug/l	ug/l	
10335	1,1,1-Trichloroethane	71-55-6	N.D.	ug/l	ug/l	
10335	1,1,2-Trichloroethane	79-00-5	N.D.	ug/l	ug/l	
10335	Trichloroethene	79-01-6	N.D.	ug/l	ug/l	
10335	Trichlorofluoromethane	75-69-4	N.D.	ug/l	ug/l	
10335	1,2,3-Trichloropropane	96-18-4	N.D.	ug/l	ug/l	
10335	1,2,4-Trimethylbenzene	95-63-6	15	ug/l	ug/l	
10335	1,3,5-Trimethylbenzene	108-67-8	7 J	ug/l	ug/l	
10335	Vinyl Chloride	75-01-4	N.D.	ug/l	ug/l	
10335	m+p-Xylene	179601-23-1	78	ug/l	ug/l	
10335	o-Xylene	95-47-6	16	ug/l	ug/l	
GC Volatiles SW-846 8015B						
01728	TPH-GRO N. CA water C6-C12	n.a.	6,000	ug/l	ug/l	
Metals SW-846 6020A						
06024	Antimony	7440-36-0	0.48 J	ug/l	ug/l	
06025	Arsenic	7440-38-2	13.1	ug/l	ug/l	
06026	Barium	7440-39-3	192	ug/l	ug/l	
06027	Beryllium	7440-41-7	0.071 J	ug/l	ug/l	
06028	Cadmium	7440-43-9	N.D.	ug/l	ug/l	
06031	Chromium	7440-47-3	6.6	ug/l	ug/l	
06032	Cobalt	7440-48-4	2.1	ug/l	ug/l	
06033	Copper	7440-50-8	4.1	ug/l	ug/l	
06035	Lead	7439-92-1	1.5 J	ug/l	ug/l	
06038	Molybdenum	7439-98-7	2.1	ug/l	ug/l	
06039	Nickel	7440-02-0	15.2	ug/l	ug/l	
06041	Selenium	7782-49-2	N.D.	ug/l	ug/l	
06042	Silver	7440-22-4	N.D.	ug/l	ug/l	
06045	Thallium	7440-28-0	N.D.	ug/l	ug/l	
06048	Vanadium	7440-62-2	6.6	ug/l	ug/l	
06049	Zinc	7440-66-6	26.1 J	ug/l	ug/l	
SW-846 7470A						
00259	Mercury	7439-97-6	N.D.	ug/l	ug/l	

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

Sample Description: INF-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599099
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVIN

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
Wet Chemistry						
08255	Total Cyanide (water)	57-12-5	N.D.	ug/l 5.0	ug/l 10	1
02393	Phenols (water)	n.a.	34 J	ug/l 15	ug/l 40	1
08079	HEM (oil & grease)	n.a.	N.D.	ug/l 1,400	ug/l 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	N142591AA	09/16/2014 11:40	Linda C Pape	2
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	N142591AA	09/16/2014 12:04	Linda C Pape	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N142591AA	09/16/2014 11:40	Linda C Pape	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	N142591AA	09/16/2014 12:04	Linda C Pape	20
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	14258B94A	09/16/2014 19:09	Miranda P Tillinghast	5
01146	GC VOA Water Prep	SW-846 5030B	1	14258B94A	09/16/2014 19:09	Miranda P Tillinghast	5
06024	Antimony	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06025	Arsenic	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06026	Barium	SW-846 6020A	1	142600639001D	09/18/2014 16:01	Maria A Orrs	1
06027	Beryllium	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06028	Cadmium	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06031	Chromium	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06032	Cobalt	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06033	Copper	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06035	Lead	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06038	Molybdenum	SW-846 6020A	1	142600639001C	09/19/2014 14:42	Maria A Orrs	1
06039	Nickel	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06041	Selenium	SW-846 6020A	1	142600639001B	09/18/2014 16:01	Maria A Orrs	1
06042	Silver	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06045	Thallium	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06048	Vanadium	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
06049	Zinc	SW-846 6020A	1	142600639001A	09/18/2014 16:01	Maria A Orrs	1
00259	Mercury	SW-846 7470A	1	142605713003	09/18/2014 11:58	Damary Valentin	1

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

Sample Description: INF-W-140912 Grab Groundwater
Facility# 95607 CRAW
5269 Crow Canyon-Castro Va T0600100344

LL Sample # WW 7599099
LL Group # 1503190
Account # 10880

Project Name: 95607

Collected: 09/12/2014 14:00 by DS

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 09/13/2014 08:50

Reported: 09/29/2014 12:55

CCVIN

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10639	ICP/MS SW846 (IV) Water Digest	SW-846 3010A modified	1	142600639001	09/17/2014 21:30	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	142605713003	09/17/2014 23:10	Annamaria Kuhns	1
08255	Total Cyanide (water)	SW-846 9012A	1	14260117101A	09/18/2014 10:46	Drew M Gerhart	1
02393	Phenols (water)	SW-846 9066	2	14261120101A	09/19/2014 12:05	Drew M Gerhart	1
08256	Cyanide Water Distillation	SW-846 9012A	1	14260117101A	09/17/2014 10:30	Nancy J Shoop	1
08123	Phenol Distillation (SW-846)	SW-846 9065	2	14261120101A	09/18/2014 10:45	Nancy J Shoop	1
08079	HEM (oil & grease)	EPA 1664A	1	14260807901A	09/17/2014 18:03	Michelle L Lalli	1

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

Quality Control Summary

Client Name: ChevronTexaco
Reported: 09/29/14 at 12:55 PM

Group Number: 1503190

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

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: N142591AA	Sample number(s): 7599096-7599099								
Acetone	N.D.	6.	20	ug/l	87		55-129		
t-Amyl methyl ether	N.D.	0.5	1	ug/l	90		75-120		
Benzene	N.D.	0.5	1	ug/l	95		78-120		
Bromobenzene	N.D.	1.	5	ug/l	94		80-120		
Bromochloromethane	N.D.	1.	5	ug/l	100		80-121		
Bromodichloromethane	N.D.	0.5	1	ug/l	86		73-120		
Bromoform	N.D.	0.5	4	ug/l	82		61-120		
Bromomethane	N.D.	0.5	1	ug/l	87		53-130		
2-Butanone	N.D.	3.	10	ug/l	91		54-133		
t-Butyl alcohol	N.D.	5.	20	ug/l	98		75-120		
n-Butylbenzene	N.D.	1.	5	ug/l	89		68-120		
sec-Butylbenzene	N.D.	1.	5	ug/l	95		75-120		
tert-Butylbenzene	N.D.	1.	5	ug/l	97		80-120		
Carbon Disulfide	N.D.	1.	5	ug/l	74		58-126		
Carbon Tetrachloride	N.D.	0.5	1	ug/l	93		74-130		
Chlorobenzene	N.D.	0.5	1	ug/l	98		80-120		
Chloroethane	N.D.	0.5	1	ug/l	84		56-120		
2-Chloroethyl Vinyl Ether	N.D.	2.	10	ug/l	90		62-128		
Chloroform	N.D.	0.5	1	ug/l	95		80-122		
Chloromethane	N.D.	0.5	1	ug/l	88		63-120		
2-Chlorotoluene	N.D.	1.	5	ug/l	97		80-120		
4-Chlorotoluene	N.D.	1.	5	ug/l	96		80-120		
1,2-Dibromo-3-chloropropane	N.D.	2.	5	ug/l	79		56-120		
Dibromochloromethane	N.D.	0.5	1	ug/l	88		72-120		
1,2-Dibromoethane	N.D.	0.5	1	ug/l	95		80-120		
Dibromomethane	N.D.	0.5	1	ug/l	92		80-120		
1,2-Dichlorobenzene	N.D.	1.	5	ug/l	94		80-120		
1,3-Dichlorobenzene	N.D.	1.	5	ug/l	93		80-120		
1,4-Dichlorobenzene	N.D.	1.	5	ug/l	93		80-120		
Dichlorodifluoromethane	N.D.	0.5	1	ug/l	91		55-127		
1,1-Dichloroethane	N.D.	0.5	1	ug/l	92		80-120		
1,2-Dichloroethane	N.D.	0.5	1	ug/l	99		65-135		
1,1-Dichloroethene	N.D.	0.5	1	ug/l	89		76-124		
cis-1,2-Dichloroethene	N.D.	0.5	1	ug/l	96		80-120		
trans-1,2-Dichloroethene	N.D.	0.5	1	ug/l	94		80-120		
1,2-Dichloropropane	N.D.	0.5	1	ug/l	94		80-120		
1,3-Dichloropropane	N.D.	0.5	1	ug/l	93		80-120		
2,2-Dichloropropane	N.D.	0.5	1	ug/l	86		67-124		
1,1-Dichloropropene	N.D.	1.	5	ug/l	99		80-126		
cis-1,3-Dichloropropene	N.D.	0.5	1	ug/l	91		80-120		
trans-1,3-Dichloropropene	N.D.	0.5	1	ug/l	88		76-120		
Ethanol	N.D.	50.	250	ug/l	97		58-139		
Ethyl t-butyl ether	N.D.	0.5	1	ug/l	89		69-120		

*- 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: 1503190

Reported: 09/29/14 at 12:55 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Ethylbenzene	N.D.	0.5	1	ug/l	93		79-120		
Freon 113	N.D.	2.	10	ug/l	88		67-127		
Hexachlorobutadiene	N.D.	2.	5	ug/l	104		51-125		
2-Hexanone	N.D.	3.	10	ug/l	87		57-127		
di-Isopropyl ether	N.D.	0.5	1	ug/l	93		61-132		
Isopropylbenzene	N.D.	1.	5	ug/l	96		80-120		
p-Isopropyltoluene	N.D.	1.	5	ug/l	92		76-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	90		75-120		
4-Methyl-2-pentanone	N.D.	3.	10	ug/l	89		51-124		
Methylene Chloride	N.D.	2.	3	ug/l	93		80-120		
Naphthalene	N.D.	1.	5	ug/l	86		47-126		
n-Propylbenzene	N.D.	1.	5	ug/l	95		80-120		
Styrene	N.D.	1.	5	ug/l	89		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.5	1	ug/l	92		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.5	1	ug/l	87		70-120		
Tetrachloroethene	N.D.	0.5	1	ug/l	102		80-120		
Toluene	N.D.	0.5	1	ug/l	94		80-120		
1,2,3-Trichlorobenzene	N.D.	1.	5	ug/l	95		68-123		
1,2,4-Trichlorobenzene	N.D.	1.	5	ug/l	98		73-120		
1,1,1-Trichloroethane	N.D.	0.5	1	ug/l	84		66-126		
1,1,2-Trichloroethane	N.D.	0.5	1	ug/l	93		80-120		
Trichloroethene	N.D.	0.5	1	ug/l	97		80-120		
Trichlorofluoromethane	N.D.	0.5	1	ug/l	101		58-135		
1,2,3-Trichloropropane	N.D.	1.	5	ug/l	94		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	5	ug/l	93		80-120		
1,3,5-Trimethylbenzene	N.D.	1.	5	ug/l	94		80-120		
Vinyl Chloride	N.D.	0.5	1	ug/l	93		63-120		
m+p-Xylene	N.D.	0.5	1	ug/l	93		80-120		
o-Xylene	N.D.	0.5	1	ug/l	91		80-120		

Batch number: 14258B94A Sample number(s): 7599096-7599099
 TPH-GRO N. CA water C6-C12 N.D. 50. 100 ug/l 125 120 80-139 4 30

Batch number: 142600639001A Sample number(s): 7599096,7599099

Antimony	N.D.	0.33	2.0	ug/l	92		80-120		
Arsenic	N.D.	0.82	4.0	ug/l	94		86-120		
Beryllium	N.D.	0.045	1.0	ug/l	105		90-113		
Cadmium	N.D.	0.17	1.0	ug/l	94		90-114		
Chromium	N.D.	0.50	4.0	ug/l	102		90-113		
Cobalt	N.D.	0.10	1.0	ug/l	95		87-113		
Copper	N.D.	0.50	4.0	ug/l	99		90-113		
Lead	N.D.	0.082	2.0	ug/l	103		90-110		
Nickel	N.D.	0.79	4.0	ug/l	98		90-113		
Silver	N.D.	0.13	1.0	ug/l	98		90-115		
Thallium	N.D.	0.15	1.0	ug/l	107		90-115		
Vanadium	N.D.	0.22	1.0	ug/l	102		89-116		
Zinc	N.D.	2.4	30.0	ug/l	102		90-119		

Batch number: 142600639001B Sample number(s): 7599096,7599099
 Selenium N.D. 0.50 4.0 ug/l 102 90-114

Batch number: 142600639001C Sample number(s): 7599096,7599099
 Molybdenum N.D. 0.25 1.0 ug/l 104 89-115

Batch number: 142600639001D Sample number(s): 7599096,7599099
 Barium N.D. 0.58 4.0 ug/l 97 88-113

*- 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: 1503190

Reported: 09/29/14 at 12:55 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 142605713003 Mercury	Sample number(s): 7599096,7599099 N.D.	0.060	0.20	ug/l	86		80-120		
Batch number: 14260117101A Total Cyanide (water)	Sample number(s): 7599096,7599099 N.D.	5.0	10	ug/l	97		90-110		
Batch number: 14261120101A Phenols (water)	Sample number(s): 7599096,7599099 N.D.	15.	40	ug/l	95		82-109		
Batch number: 14260807901A HEM (oil & grease)	Sample number(s): 7599096,7599099 N.D.	1,400.	5,000	ug/l	96	93	78-114	3	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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: N142591AA	Sample number(s): 7599096-7599099 UNSPK: P589332								
Acetone	78	76	35-144	4	30				
t-Amyl methyl ether	93	93	65-117	0	30				
Benzene	100	100	72-134	0	30				
Bromobenzene	100	99	82-115	1	30				
Bromochloromethane	102	105	76-134	2	30				
Bromodichloromethane	90	89	73-125	1	30				
Bromoform	85	85	48-118	1	30				
Bromomethane	93	96	47-129	4	30				
2-Butanone	80	78	44-135	3	30				
t-Butyl alcohol	88	91	67-119	4	30				
n-Butylbenzene	100	101	74-134	1	30				
sec-Butylbenzene	107	107	74-137	0	30				
tert-Butylbenzene	105	107	81-121	1	30				
Carbon Disulfide	83	84	53-149	1	30				
Carbon Tetrachloride	105	106	75-148	1	30				
Chlorobenzene	104	103	87-124	0	30				
Chloroethane	90	94	55-130	4	30				
2-Chloroethyl Vinyl Ether	92	93	10-151	0	30				
Chloroform	103	102	81-134	1	30				
Chloromethane	96	99	61-125	3	30				
2-Chlorotoluene	105	106	82-118	1	30				
4-Chlorotoluene	105	105	84-122	0	30				
1,2-Dibromo-3-chloropropane	82	83	50-123	1	30				
Dibromochloromethane	92	93	74-116	0	30				
1,2-Dibromoethane	96	96	77-116	0	30				
Dibromomethane	96	96	83-119	0	30				
1,2-Dichlorobenzene	98	99	84-119	0	30				
1,3-Dichlorobenzene	98	98	86-121	0	30				
1,4-Dichlorobenzene	99	99	85-121	0	30				
Dichlorodifluoromethane	106	108	58-156	2	30				
1,1-Dichloroethane	100	99	84-129	2	30				
1,2-Dichloroethane	103	102	63-142	1	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
Reported: 09/29/14 at 12:55 PM

Group Number: 1503190

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
1,1-Dichloroethene	100	102	79-137	2	30				
cis-1,2-Dichloroethene	102	103	80-141	0	30				
trans-1,2-Dichloroethene	104	105	86-131	1	30				
1,2-Dichloropropane	100	100	83-124	0	30				
1,3-Dichloropropane	96	94	81-120	2	30				
2,2-Dichloropropane	95	96	69-135	1	30				
1,1-Dichloropropene	111	111	86-137	0	30				
cis-1,3-Dichloropropene	95	95	70-116	0	30				
trans-1,3-Dichloropropene	90	90	74-119	0	30				
Ethanol	85	90	53-146	6	30				
Ethyl t-butyl ether	93	93	74-122	0	30				
Ethylbenzene	102	102	71-134	0	30				
Freon 113	104	105	89-148	0	30				
Hexachlorobutadiene	124	123	56-134	0	30				
2-Hexanone	83	82	38-131	1	30				
di-Isopropyl ether	97	97	70-129	0	30				
Isopropylbenzene	110	109	75-128	1	30				
p-Isopropyltoluene	103	103	76-123	1	30				
Methyl Tertiary Butyl Ether	93	93	72-126	0	30				
4-Methyl-2-pentanone	91	89	45-128	1	30				
Methylene Chloride	98	98	78-133	0	30				
Naphthalene	96	98	52-125	1	30				
n-Propylbenzene	107	107	74-134	1	30				
Styrene	101	102	78-125	0	30				
1,1,1,2-Tetrachloroethane	99	97	80-123	2	30				
1,1,2,2-Tetrachloroethane	95	94	72-128	1	30				
Tetrachloroethene	111 (2)	113 (2)	80-128	0	30				
Toluene	101	105	80-125	1	30				
1,2,3-Trichlorobenzene	103	105	62-133	2	30				
1,2,4-Trichlorobenzene	106	107	56-137	1	30				
1,1,1-Trichloroethane	93	95	69-140	2	30				
1,1,2-Trichloroethane	94	92	71-141	2	30				
Trichloroethene	101	100	88-133	0	30				
Trichlorofluoromethane	117	121	63-163	3	30				
1,2,3-Trichloropropane	87	85	76-118	1	30				
1,2,4-Trimethylbenzene	99	99	72-130	0	30				
1,3,5-Trimethylbenzene	101	101	65-132	0	30				
Vinyl Chloride	105	110	66-133	4	30				
m+p-Xylene	104	103	79-125	1	30				
o-Xylene	102	102	79-125	0	30				

Batch number: 142600639001A

Sample number(s): 7599096, 7599099 UNSPK: 7599096 BKG: 7599096

Element	7599096	7599099	UNSPK	BKG	7599096	7599099	RPD	Max			
Antimony	96	100	75-125	3	20	1.6	J	1.3	J	21* (1)	20
Arsenic	103	113	75-125	8	20	3.1	J	3.0	J	5 (1)	20
Beryllium	103	106	83-123	3	20	N.D.		N.D.		0 (1)	20
Cadmium	95	99	84-118	4	20	N.D.		N.D.		0 (1)	20
Chromium	101	101	83-116	1	20	N.D.		N.D.		0 (1)	20
Cobalt	96	100	86-114	4	20	N.D.		N.D.		0 (1)	20
Copper	99	103	84-116	4	20	1.3	J	1.2	J	6 (1)	20
Lead	106	108	89-120	2	20	N.D.		N.D.		0 (1)	20
Nickel	97	103	85-117	6	20	N.D.		N.D.		0 (1)	20
Silver	96	101	84-116	5	20	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
Reported: 09/29/14 at 12:55 PM

Group Number: 1503190

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u>	<u>RPD</u> <u>Max</u>
Thallium	109	107	90-125	2	20	N.D.	N.D.	0 (1)		20
Vanadium	103	106	87-117	2	20	1.9	1.9	1 (1)		20
Zinc	96	99	75-125	3	20	4.2	3.7	13 (1)		20
Batch number: 142600639001B	Sample number(s): 7599096,7599099 UNSPK: 7599096 BKG: 7599096									
Selenium	105	107	75-125	2	20	N.D.	N.D.	0 (1)		20
Batch number: 142600639001C	Sample number(s): 7599096,7599099 UNSPK: 7599096 BKG: 7599096									
Molybdenum	105	107	87-115	2	20	2.5	2.8	12 (1)		20
Batch number: 142600639001D	Sample number(s): 7599096,7599099 UNSPK: 7599096 BKG: 7599096									
Barium	106	113	75-125	4	20	31.5	31.3	0		20
Batch number: 142605713003	Sample number(s): 7599096,7599099 UNSPK: P601198 BKG: P601198									
Mercury	858 (2)	6951 (2)	80-120	18	20	299	305	2		20
Batch number: 14260117101A	Sample number(s): 7599096,7599099 UNSPK: P595993 BKG: P595993									
Total Cyanide (water)	101		43-137			N.D.	N.D.	0 (1)		20
Batch number: 14261120101A	Sample number(s): 7599096,7599099 UNSPK: 7599096									
Phenols (water)	95	95	50-133	0	8					
Batch number: 14260807901A	Sample number(s): 7599096,7599099 UNSPK: P601828									
HEM (oil & grease)	94		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: VOCs- 5ml Water by 8260B
Batch number: N142591AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7599096	101	102	98	93
7599097	101	101	98	93
7599098	102	102	98	93
7599099	99	113	98	95
Blank	101	102	98	94
LCS	102	101	100	97
MS	103	101	99	98
MSD	103	101	99	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 14258B94A

	Trifluorotoluene-F
7599096	87
7599097	98

*- 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 SummaryClient Name: ChevronTexaco
Reported: 09/29/14 at 12:55 PM

Group Number: 1503190

Surrogate Quality Control

7599098	91
7599099	99
Blank	87
LCS	92
LCSD	94

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



**Lancaster Laboratories
Environmental**

Acct. # 10880 Group # 1503190 Sample # 7599096-99

Client: Chevron EMC				Matrix			Analyses Requested										For Lab Use Only								
Project Name/#: <u>Castro Valley</u>		Site ID #: <u>95607</u>		<input type="checkbox"/> Sediment	<input checked="" type="checkbox"/> Ground	<input type="checkbox"/> Surface	Total # of Containers	Preservation Codes										SF #: _____							
Project Manager: <u>Judy Gilbert</u>		P.O. #: <u>Direct Bill To Chevron</u>		<input type="checkbox"/> Potable	<input type="checkbox"/> NPDES																			SCR #: _____	
Sampler: <u>Darrell Smolke</u>		PWSID #:		<input type="checkbox"/> Water																				Preservation Codes	
Phone #: <u>925 334-8617</u>		Quote #:		<input type="checkbox"/> Other:																				H = HCl	T = Thiosulfate
State where sample(s) were collected: <u>CA</u> <u>GWE Effluent</u>																								N = HNO ₃	B = NaOH
Sample Identification		Collection		<input type="checkbox"/> Soil																				S = H ₂ SO ₄	P = H ₃ PO ₄
		Date	Time	Grab	Composite																				O = Other
EFF		<u>9/12/14</u>	<u>300</u>	<u>X</u>				<u>11</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>							Remarks	
MID-2		<u>9/12/14</u>	<u>230</u>	<u>X</u>				<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>														
MID-1		<u>9/12/14</u>	<u>215</u>	<u>X</u>				<u>6</u>	<u>X</u>	<u>X</u>	<u>X</u>														
INF		<u>9/12/14</u>	<u>200</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>									
Turnaround Time Requested (TAT) (please check): Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>				Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
(Rush TAT is subject to laboratory approval and surcharges.)				<u>Darrell Smolke</u>			<u>9/12/14</u>	<u>300</u>																	
Date results are needed: <u>ASAP</u>				Relinquished by: _____			Date	Time				Received by: _____			Date	Time									
Rush results requested by (please check): E-Mail <input checked="" type="checkbox"/> Phone <input type="checkbox"/>				Relinquished by: _____			Date	Time				Received by: _____			Date	Time									
E-mail Address: <u>jgilbert@croworld.com</u> <u>dsmolko@croworld.com</u>				Relinquished by: _____			Date	Time				Received by: _____			Date	Time									
Phone: <u>510 420-3314</u> <u>925 334-8617</u>				Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
Data Package Options (please check if required)				Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
Type I (Validation/non-CLP) <input type="checkbox"/>		MA MCP <input type="checkbox"/>		Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
Type III (Reduced non-CLP) <input type="checkbox"/>		CT RCP <input type="checkbox"/>		Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
Type IV (CLP SOW) <input type="checkbox"/>		TX TRRP-13 <input type="checkbox"/>		Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
Type VI (Raw Data Only) <input type="checkbox"/>				Relinquished by: _____			Date	Time	Received by: _____			Date	Time												
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Relinquished by Commercial Carrier: _____			Temperature upon receipt <u>1.4</u> °C																		
If yes, format: <u>Zip File</u>				UPS <input checked="" type="checkbox"/> FedEx _____ Other _____																					

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 \geq 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 \geq 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.

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

9/19/2014

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

Project Name: Castro Valley
Project #: 311950 2014.7
Workorder #: 1409199B

Dear Ms. Judy Gilbert

The following report includes the data for the above referenced project for sample(s) received on 9/13/2014 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

WORK ORDER #: 1409199B

Work Order Summary

CLIENT:	Ms. Judy Gilbert Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagara Falls, NY 14304
PHONE:	510-420-3314	P.O. #	311950 2014.7
FAX:	510-420-9170	PROJECT #	311950 2014.7 Castro Valley
DATE RECEIVED:	09/13/2014	CONTACT:	Kyle Vagadori
DATE COMPLETED:	09/19/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	EFF	Modified TO-3	Tedlar Bag	Tedlar Bag
02A	INF-2	Modified TO-3	Tedlar Bag	Tedlar Bag
03A	Lab Blank	Modified TO-3	NA	NA
04A	LCS	Modified TO-3	NA	NA
04B	LCS	Modified TO-3	NA	NA
04BB	LCSD	Modified TO-3	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 09/19/14

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-13-6, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

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# 1409199B

Two 1 Liter Tedlar Bag samples were received on September 13, 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.

<i>Requirement</i>	<i>TO-3</i>	<i>ATL Modifications</i>
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

According to the Chain of Custody (COC), samples EFF and INF-2 were collected on 9/12/14. However, the date on the sample tag reflects a collection date of 9/11/14. Therefore the date on the sample tag was used to calculate the sample holding time.

Analytical Notes

Samples EFF and INF-2 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.

The recovery of surrogate Fluorobenzene in samples EFF and INF-2 was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

The detection of m,p-xylenes may have been masked in samples INF-2 due to complex hydrocarbon interference.

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

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

Client Sample ID: EFF

Lab ID#: 1409199B-01A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0064	0.39 M	1.2 M
Toluene	0.0020	0.0076	0.22	0.84
Ethyl Benzene	0.0020	0.0088	0.12	0.52
Total Xylenes	0.0040	0.018	0.53	2.3
Methyl tert-butyl ether	0.0020	0.0073	0.19	0.68
TPH (Gasoline Range)	0.050	0.21	46	190

Client Sample ID: INF-2

Lab ID#: 1409199B-02A

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.20	0.64	44 M	140 M
Toluene	0.20	0.76	8.3	31
Ethyl Benzene	0.20	0.88	1.3	5.6
Total Xylenes	0.40	1.8	0.89 M	3.8 M
Methyl tert-butyl ether	0.20	0.73	38	140
TPH (Gasoline Range)	5.0	21	4200	17000

Client Sample ID: EFF

Lab ID#: 1409199B-01A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091806	Date of Collection:	9/11/14 4:30:00 AM
Dil. Factor:	2.02	Date of Analysis:	9/18/14 03:44 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.0020	0.0064	0.39 M	1.2 M
Toluene	0.0020	0.0076	0.22	0.84
Ethyl Benzene	0.0020	0.0088	0.12	0.52
Total Xylenes	0.0040	0.018	0.53	2.3
Methyl tert-butyl ether	0.0020	0.0073	0.19	0.68
TPH (Gasoline Range)	0.050	0.21	46	190

M = Reported value may be biased due to apparent matrix interferences.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	257 Q	75-150
Fluorobenzene (PID)	206 Q	75-125



Client Sample ID: INF-2

Lab ID#: 1409199B-02A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091807	Date of Collection:	9/11/14 4:20:00 AM
Dil. Factor:	202	Date of Analysis:	9/18/14 04:40 PM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
Benzene	0.20	0.64	44 M	140 M
Toluene	0.20	0.76	8.3	31
Ethyl Benzene	0.20	0.88	1.3	5.6
Total Xylenes	0.40	1.8	0.89 M	3.8 M
Methyl tert-butyl ether	0.20	0.73	38	140
TPH (Gasoline Range)	5.0	21	4200	17000

M = Reported value may be biased due to apparent matrix interferences.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	246 Q	75-150
Fluorobenzene (PID)	196 Q	75-125

Client Sample ID: Lab Blank

Lab ID#: 1409199B-03A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/14 01:35 PM

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	0.0020	0.0087	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)	92	75-150
Fluorobenzene (PID)	86	75-125



Air Toxics

Client Sample ID: LCS

Lab ID#: 1409199B-04A

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091809b	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/14 09:16 PM

Compound	%Recovery	Method Limits
Benzene	87	75-125
Toluene	86	75-125
Ethyl Benzene	91	75-125
Total Xylenes	95	75-125
Methyl tert-butyl ether	89	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (PID)	92	75-125



Air Toxics

Client Sample ID: LCS

Lab ID#: 1409199B-04B

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/18/14 11:43 AM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	97	75-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1409199B-04BB

MODIFIED EPA METHOD TO-3 GC/PID/FID

File Name:	d091808	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/18/14 07:53 PM

Compound	%Recovery	Method Limits
TPH (Gasoline Range)	81	75-125

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	98	75-150