



GETTLER-RYAN INC.

20221

JUL 25 2002

TRANSMITTAL

July 8, 2002
G-R #386456

TO: Mr. James Brownell
Delta Environmental Consultants, Inc.
3164 Gold Camp Drive, Suite 200
Rancho Cordova, California 95670

CC: Ms. Karen Streich
Chevron Products Company
P.O. Box 6004
San Ramon, California 94583

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

RE: **Chevron Service Station**
#9-0338
5500 Telegraph Avenue
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 25, 2002	Groundwater Monitoring and Sampling Report Second Quarter - Event of May 13, 2002

COMMENTS:

This report is being sent for your review. Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to **July 22, 2002**, at which time the final report will be distributed to the following:

cc: Mr. Larry Seto, Alameda County Health Care Services, Dept. of Environmental Health, 1153 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577
Mr. Greg Gurss, Gettler-Ryan Inc., 3140 Gold Camp Drive, Suite 170, Rancho Cordova, CA 95670

Enclosures

trans/9-0338-ks



GETTLER-RYAN INC.

June 25, 2002
G-R Job #386456

Ms. Karen Streich
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

RE: Second Quarter Event of May 13, 2002
Groundwater Monitoring & Sampling Report
Chevron Service Station #9-0338
5500 Telegraph Avenue
Oakland, California

Dear Ms. Streich:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached.

Please call if you have any questions or comments regarding this report. Thank you.

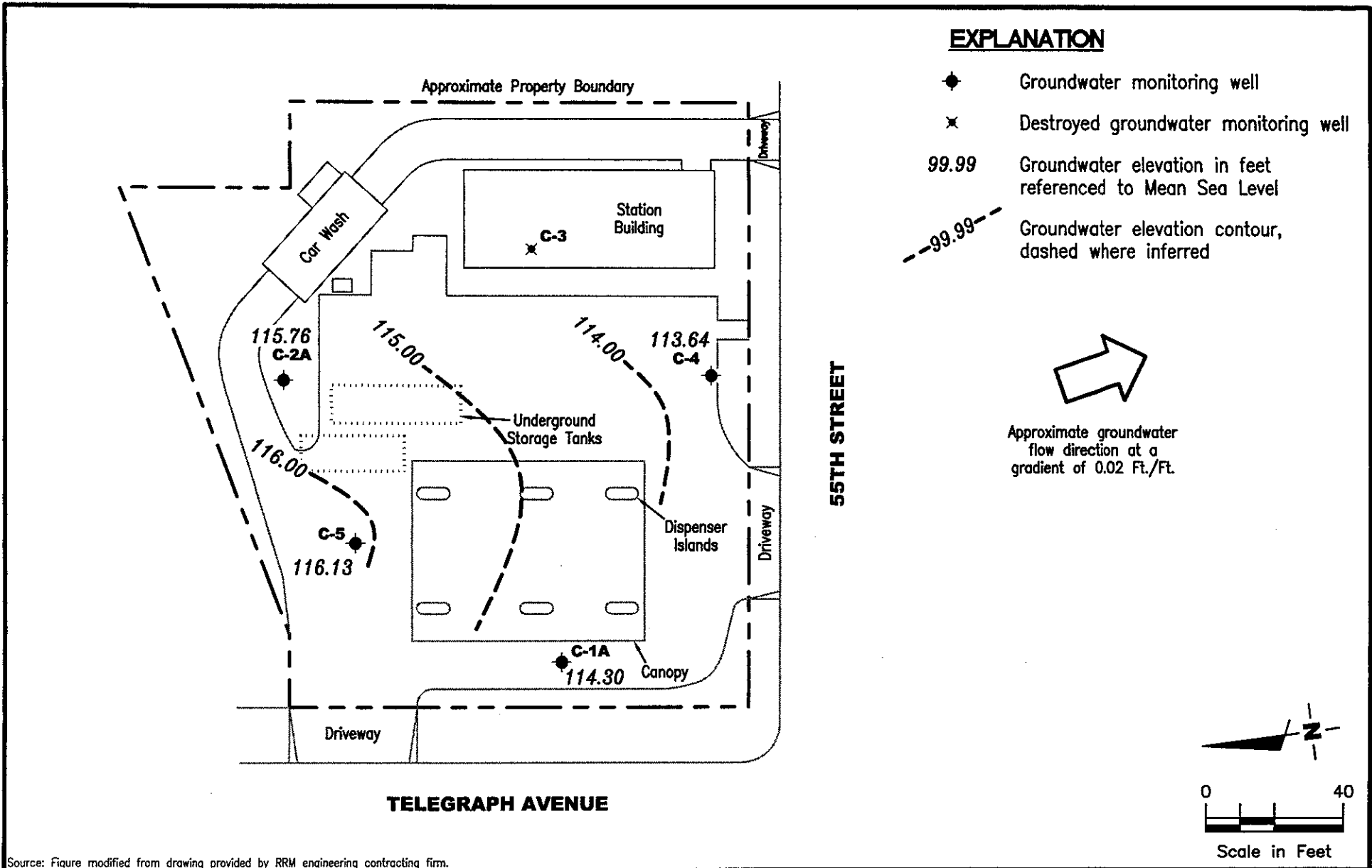
Sincerely,

Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734



- Figure 1: Potentiometric Map
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Groundwater Analytical Results - Oxygenate Compounds
- Table 3: Groundwater Analytical Results
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by RRM engineering contracting firm.

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
 Chevron Service Station #9-0338
 5500 Telegraph Avenue
 Oakland, California

FIGURE

1

PROJECT NUMBER
 386456

REVIEWED BY

DATE
 May 13, 2002

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-0338
5500 Telegraph Avenue
Oakland, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-1A									
05/27/99	123.27	115.93	7.34	9,100	40	25	560	1,900	35
09/02/99	123.27	115.72	7.55	9,700	24	18.4	626	754	66
10/27/99	123.27	115.84	7.43	4,740	<10	<10	276	270	<100/66.6 ²
02/11/00	123.27	115.27	8.00	5,100	17.5	<10	182	333	<50
05/10/00	123.27	116.65	6.62	11,000 ¹	110	170	480	980	<500
07/27/00	123.27	115.14	8.13	6,200 ¹	<50	<50	540	150	<250
11/21/00	123.27	115.60	7.67	6,500 ¹	19	<10	450	360	<50
02/05/01	123.27	115.91	7.36	5,270	1.43	1.04	326	269	15.0
05/07/01	123.27	115.90	7.37	3,000 ¹	37	27	520	490	63
08/06/01	123.27	115.15	8.12	3,300 ¹	3.1	3.8	160	100	47
11/12/01	123.27	116.42	6.85	5,100	1.9	<2.0	230	230	3.1
02/11/02	123.27	114.99	8.28	820	1.3	<0.50	21	7.7	5.7/4 ³
05/13/02	123.27	114.30	8.97	1,800	<1.0	<0.50	26	8.6	7.5
C-2A									
05/27/99	125.89	119.53	6.36	<50	<0.5	<0.5	<0.5	<0.5	44
09/02/99	125.89	117.04	8.85	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/27/99	125.89	116.65	9.24	<50	<0.5	<0.5	<0.5	<0.5	8.75/7.77 ²
02/11/00	125.89	117.64	8.25	<50	<0.5	<0.5	<0.5	<0.5	17.8
05/10/00	125.89	117.46	8.43	<50	<0.50	<0.50	<0.50	<0.50	3.2
07/27/00	125.89	116.34	9.55	<50	<0.50	<0.50	<0.50	<0.50	20
11/21/00	125.89	116.39	9.50	<50	<0.50	<0.50	<0.50	<0.50	<50
02/05/01	125.89	116.50	9.39	<50.0	<0.500	<0.500	<0.500	<0.500	3.36
05/07/01	125.89	116.29	9.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5
08/06/01	125.89	115.72	10.17	<50	<0.50	0.59	<0.50	1.4	12
11/12/01	125.89	115.28	10.61	<50	<0.50	<0.50	<0.50	<1.5	3.4
02/11/02	125.89	117.31	8.58	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 ³
05/13/02	125.89	115.76	10.13	1,100	17	83	21	99	29

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-0338
5500 Telegraph Avenue
Oakland, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
C-4									
05/27/99	125.40	115.34	10.06	<50	<0.5	<0.5	<0.5	<0.5	44
09/02/99	125.40	114.89	10.51	<50	<0.5	<0.5	<0.5	<0.5	3.1
10/27/99	125.40	115.03	10.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0/<2.0 ²
02/11/00	125.40	114.48	10.92	<50	<0.5	<0.5	<0.5	<0.5	2.79
05/10/00	125.40	116.28	9.12	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/27/00	125.40	113.50	11.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5
11/21/00	125.40	113.76	11.64	<50	<0.50	<0.50	<0.50	<0.50	<2.5
02/05/01	125.40	115.21	10.19	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
05/07/01	125.40	114.45	10.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5
08/06/01	125.40	113.75	11.65	<50	<0.50	0.52	<0.50	1.1	3.2
11/12/01	125.40	113.69	11.71	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/02 ⁴	125.40	114.45	10.95	<50	<0.50	<0.50	<0.50	<1.5	72/62 ³
05/13/02	125.40	113.64	11.76	<50	<0.50	<0.50	<0.50	<1.5	21
C-5									
05/27/99	124.15	117.54	6.61	2,800	350	73	32	280	2,200/2,500 ²
09/02/99	124.15	116.27	7.88	570	9.0	<2.5	<2.5	<2.5	890
10/27/99	124.15	116.90	7.25	543	4.22	<0.5	3.28	<0.5	845/1,080 ²
02/11/00	124.15	117.41	6.74	488	0.56	<0.5	1.45	<0.5	565
05/10/00	124.15	118.36	5.79	140 ¹	3.6	1.2	0.53	2.0	380
07/27/00	124.15	116.92	7.23	260 ¹	1.4	1.2	0.93	2.8	460
11/21/00	124.15	117.47	6.68	130 ¹	0.74	0.73	<0.50	<0.50	350
02/05/01	124.15	117.74	6.41	111	<1.00	<1.00	<1.00	<1.00	197
05/07/01	124.15	117.91	6.24	100 ¹	2.1	1.0	<0.50	0.80	210
08/06/01	124.15	116.74	7.41	94 ¹	0.84	1.2	0.54	1.5	360
11/12/01	124.15	116.82	7.33	58	<0.50	<0.50	<0.50	<1.5	280
02/11/02	124.15	117.90	6.25	<50	<0.50	<0.50	<0.50	<1.5	150/140 ³
05/13/02	124.15	116.13	8.02	79	7.7	1.2	2.6	5.5	180

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-0338
5500 Telegraph Avenue
Oakland, California

WELL ID/ DATE	TOC (ft.)	GWE (msl)	DTW (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TRIP BLANK									
05/27/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
09/02/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
10/27/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
02/11/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/10/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/27/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
11/21/00	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
02/05/01	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50
05/07/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
08/06/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA									
11/12/01	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
05/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5

Table 1
Groundwater Monitoring Data and Analytical Results
Chevron Service Station #9-0338
5500 Telegraph Avenue
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to May 10, 2000, were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Mean sea level

DTW = Depth to Water

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

QA = Quality Assurance

- ¹ Laboratory report indicates gasoline C6-C12.
- ² Confirmation run.
- ³ MTBE by EPA Method 8260.
- ⁴ Total Petroleum Hydrocarbons as Diesel (TPH-D) was less than the reporting limit.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Chevron Service Station #9-0338
 5500 Telegraph Avenue
 Oakland, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
C-1A	02/11/02	<100	4	<2	<2	<2
C-2A	02/11/02	<100	<2	<2	<2	<2
C-4	02/11/02	<100	62	<2	<2	<2
C-5	02/11/02	<100	140	<2	<2	<2

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 (ppb) = Parts per billion

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3
Groundwater Analytical Results
 Chevron Service Station #9-0338
 5500 Telegraph Avenue
 Oakland, California

WELL ID	DATE	Cadmium (ppb)	Chromium (ppb)	Lead (ppb)	Nickel (ppb)	Zinc (ppb)	TOG (ppb)	HVOCs (ppb)
C-4	02/11/02	<10.0	80.5	16.7	126	143	<320	<0.20-<0.50

EXPLANATIONS:

TOG = Total Oil and Grease

HVOCs = Halogenated Volatile Organic Compounds

(ppb) = Parts per billion

Note: All HVOCs were not detected (ND) unless otherwise noted.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

Client/ CHEVRON

Facility # 9-0338

Job#: 386456

Address: 5500 Telegraph Ave.

Date: 5/13/02

City: Oakland, CA

Sampler: TC

Well ID C-1A

Well Condition: o.k.

Well Diameter 2 in.

Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 19.45 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

Depth to Water 8.97 ft.

10.48 X VF .17 = 1.7 X 3 (case volume) = Estimated Purge Volume: 5 1/2 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1608

Weather Conditions: Sunny

Sampling Time: 1625

Water Color: Cloudy Odor: yes

Purging Flow Rate: _____ gpm.

Sediment Description: _____

Did well de-water? no

If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ hos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1611</u>	<u>2.0</u>	<u>7.26</u>	<u>429</u>	<u>67.3</u>			
<u>1613</u>	<u>4.0</u>	<u>7.16</u>	<u>516</u>	<u>66.8</u>			
<u>1615</u>	<u>5 1/2</u>	<u>7.17</u>	<u>520</u>	<u>66.4</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-1A</u>	<u>3 x JOA Vials</u>	<u>Y</u>	<u>ACH</u>	<u>LANCASTER</u>	<u>TPH(G)/btex/mtbe</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: Took total well depth.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/CHEVRON
 Facility # 9-0338
 Address: 5500 Telegraph Ave
 City: Oakland, CA

Job#: 386456
 Date: 5/13/02
 Sampler: TL

Well ID: C-2A
 Well Diameter: 2 in.
 Total Depth: 20.25 ft.
 Depth to Water: 10.13 ft.

Well Condition: o.k

Hydrocarbon Thickness:	<u>0</u> (feet)	Amount Bailed (product/water):	<u>0</u> (Gallons)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

10.12 X VF .17 = 1.7 X 3 (case volume) = Estimated Purge Volume: 5 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1522
 Sampling Time: 1538
 Purging Flow Rate: _____ gpm.
 Did well de-water? NO

Weather Conditions: Sunny
 Water Color: Brown Odor: NO
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ hos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1326</u>	<u>1.5</u>	<u>6.97</u>	<u>475</u>	<u>67.0</u>			
<u>1329</u>	<u>3.0</u>	<u>6.90</u>	<u>525</u>	<u>66.1</u>			
<u>1332</u>	<u>5.0</u>	<u>6.92</u>	<u>576</u>	<u>66.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-2A</u>	<u>3 x JOA VIALS</u>	<u>Y</u>	<u>ACH</u>	<u>LANCASTER</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: Took TOTAL well Depth.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET.**

Client/ CHEVRON

Facility # 9-0338

Job#: 386456

Address: 5500 Telegraph Ave.

Date: 5/13/02

City: Oakland, CA

Sampler: TC

Well ID C-4

Well Condition: o.k

Well Diameter 2 in.

Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 19.49 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

Depth to Water 11.76 ft.

7.73 X VF .17 = 1.3 X 3 (case volume) = Estimated Purge Volume: 4 (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1902

Weather Conditions: SUNNY

Sampling Time: 1512

Water Color: Brown Odor: NO

Purging Flow Rate: _____ gpm.

Sediment Description: Silty

Did well de-water? NO

If yes: Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1505</u>	<u>1.5</u>	<u>7.52</u>	<u>535</u>	<u>68.9</u>			
<u>1607</u>	<u>3.0</u>	<u>7.30</u>	<u>521</u>	<u>67.6</u>			
<u>1809</u>	<u>4.0</u>	<u>7.26</u>	<u>516</u>	<u>67.4</u>			
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-4</u>	<u>3 x JOA VIALS</u>	<u>Y</u>	<u>NCL</u>	<u>LANCASTER</u>	<u>TPH(G)/btex/mtbe</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: Took TOTAL well Depth.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/CHEVRON
Facility # 9-0338
Address: 5500 Telegraph Ave.
City: Oakland, CA

Job#: 386456
Date: 5/13/02
Sampler: TC

Well ID: C-5
Well Diameter: 2 in.
Total Depth: 20.24 ft.
Depth to Water: 8.02 ft.

Well Condition: o.k
Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
Volume Factor (VF):
2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.80

12.22 X VF .17 = 2.0 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: 1545
Sampling Time: 1558
Purging Flow Rate: _____ gpm.
Did well de-water? no

Weather Conditions: Sunny
Water Color: Brown Odor: no
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1548</u>	<u>2.0</u>	<u>7.18</u>	<u>620</u>	<u>68.3</u>			
<u>1550</u>	<u>4.0</u>	<u>7.20</u>	<u>530</u>	<u>67.6</u>			
<u>1553</u>	<u>6.0</u>	<u>7.16</u>	<u>521</u>	<u>67.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>C-5</u>	<u>3 x JOA Vials</u>	<u>Y</u>	<u>ACH</u>	<u>LANCASTER</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: Took total well depth.

Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only
 Acct. #: 10905 Sample #: 3820722-6 SCR#: _____

051502-003

Facility #: 9-0338 Job #386456 Global ID#T0600100347
 Site Address: 5500 TELEGRAPH AVE., OAKLAND, CA
 Chevron PM: Karen Streich Lead Consultant: DELTA/G-R
 Consultant/Office: G-R, Inc., 6747 Sierra Court, Dublin, Ca 94568
 Consultant Prj. Mgr.: Deanna L. Harding (Deanna@grinc.com)
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899
 Sampler: TONY CAMARDA
 Service Order #: _____ Non SAR: _____

Matrix		Analyses Requested										
		Preservation Codes										
Potable	NPDES	Total Number of Containers	BTEX + MTBE 8260	8021	TPH 8015 MOD	GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420	7421
<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
			2	X	X							
			3	X	X							
			3	X	X							
			3	X	X							
			3	X	X							

Preservative Codes
 H = HCl T = Thiosulfate
 N = HNO₃ B = NaOH
 S = H₂SO₄ O = Other

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

8021 MTBE Confirmation
 Confirm highest hit by 8260
 Confirm all hits by 8260
 Run ___ oxy s on highest hit
 Run ___ oxy s on all hits

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air
<u>DA</u>	<u>5/13/02</u>					X		
<u>C-1A</u>		<u>1625</u>	X			X		
<u>C-2A</u>		<u>1538</u>	X			X		
<u>C-4</u>		<u>1512</u>	X			X		
<u>C-5</u>		<u>1558</u>	X			X		

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)

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

Data Package Options (please circle if required)

QC Summary Type I — Full
 Type VI (Raw Data) Coelt Deliverable not needed
 WIP (RWQCB)
 Disk

Relinquished by: <u>Tony Camarda</u>	Date: <u>5/13/02</u>	Time: <u>1715</u>	Received by: <u>Wanna</u>	Date: <u>5/15/02</u>	Time: <u>1400</u>
Relinquished by: <u>Wanna</u>	Date: <u>5/15/02</u>	Time: <u>1400</u>	Received by: <u>Archer Amaze</u>	Date: <u>5-15-02</u>	Time: <u>1400</u>
Relinquished by: <u>Archer Amaze</u>	Date: <u>5-15-02</u>	Time: <u>1530</u>	Received by: <u>Airborne</u>	Date: <u>5-15-02</u>	Time: _____
Relinquished by Commercial Carrier: <u>Airborne</u>	UPS FedEx Other: <u>Airborne</u>	Received by: <u>Kevin Y. [unclear]</u>	Date: <u>5/16/02</u>	Time: <u>0920</u>	
Temperature Upon Receipt: <u>25-55°C</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				



ANALYTICAL RESULTS

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

925-842-8582

Prepared by:

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

RECEIVED

MAY 28 2002

GETTLER-RYAN INC.
GENERAL CONTRACTOR

SAMPLE GROUP

The sample group for this submittal is 807741. Samples arrived at the laboratory on Thursday, May 16, 2002. The PO# for this group is 99011184 and the release number is STREICH.

<u>Client Description</u>		<u>Lancaster Labs Number</u>
QA-T-020513	NA Water	3820722
C-1A-W-020513	Grab Water	3820723
C-2A-W-020513	Grab Water	3820724
C-4-W-020513	Grab Water	3820725
C-5-W-020513	Grab Water	3820726

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO

Delta C/O Gettler-Ryan

Attn: Deanna L. Harding



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681



Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,



Steve Stabinger
Group Leader



Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

CASE NARRATIVE

Prepared For:

Karen Streich
ChevronTexaco
6001 Bollinger Canyon Road
L 4310
San Ramon, CA 94583-0904

Prepared By:

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

SAMPLE GROUP

The sample group for this submittal is 807741. Samples arrived at the laboratory on Thursday, May 16, 2002.

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

COMMENTS

The C-2A vials from Facility 90338 submitted for the BTEX/MTBE and TPH-GRO analysis did not have a pH < 2 at the time of the analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.



Lancaster Laboratories Sample No. WW 3820722

Collected: 05/13/2002 00:00

Account Number: 10905

Submitted: 05/16/2002 09:20

ChevronTexaco

Reported: 05/23/2002 at 16:09

6001 Bollinger Canyon Rd L4310

Discard: 06/23/2002

San Ramon CA 94583

QA-T-020513 NA Water
 Facility# 90338 Job# 386456 GRD
 5500 TELEGRAPH-OAKLAND T0600100347 QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	05/17/2002	02:16	Anastasia Papadoplos	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	05/17/2002	02:16	Anastasia Papadoplos	1
01146	GC VOA Water Prep	SW-846 5030B	1	05/17/2002	02:16	Anastasia Papadoplos	n.a.

#=Laboratory Method Detection Limit Exceeded target detection limit
 N.D.=Not detected above the Reporting Limit



Lancaster Laboratories, Inc.
 2425 New Holland Pike
 Lancaster, PA 17605-2425
 717-656-2300 Fax: 717-656-2681



Lancaster Laboratories Sample No. **WW 3820723**

Collected: 05/13/2002 16:25 by TC

Account Number: 10905

Submitted: 05/16/2002 09:20
 Reported: 05/23/2002 at 16:09
 Discard: 06/23/2002

ChevronTexaco
 6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

C-1A-W-020513 Grab Water
 Facility# 90338 Job# 386456 GRD
 5500 TELEGRAPH-OAKLAND T0600100347 C-1A

C1A--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	1,800.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D. #	1.0	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	26.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	8.6	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	7.5	2.5	ug/l	1

A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for benzene. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	05/17/2002 15:29	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	05/17/2002 15:29	Anastasia Papadopoulos	1
01146	GC VOA Water Prep	SW-846 5030B	1	05/17/2002 15:29	Anastasia Papadopoulos	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit
 N.D.=Not detected Above the Reporting Limit



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Lancaster Laboratories Sample No. **WW 3820724**

Collected: 05/13/2002 15:38 by **TC**

Account Number: 10905

Submitted: 05/16/2002 09:20

Reported: 05/23/2002 at 16:09

Discard: 06/23/2002

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

C-2A-W-020513 **Grab** **Water**
Facility# 90338 Job# 386456 **GRD**
5500 TELEGRAPH-OAKLAND T0600100347 C-2A

C2A--

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	1,100.	50.	ug/l	1
<p>The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.</p> <p>The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.</p> <p>A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.</p>						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	17.	0.50	ug/l	1
00777	Toluene	108-88-3	83.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	21.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	99.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	29.	2.5	ug/l	1
<p>The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt.</p> <p>A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.</p>						

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
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#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected above the Reporting Limit



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Lancaster Laboratories Sample No. **WW 3820724**

Collected: 05/13/2002 15:38 by TC

Account Number: 10905

Submitted: 05/16/2002 09:20
Reported: 05/23/2002 at 16:09
Discard: 06/23/2002

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

C-2A-W-020513 Grab Water GRD
Facility# 90338 Job# 386456
5500 TELEGRAPH-OAKLAND T0600100347 C-2A

C2A--								
01729	TPH-GRO - Waters	N. CA LUFT Gasoline	1	05/17/2002 16:03	Melissa D Mann			1
		Method						
08214	BTEX, MTBE (8021)	SW-846 8021B	1	05/17/2002 16:03	Anastasia Papadoplos			1
01146	GC VOA Water Prep	SW-846 5030B	1	05/17/2002 16:03	Anastasia Papadoplos			n.a.

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected or above the Reporting Limit



Lancaster, PA 17605-2425
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Lancaster Laboratories Sample No. **WW 3820725**

Collected: 05/13/2002 15:12 by **TC**

Account Number: 10905

Submitted: 05/16/2002 09:20
 Reported: 05/23/2002 at 16:09
 Discard: 06/23/2002

ChevronTexaco
 6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

C-4-W-020513 Grab Water GRD
 Facility# 90338 Job# 386456
 5500 TELEGRAPH-OAKLAND T0600100347 C-4

C4---

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	21.	2.5	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	05/17/2002 16:38	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	05/17/2002 16:38	Melissa D Mann	1
01146	GC VOA Water Prep	SW-846 5030B	1	05/17/2002 16:38	Anastasia Papadopoulos	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit
 N.D.=Not detected or below the Reporting Limit



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Lancaster Laboratories Sample No. **WW 3820726**

Collected: 05/13/2002 15:58 by TC

Account Number: 10905

Submitted: 05/16/2002 09:20
 Reported: 05/23/2002 at 16:09
 Discard: 06/23/2002

ChevronTexaco
 6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

C-5-W-020513 Grab Water
 Facility# 90338 Job# 386456 GRD
 5500 TELEGRAPH-OAKLAND T0600100347 C-5

C5---

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	79.	50.	ug/l	1
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.						
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	7.7	0.50	ug/l	1
00777	Toluene	108-88-3	1.2	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	2.6	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	5.5	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	180.	2.5	ug/l	1
A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.						

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline	1	05/17/2002 17:12	Melissa D Mann	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	05/17/2002 17:12	Anastasia Papadopoulos	1
01146	GC VOA Water Prep	SW-846 5030B	1	05/17/2002 17:12	Melissa D Mann	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit
 N.D.=Not detected above the Reporting Limit



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Quality Control Summary

Client Name: ChevronTexaco
Reported: 05/23/02 at 04:09 PM

Group Number: 807741

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02136A53A								
Sample number(s): 3820722								
Benzene	N.D.	0.5	ug/l	115	106	80-118	8	30
Toluene	N.D.	0.5	ug/l	114	104	82-119	9	30
Ethylbenzene	N.D.	0.5	ug/l	115	105	81-119	9	30
Total Xylenes	N.D.	1.5	ug/l	110	105	82-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	118	109	79-127	7	30
TPH-GRO - Waters	N.D.	50.	ug/l	111	105	76-126	6	30
Batch number: 02136A53B								
Sample number(s): 3820723-3820726								
Benzene	N.D.	0.5	ug/l	115	106	80-118	8	30
Toluene	N.D.	0.5	ug/l	114	104	82-119	9	30
Ethylbenzene	N.D.	0.5	ug/l	115	105	81-119	9	30
Total Xylenes	N.D.	1.5	ug/l	110	105	82-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	118	109	79-127	7	30
TPH-GRO - Waters	N.D.	50.	ug/l	111	105	76-126	6	30

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	BKG	DUP	DUP	Dup RPD Max
	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD
Batch number: 02136A53A								
Sample number(s): 3820722								
Benzene	108		77-131					
Toluene	112		80-128					
Ethylbenzene	117		76-132					
Total Xylenes	116		76-132					
Methyl tert-Butyl Ether	115		61-144					
TPH-GRO - Waters	84		74-132					
Batch number: 02136A53B								
Sample number(s): 3820723-3820726								
Benzene	108		77-131					
Toluene	112		80-128					
Ethylbenzene	117		76-132					
Total Xylenes	116		76-132					
Methyl tert-Butyl Ether	115		61-144					
TPH-GRO - Waters	84		74-132					

Surrogate Quality Control

Analysis Name: TPH-GRO - Waters
Batch number: 02136A53A

	Trifluorotoluene-F	Trifluorotoluene-F
3820722	113	104
Blank	99	104
LCS	109	109
LCSD	108	104
MS	99	105
Limits:	67-135	71-130

Analysis Name: TPH-GRO - Waters
Batch number: 02136A53B

*. Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



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Lancaster, PA 17605-2425
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Quality Control Summary

Page 2 of 2

Client Name: ChevronTexaco
Reported: 05/23/02 at 04:09 PM

Group Number: 807741

Surrogate Quality Control		
	Trifluorotoluene-F	Trifluorotoluene-P
3820723	111	96
3820724	104	102
3820725	105	101
3820726	98	106
Blank	107	104
LCS	109	109
LCSD	108	104
MS	99	105
Limits:	67-135	71-130

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.



Lancaster Laboratories, Inc.
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