

11550-8 11/01/97



Chevron

January 29, 1998

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

Mr. Larry Seto
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: Former Chevron Service Station #9-0191
900 Otis Drive , Alameda, California**

Dear Mr. Seto:

Enclosed is the Fourth Quarter Groundwater Monitoring Report for 1997, prepared by our consultant Gettler-Ryan Inc., for the above noted site. Groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents.

Monitoring wells MW-2 and MW-3 were sampled while wells MW-4, MW-5, MW-6 and MW-7 were only gauged for groundwater depth and to determine the direction of flow. Monitoring well MW-2 was below method detection limits for all constituents, while in well MW-3 there was a slight increase in the benzene and ethylbenzene constituents with the toluene and xylene constituents below method detection limits. The site still appears to be low risk and not a significant risk to human health and to the environment.

Groundwater depth varied from 1.50 feet to 3.39 feet below grade with a direction of flow northerly.

This is to advise you, that the soil disposal information you requested to assist in formalizing closure of this site is being researched and I expect will be transmitted to you within the next ten days.

If you have any questions or comments, call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

January 29, 1998
Mr. Larry Seto
Former Chevron Service Station # 9-0191
Page 2

cc. Ms. Bette Owen, Chevron

Harsch Investment Corp.
dba South Shore Center
235 W. MacArthur Boulevard, #63
Oakland, CA 94611

Mr. Phil Eyring
Eyring Reality Inc.
1901 Olympic Blvd., Suite 220
Walnut Creek, CA 94596-5079

Mr. Kevin Graves
RWQCB-San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612



GETTLER - RYAN INC.

January 15, 1998

Job #6324.80

Mr. Phil Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Fourth Quarter 1997 Groundwater Monitoring & Sampling Report
Former Chevron Service Station #9-0191
900 Otis Drive
Alameda, California

Dear Mr. Briggs:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On December 9, 1997, field personnel were on-site to monitor six wells (MW-2 through MW-7) and sample two wells (MW-2 and MW-3) at the Former Chevron Service Station #9-0191 located at 900 Otis Drive in Alameda, California.

Static groundwater levels were measured on December 9, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the wells. Static water level data and groundwater elevations are presented in Table 1. A Potentiometric Map is included as Figure 1.

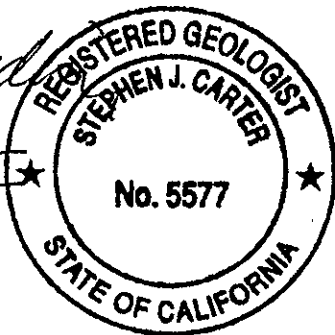
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

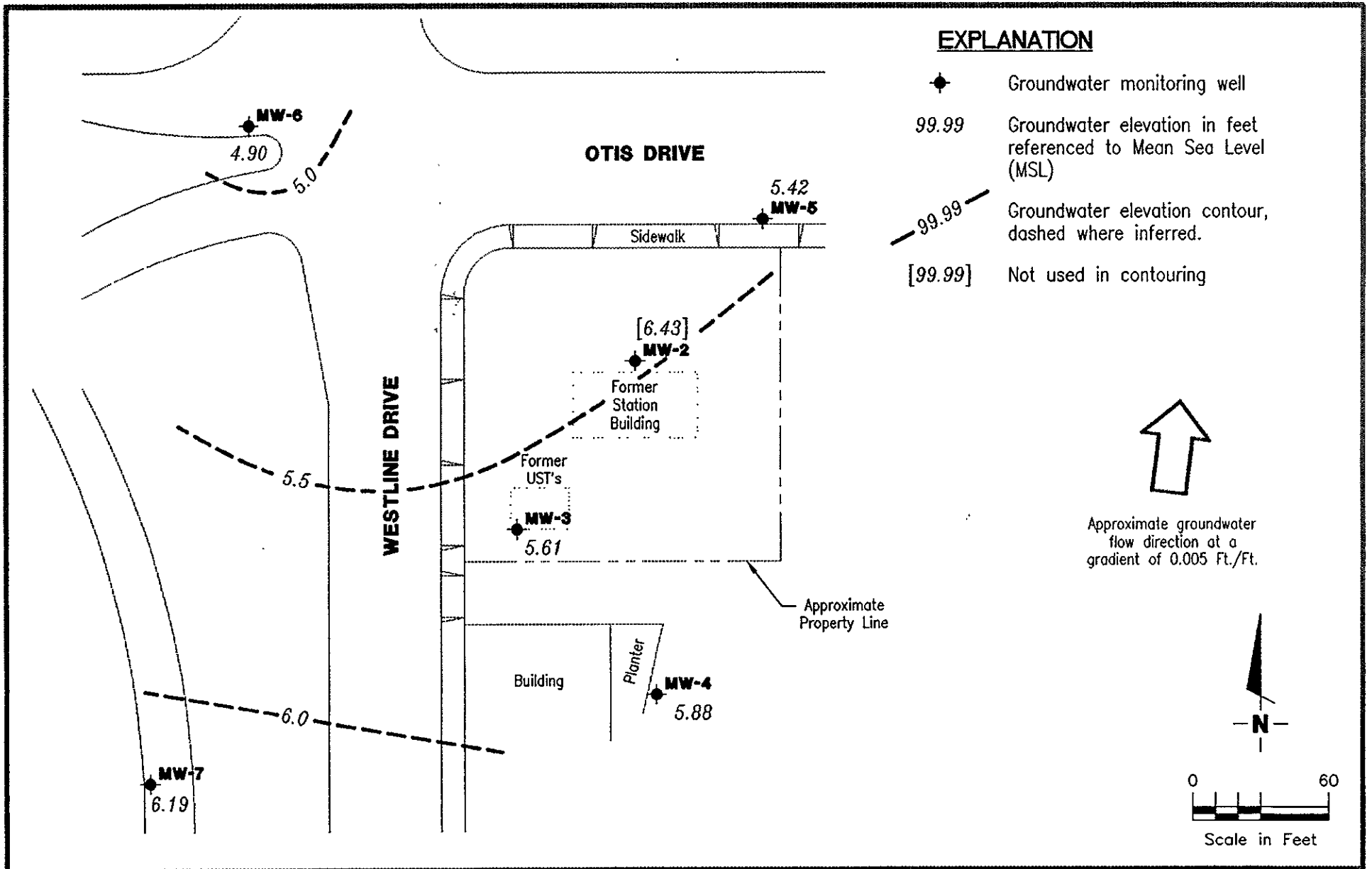
Deanna L. Harding
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Stephen J. Carter
Senior Geologist, R.G. No. 5577



DLH/SJC/ah
6324.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP

Former Chevron Service Station No. 9-0191
900 Otis Drive
Alameda, California

FIGURE

1

JOB NUMBER
6324

REVIEWED BY

DATE
December 9, 1997

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	←-----ppb----->				
						B	T	E	X	MTBE
MW-2/										
9.17	2/8/96	2.75	6.42	---	94	ND	ND	ND	ND	---
	6/27/96	4.99	4.18	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	5.21	3.96	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	4.54	4.63	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	3/5/97	4.09	5.08	0	---	---	---	---	---	---
	6/3/97	4.91	4.26	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/97	5.03	4.14	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/9/97	2.74	6.43	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
MW-3/										
7.11	2/8/96	1.36	5.75	---	460	26	ND	5.8	ND	---
	6/27/96	3.22	3.89	0	130 ¹	<0.50	<0.50	<0.50	0.51	16
	9/3/96	3.08	4.03	0	160 ²	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.68	4.43	0	260 ²	4.3	<0.50	0.62	<0.50	50
	3/5/97	2.40	4.71	0	310 ²	11	0.55	<0.50	<0.50	6.7
	6/3/97	3.04	4.07	0	260 ¹	<0.50	<0.50	<0.50	<0.50	10
	9/16/97	2.92	4.19	0	160 ¹	0.50	<0.50	<0.50	<0.50	<2.5
	12/9/97	1.50	5.61	0	440 ¹	14	<0.50	4.6	<0.50	5.9
MW-4/										
7.78	2/8/96	1.32	6.46	---	ND	ND	ND	ND	ND	---
	6/28/96	2.99	4.79	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.50	4.28	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.95	4.83	0	---	---	---	---	---	---
	3/5/97	2.55	5.23	0	---	---	---	---	---	---
	6/3/97	3.27	4.51	0	---	---	---	---	---	---
	9/16/97	3.27	4.51	0	---	---	---	---	---	---
	12/9/97	1.90	5.88	0	---	---	---	---	---	---
MW-5/										
7.37	2/8/96	0.75	6.62	---	ND	ND	ND	ND	ND	---
	6/27/96	2.66	4.71	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.29	4.08	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	2.66	4.71	0	---	---	---	---	---	---
	3/5/97	2.98	4.39	0	---	---	---	---	---	---
	6/3/97	2.78	4.59	0	---	---	---	---	---	---
	9/16/97	3.11	4.26	0	---	---	---	---	---	---
	12/9/97	1.95	5.42	0	---	---	---	---	---	---



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B T E X MTBE ←-----ppb----->				
						B	T	E	X	MTBE
MW-6/ 7.30	2/8/96	2.10	5.20	—	ND	ND	ND	ND	ND	—
	6/27/96	3.98	3.32	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	3.50	3.80	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	3.31	3.99	0	—	—	—	—	—	—
	3/5/97	3.15	4.15	0	—	—	—	—	—	—
	6/3/97	3.59	3.71	0	—	—	—	—	—	—
	9/16/97	5.12	2.18	0	—	—	—	—	—	—
	12/9/97	2.40	4.90	0	—	—	—	—	—	—
MW-7/ 9.58	2/8/96	3.24	6.34	—	ND	ND	ND	ND	ND	—
	6/27/96	5.07	4.51	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	5.29	4.29	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	4.95	4.63	0	—	—	—	—	—	—
	3/5/97	4.36	5.22	0	—	—	—	—	—	—
	6/3/97	5.07	4.51	0	—	—	—	—	—	—
	9/16/97	3.74	5.84	0	—	—	—	—	—	—
	12/9/97	3.39	6.19	0	—	—	—	—	—	—
Trip Blank	6/27/96	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/3/96	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/3/96	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	3/5/97	---	---	---	---	---	---	---	---	---
	6/3/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	9/16/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/9/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
DTW = Depth to water
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary-butyl ether
ppb = Parts per billion
ND = Not-Detected
— = Not analyzed/Not applicable

ANALYTICAL METHODS:

EPA Method 8015/5030 for TPH(G)
EPA Method 8020 for BTEX & MTBE

NOTES:

Water level elevation data and laboratory analytical results prior to June 27, 1996, were compiled from Quarterly Monitoring Reports prepared for Chevron by Pacific Environmental Group.

- * Product thickness was measured on and after June 27, 1996, with a MMC Flexi-Dip interface probe.
- ¹ Laboratory report indicates unidentified hydrocarbons C6-C12.
- ² Laboratory report indicates unidentified hydrocarbons < C8.



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 a MMC flexi-dip 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**

Chevron Facility # 9-0191

Job#: 6324.80

Address: 900 Otis Drive

Date: 12-9-97

City: Alameda, CA

Sampler: E.Cline

Well ID MW- 2

Well Condition: okay

Well Diameter 2" in.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 15' ft.

Depth to Water 2.74 ft.

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

12.26 x VF 0.17 = 2.1 X 3 (case volume) = Estimated Purge Volume: 6.3 (gal.)

Purge Equipment:

- Disposable Bailer
- Stack
- Suction
- Grundfos
- Other: _____

Sampling Equipment:

- Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 11:34

Weather Conditions: clear cool

Sampling Time: 11:42

Water Color: clear Odor: None

Purging Flow Rate: 1.1 gpm.

Sediment Description: None

Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:36</u>	<u>2.2</u>	<u>6.16</u>	<u>1263</u>	<u>16.8</u>			
<u>11:38</u>	<u>4.4</u>	<u>6.62</u>	<u>1260</u>	<u>17.3</u>			
<u>11:40</u>	<u>6.6</u>	<u>7.05</u>	<u>1270</u>	<u>17.4</u>			
<u>11:42</u>	<u>2.0</u>	<u>7.06</u>	<u>1260</u>	<u>17.3</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 2</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0191
 Address: 900 Otis Drive
 City: Alameda, CA

Job#: 6324.80
 Date: 12-9-97
 Sampler: F.Cline

Well ID: MW- 3
 Well Diameter: 2" in.
 Total Depth: 14' ft.
 Depth to Water: 1.50 ft.

Well Condition: okay
 Hydrocarbon Thickness: e in.
 Amount Bailed (product/water): e (gal.)

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

12.50 x VF 0.17 = 2.1 X 3 (case volume) = Estimated Purge Volume: 6.4 (gal.)

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

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

Starting Time: 11:44
 Sampling Time: 11:52
 Purging Flow Rate: 1.1 gpm.
 Did well de-water? _____

Weather Conditions: clear cool
 Water Color: clear Odor: None
 Sediment Description: None
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ hos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:46</u>	<u>2.2</u>	<u>7.70</u>	<u>1050</u>	<u>15.4</u>			
<u>11:48</u>	<u>4.4</u>	<u>7.77</u>	<u>1060</u>	<u>15.5</u>			
<u>11:50</u>	<u>6.6</u>	<u>7.79</u>	<u>1070</u>	<u>15.5</u>			
<u>11:52</u>	<u>7.0</u>	<u>7.78</u>	<u>1060</u>	<u>15.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW- 3</u>	<u>3 x 40m/VQA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0191
 Address: 900 Otis Drive
 City: Alameda, CA

Job#: 6324.80
 Date: 12-9-97
 Sampler: F. Cline

Well ID MW-4
 Well Diameter 2" in.
 Total Depth _____ ft.
 Depth to Water 1.90 ft.

Well Condition: Okay
 Hydrocarbon Thickness: _____ in. Amount Bailed _____ (gal.)

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW	3 x 40ml/VOA	Y	HCL	SEQUOIA	TPH, Gas/BTEX/MTBE

COMMENTS: Water level only (D.T.W).

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0191
 Address: 900 Otis Drive
 City: Alameda, CA

Job#: 6324.80
 Date: 12-9-97
 Sampler: F. Cline

Well ID: MW-5
 Well Diameter: 2" in.
 Total Depth: _____ ft.
 Depth to Water: 1.95 ft.

Well Condition: dry

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH, Gas/BTEX/MTBE

COMMENTS: Water level only - (CDTW.)

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # 9-0191
 Address: 900 Otis Drive
 City: Alameda, CA

Job#: 6324.80
 Date: 12-9-97
 Sampler: E.Cline

Well ID: MW-6
 Well Diameter: 2" in.
 Total Depth: _____ ft.
 Depth to Water: 2.40 ft.

Well Condition: dry
 Hydrocarbon Thickness: _____ in.
 Amount Bailed (product/water): _____ (gal.)

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW	3 x 40ml/VOA	Y	HCL	SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: Water level only (D.T.W.)

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Chevron Facility # 9-0191
 Address: 900 Otis Drive
 City: Alameda, CA

Job#: 6324.80
 Date: 12-9-97
 Sampler: F.Cline

Well ID MW- 7
 Well Diameter 2" in.
 Total Depth _____ ft.
 Depth to Water 3.39 ft.

Well Condition: dry
 Hydrocarbon Thickness: _____ in. Amount Bailed _____ (gal.)

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-Gas/BTEX/MTBE

COMMENTS: Water level only (D.T.W.)



Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191 Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712569-01	Sampled: 12/09/97 Received: 12/09/97 Analyzed: 12/17/97 Reported: 12/24/97
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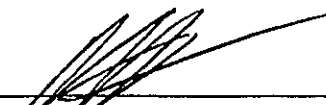
QC Batch Number: GC121797802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712569-02	Sampled: 12/09/97 Received: 12/09/97 Analyzed: 12/17/97 Reported: 12/24/97
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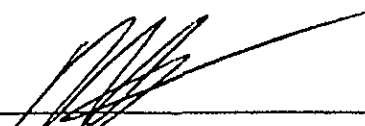
QC Batch Number: GC121797802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	83

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



 Mike Gregory
 Project Manager





Gettler Ryan/Geostrategies 6747 Sierra Court Suite G Dublin, CA 94568	Client Proj. ID: Chevron 9-0191 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9712569-03	Sampled: 12/09/97 Received: 12/09/97 Analyzed: 12/17/97 Reported: 12/24/97
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QC Batch Number: GC121797802007A
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	440
Methyl t-Butyl Ether	2.5	5.9
Benzene	0.50	14
Toluene	0.50	N.D.
Ethyl Benzene	0.50	4.6
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	107

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 9-0191
Matrix: Liquid

Work Order #: 9712569 -01-03

Reported: Dec 31, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC121797802007A	GC121797802007A	GC121797802007A	GC121797802007A	GC121797802007A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	S. L.	S. L.	S. L.	S. L.	S. L.
MS/MSD #:	97120366	97120366	97120366	97120366	-
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	-
Prepared Date:	12/17/97	12/17/97	12/17/97	12/17/97	-
Analyzed Date:	12/17/97	12/17/97	12/17/97	12/17/97	-
Instrument I.D.#:	GC7	GC7	GC7	GC7	-
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	-
Result:	15	16	17	50	-
MS % Recovery:	75	80	85	83	-
Dup. Result:	19	19	20	61	-
MSD % Recov.:	95	95	100	102	-
RPD:	24	17	16	20	-
RPD Limit:	0-25	0-25	0-25	0-25	-

LCS #:	LCS121797	LCS121797	LCS121797	LCS121797	LCS121797
Prepared Date:	12/17/97	12/17/97	12/17/97	12/17/97	12/17/97
Analyzed Date:	12/17/97	12/17/97	12/17/97	12/17/97	12/17/97
Instrument I.D.#:	GC7	GC7	GC7	GC7	GC7
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	500 µg/L
LCS Result:	21	21	22	67	480
LCS % Recov.:	105	105	110	112	96

MS/MSD	60-140	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130	70-130
Control Limits					

SEQUOIA ANALYTICAL
Elap #2142

Mike Gregory
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9712569.GET <1>





Gettler Ryan/Geostrategies

6747 Sierra Court Suite G

Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-0191

Lab Proj. ID: 9712569

Received: 12/09/97

Reported: 12/24/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 6 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

