ENVIRONMENTAL PROTECTION
98 AUG -9 PM 12:

Chevron

Chevron Products Company
6001 Bollinger Canyon Road
Building L, Room 1110
PO Box 6004
San Ramon, CA 94583-0904

Philip R. Briggs
Project Manager
Site Assessment & Remediation
Phone 925 842-9136
Fax 925 842-8370

August 10, 1998

Ms. Pam Evans
Alameda County Health Care Services
Division of Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

TP
#3644

Re: Chevron Service Station #9-4800
1700 Castro Street
Oakland, California

Dear Ms. Evans:

Enclosed is the Second Quarter Groundwater Monitoring and Sampling Report for 1998 that was prepared by our consultant Gettler-Ryan Inc. for the above noted facility. The groundwater samples were analyzed for the presence of TPH-g, TPH-d, BTEX and MtBE. All wells are sampled quarterly.

Monitoring well MW-1 showed an increase in the benzene constituent while wells MW-2 and MW-3 showed a decrease from the previous sampling event. The TPH-d constituent detected in wells MW1 and MW-2 indicated the presence of an unidentified hydrocarbon. To confirm the presence of MtBE, EPA Method 8260 was used to analyze for MtBE only in monitoring well MW-2 to, since this well had the highest concentration of the three wells onsite. MtBE was confirmed by this method, with a concentration of 3,800 ppb, which is a significant decrease from the previous sampling event of 13,000 ppb.

Depth to ground water varied from 23.79 feet to 24.93 feet below grade with a direction of flow westerly.

In a letter from Mr. Thomas Peacock of your office, dated June 17, 1998, he requested that a further ground water investigation be conducted at the site, as it did not appear that the petroleum hydrocarbon plume had been defined. A work plan for this investigation is expected to be submitted within the time frame given in said letter.

For your information, overspill protection was added at the tanks and dispensers last year and therefore, the fueling system is in compliance with the EPA 1998 requirements. The tanks and piping system was tested for tightness 5/10/98 and tested tight.

If you have any questions call me at (925) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Bill Scudder, Chevron

GETTLER-RYAN INC.

July 31, 1998 Job #6383.80

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

Re: Second Quarter 1998 Groundwater Monitoring & Sampling Report
Chevron Service Station #9-4800
1700 Castro Street
Oakland, California

Dear Mr. Briggs:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On June 28, 1998, field personnel were on-site to monitor and sample three wells (MW-1, MW-2 and MW-3) at the above referenced site.

Static groundwater levels were measured and 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
Project Coordinator

Barbara Sieminski
Project Geologist, R.G. No. 6676

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

DLH/ba/dlh
6383.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

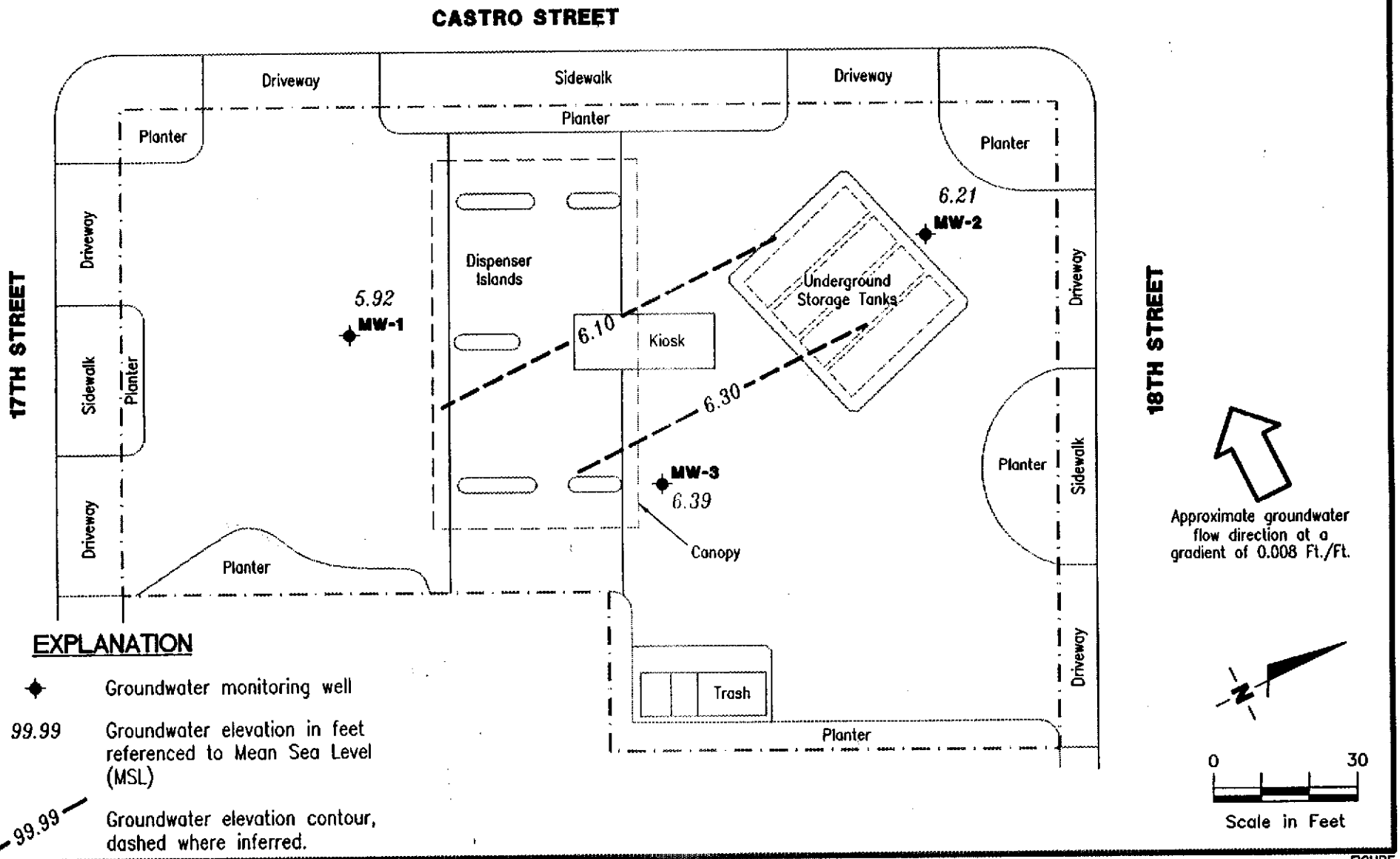

FIGURE 1

Gettler - Ryan Inc.

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

POTENTIOMETRIC MAP
Chevron Service Station No. 9-4800
1700 Castro Street
Oakland, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
6383		June 28, 1998	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-4800, 1700 Castro Street, Oakland, California

Well ID/ TOC(ft)	Date Sampled	Depth to Water (ft)	GWE (msl)	Product Thickness (ft)	TPH(D)	TPH(G)	B	T	E	X	MTBE
					<--------			ppb			-------->
MW-1											
30.75[1]	06/04/97	25.82	4.39	0.00	71[2]	890	100	110	29	150	<10
	09/16/97	25.90	4.85	0.00	75[2]	1,600	210	210	60	250	<10
	12/17/97	25.87	4.88	0.00	65[2]	940	120	100	41	160	<25
	03/18/98	24.85	5.90	0.00	77[2]	530	91	39	22	65	6.8
	06/28/98	**24.83**	**5.92**	**0.00**	**140[2]**	**1,100**	**220**	**140**	**37**	**120**	**14**
MW-2											
30.00[1]	06/04/97	24.87	5.13	0.00	4,000[2]	13,000	790	30	420	1,700	4,000
	09/16/97	24.94	5.06	0.00	2,200[2]	4,000	360	9.7	210	460	1,500
	12/17/97	24.82	5.18	0.00	2,100[2]	4,100	380	<10	200	460	2,100
	03/18/98	23.57	6.43	0.00	3,700[2]	8,400	1,800	<50	350	630	13,000
	06/28/98	**23.79**	**6.21**	**0.00**	**4,400[2]**	**9,300**	**740[4]**	**340[4]**	**710[4]**	**2,300[4]**	**3,800[3]**
MW-3											
31.32[1]	06/04/97	26.05	5.27	0.00	<50	190	26	20	1.5	16	8.2
	09/16/97	26.15	5.17	0.00	<50	270	58	53	6.1	30	21
	12/17/97	26.10	5.22	0.00	<50	290	50	54	8.1	37	21
	03/18/98	24.90	6.42	0.00	<50	390	140	33	4.6	30	94
	06/28/98	**24.93**	**6.39**	**0.00**	**<50**	**290**	**90**	**11**	**1.6**	**13**	**150**
Trip Blank	06/04/97	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	09/16/97	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	12/17/97	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	03/18/98	---	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	06/28/98	**---**	**---**	**---**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-4800, 1700 Castro Street, Oakland, California (continued)

EXPLANATION:

TOC = Top of casing elevation
(ft) = feet
GWE = Groundwater elevation
(msl) = Referenced relative to mean sea level
TPH(D) = Total Petroleum Hydrocarbons as diesel
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 analyzed, not measured

ANALYTICAL METHODS:

EPA Method 8015 Modified for TPH as Diesel
EPA Method 8015 for TPH as Gasoline
EPA Method 8020 for BTEX & MTBE

NOTES:

1 MW-1 through MW-3 were surveyed on June 18, 1997, by Virgil Chavez Land Surveying (PLS #6323). Benchmark used for TOC is the back of sidewalk on 18th Street as reference line. Benchmark Elevation = 29.65' (msl).
2 Laboratory report indicates unidentified hydrocarbons C9-C24.
3 MTBE by EPA Method 8260.
4 BTEX by EPA Method 8260.

6383.tqm

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 # 9-4800 Job#: 6383.80

Address: 1700 Castro Street Date: 6-28-95

City: Oakland, CA Sampler: F.Cline

Well ID MW- 1 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 30.3 ft.

Depth to Water 24.83 ft.

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

5.47 X VF 0.17 = 0.93 X 3 (case volume) = Estimated Purge Volume: 2.7 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 1433 Weather Conditions: Clear Warm

Sampling Time: 1438 Water Color: Clear Odor: None

Purging Flow Rate: 1 gpm. Sediment Description: Clear

Did well de-water? NC If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1434	1	6.81	955	21.5			
1436	2	6.80	~~1000~~	21.3			
1436	3	6.80	1055	21.1			
1438	3.5	~~6.78~~	1053	21.2			
		6.79					

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-)	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-Gas/BTEX/MTBE
MW-)	2 X Liter	Y	NONE	SEQUOIA	TPH-Diesel

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-4800 Job#: 6383.80

Address: 1700 Castro Street Date: 6-28-9E

City: Oakland, CA Sampler: F.Cline

Well ID MW-2 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.5 ft.

Depth to Water 23.79 ft.

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

6.71 x VF 0.17 = 1.1 X 3 (case volume) = Estimated Purge Volume: 3.4 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 1452 Weather Conditions: clear warm

Sampling Time: 1525 Water Color: clear Odor: Mild

Purging Flow Rate: 1 gpm. Sediment Description: Clear

Did well de-water? NO If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1459	1	6.78	801	22.1			
1502	2	6.85	[illegible]	21.9			
1509	3	6.81	952 950	21.3			
1513	4	6.81	949	21.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-Gas/BTEX/MTBE
MW-2	2 X Liter	Y	NONE	SEQUOIA	TPH-Diesel

COMMENTS:

9/97-fieldst.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Chevron Facility # 9-4800 Job#: 6383.80

Address: 1700 Castro Street Date: 6-28-96

City: Oakland, CA Sampler: F.Cline

Well ID MW-3 Well Condition: okay

Well Diameter 2" in. Hydrocarbon Thickness: C in. Amount Bailed (product/water): C (gal.)

Total Depth 30.23 ft.

Depth to Water 24.93 ft.

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

5.30 x VF 0.17 = 0.9 X 3 (case volume) = Estimated Purge Volume: 2.7 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 1412

Sampling Time: 1417

Purging Flow Rate: 1 gpm.

Did well de-water? No

Weather Conditions: clear warm

Water Color: clear Odor: Mild

Sediment Description: N/A

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1413	1	7.45	805	22.1			
1414	2	7.10	989	21.8			
1415	3	6.93	1000	21.0			
1417	3.5	6.94	1000	21.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x 40m/VOA	Y	HCL	SEQUOIA	TPH-Gas/BTEX/MTBE
MW-3	2 X Liter	Y	NONE	SEQUOIA	TPH-Diesel

COMMENTS:

Fax copy of Lab Report and COC to Chevron Contact. EMS

Chain of Custody Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number #9-4800
Facility Address 1700 CASTRO STREET, OAKLAND, CA
Consultant Project Number 6383
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) MR. PHIL BRIGGS
(Phone) (510) 842-9136
Laboratory Name SEQUOIA Service Code: 2202790
Laboratory Service Order # 9051783
Samples Collected by (Name) F. Cline
Collection Date 6-28-98
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	TPH Gas by 8015	BTEX/MTBE by 8020				Remarks
TB-LB	1	2	W	TB	—	HCl	Y	X													DO NOT BILL TB-LB ANALYSIS
MW-3	2	5		G	1411	HCl, None		X	X												
MW-1	3	5			1438			X	X												
MW-2	4	6	↓	↓	1505	↓	↓		X							X	X				

Analyses To Be Performed

8260 for BTEX/MTBE

Confirm highest hit of (8020) MTBE by 8260

*ON MW-2
RUN TPHG by 8015
RUN BTEX, MTBE by 8260!
ONLY Report BTEX & MTBE Constituents
Thank you.

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.	6/29/98 1830	D. Harden	G-R Inc.	6/29/98
D. Harden	G-R	6/29/98		Sequoia	6/29/98 2152
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
	Sequoia	6/29/98	Jeri Downs		6/29 1547

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-4800, Oakland	Sampled: 06/28/98
6747 Sierra Court Suite J	Sample Descript: TB-LB	Received: 06/29/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/06/98
Attention: Deanna Harding	Lab Number: 9806I85-01	Reported: 07/21/98

QC Batch Number: GC070698BTEX06A
Instrument ID: GCHP06

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	87

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-4800, Oakland	Sampled: 06/28/98
6747 Sierra Court Suite J	Sample Descript: MW-1	Received: 06/29/98
Dublin, CA 94568	Matrix: LIQUID	Extracted: 07/06/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/08/98
Attention: Deanna Harding	Lab Number: 9806l85-03	Reported: 07/21/98

QC Batch Number: GC0706980HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**140**
Chromatogram Pattern:	**C9-C24**	**Unid.-HC**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	91

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-4800, Oakland	Sampled: 06/28/98
6747 Sierra Court Suite J	Sample Descript: MW-1	Received: 06/29/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/06/98
Attention: Deanna Harding	Lab Number: 9806I85-03	Reported: 07/21/98

QC Batch Number: GC070698BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	250	1100
Methyl t-Butyl Ether	12	14
Benzene	2.5	220
Toluene	2.5	140
Ethyl Benzene	2.5	37
Xylenes (Total)	2.5	120
Chromatogram Pattern:		GAS

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	94

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-4800, Oakland	Sampled: 06/28/98
6747 Sierra Court, Suite J	Sample Descript: MW-2	Received: 06/29/98
Dublin, CA 94568	Matrix: LIQUID	Extracted: 07/06/98
	Analysis Method: EPA 8015 Mod	Analyzed: 07/09/98
Attention: Deanna Harding	Lab Number: 9806I85-04	Reported: 07/21/98

QC Batch Number: GC0706980HBPEXZ
Instrument ID: GCHP4A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	250	4400
Chromatogram Pattern:	C9-C24	Unid.-HC

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	155 Q

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-4800, Oakland
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9806l85-04

Sampled: 06/28/98
Received: 06/29/98

Analyzed: 07/06/98
Reported: 07/21/98

QC Batch Number: GC070698BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	9300
Chromatogram Pattern:		GAS

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-4800, Oakland
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8260
Lab Number: 9806l85-04

Sampled: 06/28/98
Received: 06/29/98

Analyzed: 07/07/98
Reported: 07/21/98

QC Batch Number: MS0707988260S2A

Volatile Organics (EPA 8260)

Analyte	Detection Limit ug/L	Sample Results ug/L
Benzene	20	740
Ethylbenzene	20	710

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Analyte	Detection Limit ug/L	Sample Results ug/L
Toluene	**20**	**340**
Total Xylenes	**20**	**2300**

Surrogates	Control Limits %		% Recovery
1,2-Dichlorobenzene-d4	76	114	Q
Toluene-d8	88	110	136 Q
4-Bromofluorobenzene	86	115	95

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

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 9-4800, Oakland
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9806I85-02

Sampled: 06/28/98
Received: 06/29/98
Extracted: 07/06/98
Analyzed: 07/08/98
Reported: 07/21/98

QC Batch Number: GC0706980HBPEXZ
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	78

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-4800, Oakland	Sampled: 06/28/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 06/29/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 07/06/98
Attention: Deanna Harding	Lab Number: 9806I85-02	Reported: 07/21/98

QC Batch Number: GC070698BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**290**
Methyl t-Butyl Ether	**5.0**	**150**
Benzene	**1.0**	**90**
Toluene	**1.0**	**11**
Ethyl Benzene	**1.0**	**1.6**
Xylenes (Total)	**1.0**	**13**
Chromatogram Pattern:		**GAS**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	97

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 9-4800, Oakland Lab Proj. ID: 9806I85	Received: 06/29/98 Reported: 07/21/98

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 15 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

MTBE by 8260:
The result of the MTBE by 8260 = 3800 ug/L with a D.L = 20

TPH-GAS/BTEX:
Sample 9806I85-02 was diluted 2-fold.
Sample 9806I85-03 was diluted 5-fold.
Sample 9806I85-04 was diluted 10-fold.

SEQUOIA ANALYTICAL

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

Client Project ID: Chevron 9-4800, Oakland

QC Sample Group: 9806185-02-04

Reported: Jul 21, 1998

QUALITY CONTROL DATA REPORT

Matrix:	Liquid
Method:	EPA 8015A
Analyst:	A. Porter
ANALYTE	Diesel

QC Batch #: GC0707980HBPEXZ

Sample No.:	9806131-1
Date Prepared:	7/7/98
Date Analyzed:	7/9/98
Instrument I.D.#:	GCHP5A
Sample Conc., ug/L:	1500
Conc. Spiked, ug/L:	1000
Matrix Spike, ug/L:	2000
% Recovery:	50
Matrix Spike Duplicate, ug/L:	2100
% Recovery:	60
Relative % Difference:	18
RPD Control Limits:	0-50

LCS Batch#: BLK070798ZS

Date Prepared:	7/7/98
Date Analyzed:	7/9/98
Instrument I.D.#:	GCHP5A
Conc. Spiked, ug/L:	1000
Recovery, ug/L:	680
LCS % Recovery:	68

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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.

SEQUOIA ANALYTICAL

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

Client Project ID: Chevron 9-4800, Oakland

QC Sample Group: 9806185-01-04

Reported: Jul 21, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8020
Analyst: G. PESHINA

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
QC Batch #:	GC070698BTEX06A			
Sample No.:	GW9806G23-1			
Date Prepared:	7/6/98	7/6/98	7/6/98	7/6/98
Date Analyzed:	7/6/98	7/6/98	7/6/98	7/6/98
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	10	10	11	32
% Recovery:	100	100	110	107
Matrix Spike Duplicate, ug/L:	11	11	11	32
% Recovery:	110	110	110	107
Relative % Difference:	9.5	9.5	0.0	0.0
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#:	GWBLK070698A			
Date Prepared:	7/6/98	7/6/98	7/6/98	7/6/98
Date Analyzed:	7/6/98	7/6/98	7/6/98	7/6/98
Instrument I.D.#:	GCHP6	GCHP6	GCHP6	GCHP6
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	10	10	10	32
LCS % Recovery:	100	100	100	107

Percent Recovery Control Limits:

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

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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SEQUOIA ANALYTICAL

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Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-4800, Oakland	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9806185 -04	Reported: Jul 22, 1998

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Benzene
QC Batch#:	MS0707988240S2A	MS0707988240S2A	MS0707988240S2A
Analy. Method:	EPA 8240	EPA 8240	EPA 8240
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	N. Nelson	N. Nelson	N. Nelson
MS/MSD #:	8062737	8062737	8062737
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	GCMS2	GCMS2	GCMS2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L
Result:	47	52	45
MS % Recovery:	94	104	90
Dup. Result:	49	54	46
MSD % Recov.:	98	108	92
RPD:	4.2	3.8	2.2
RPD Limit:	0-25	0-25	0-25

LCS #:	LCS070798	LCS070798	LCS070798
Prepared Date:	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	GCMS2	GCMS2	GCMS2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L
LCS Result:	47	46	48
LCS % Recov.:	94	92	96

MS/MSD	60-140	60-140	60-140
LCS	65-135	70-130	70-130
Control Limits			

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

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

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Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-4800, Oakland	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9806I85-04	Reported: Jul 22, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Toluene	Chloro-Benzene	MTBE
QC Batch#:	MS0707988240S2A	MS0707988240S2A	MS0707988240S2A
Analy. Method:	EPA 8240	EPA 8240	EPA 8240
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	N. Nelson	N. Nelson	N. Nelson
MS/MSD #:	8062737	8062737	8062737
Sample Conc.:	N.D.	N.D.	N.D.
Prepared Date:	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	GCMS2	GCMS2	GCMS2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L
Result:	50	63	48
MS % Recovery:	100	126	96
Dup. Result:	51	64	51
MSD % Recov.:	102	128	102
RPD:	2.0	1.6	6.1
RPD Limit:	0-25	0-25	0-25
LCS #:	LCS070798	LCS070798	LCS070798
Prepared Date:	7/7/98	7/7/98	7/7/98
Analyzed Date:	7/7/98	7/7/98	7/7/98
Instrument I.D.#:	GCMS2	GCMS2	GCMS2
Conc. Spiked:	50 µg/L	50 µg/L	50 µg/L
LCS Result:	48	59	50
LCS % Recov.:	96	118	100
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

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