ENVIRONMENTAL
PROTECTION

97 MAR -6 PM 4:27

Chevron

Chevron Products Company
6001 Bollinger Canyon Rd, Bldg L
PO Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation
Phone (510) 842-9500
Fax (510) 842-8370

March 4th, 1997

Ms. Madhulla Logan
Alameda County Dept. of Envrio. Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Chevron Service Station #9-8341
3530 Macarthur Blvd, Oakland, CA

Dear Ms. Logan,

Please find attached the first quarter 1997 quarterly groundwater monitoring report prepared by Gettler-Ryan dated February 10th, 1997. This report describes the results of the sampling event performed on January 6th, 1997.

The groundwater samples collected by Gettler-Ryan were analyzed for the presence of TPHG and BTEX constituents. The results obtained during this sampling event were consistent with historical data seen from previous sampling at this site.

Chevron will continue with the current monitoring schedule (quarterly) in place for this site. If you have any questions or comments regarding this site please call. I can be reached by phone at (510) 842-9449 or by fax at (510) 842-8370.

Sincerely,

Tammy L Hodge
Groundwater Coordinator
Site Assessment and Remediation

cc:
* Mr. Richard Hiett, RWQCB-Bay Region
2101 Webster St. Suite 500, Oakland CA 94612
* Ms. Violet Cargill, Chevron Property Development
* Chevron File # 98341

GETTLER-RYAN INC.

February 10, 1997 Job #6346.80

02-10-97P04:25 RC

Ms. Tammy Hodge
Chevron Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: First Quarter Groundwater Monitoring & Sampling Report
Chevron Service Station #9-8341
3530 MacArthur Boulevard
Oakland, California

Dear Ms. Hodge:

This report documents the quarterly groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On January 6, 1997, field personnel were on-site to monitor and sample three wells (MW-1, MW-2, and MW-3) at Chevron Service Station #9-8341 located at 3530 MacArthur Boulevard in Oakland, California.

Static groundwater levels were measured on January 6, 1997. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site 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,

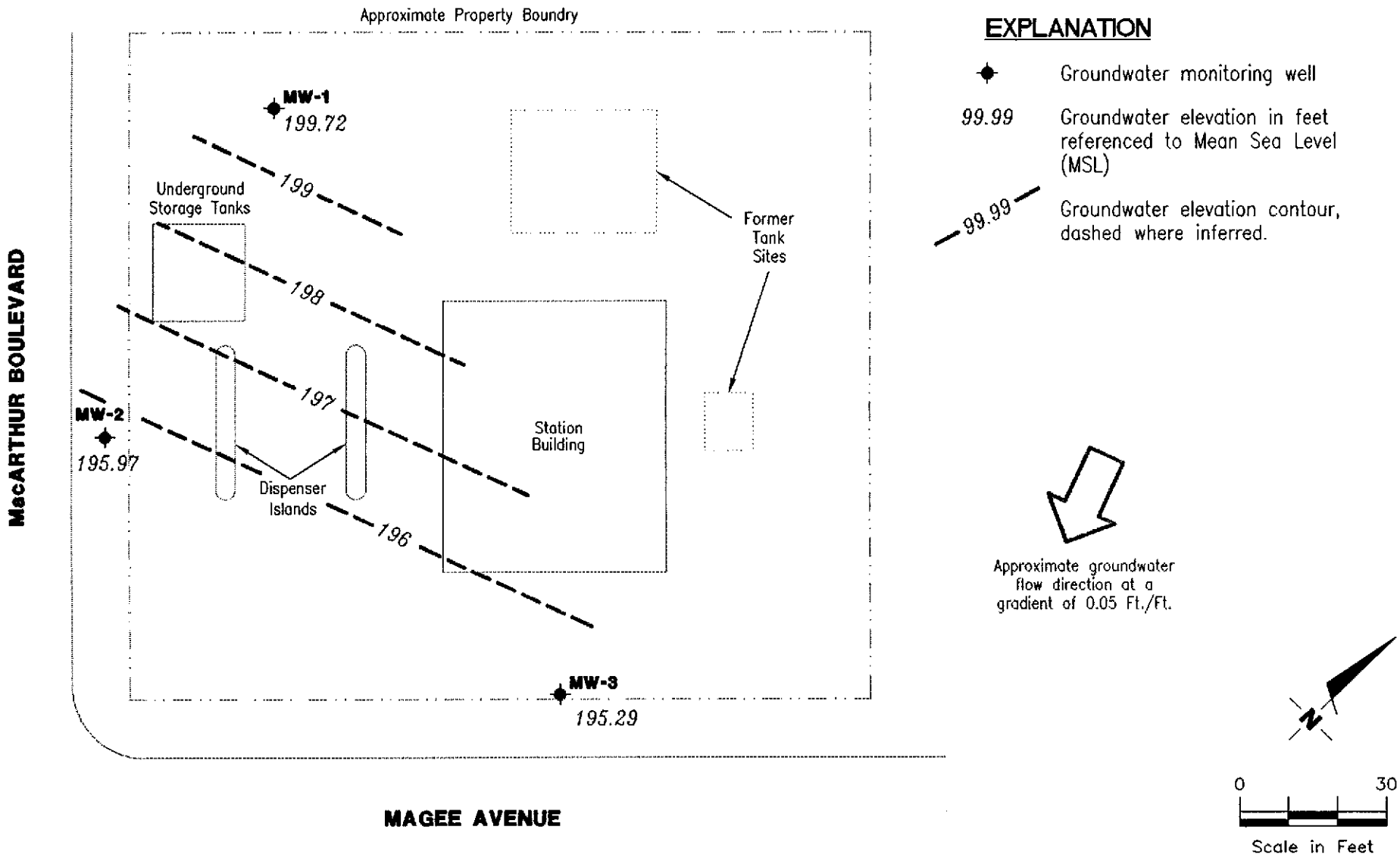
Deanna L. Harding
Project Coordinator

Penny L. Silzer
Senior Geologist, R.G. No. 5523

REGISTERED GEOLOGIST
Penny L. Silzer
No. 5523
STATE OF CALIFORNIA

DLH/PLS/dlh
6346.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
Chevron Service Station No. 9-8341
3530 MacArthur Boulevard
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
6346		January 6, 1997	

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-8341, 3530 MacArthur Blvd., Oakland, California

Well ID/ TOC	Date Sampled	Depth to Water (ft)	GWE (msl)	Product Thickness (ft)	TPH(G)	B	T	E	X	MTBE
					<----------ppb---------->					
MW-1										
202.47	04/04/96	3.82	198.65	---	<50	<0.50	<0.50	<0.50	<0.50	ND
	11/01/96	5.02	197.45	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	**2.75**	**199.72**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**14**
MW-2										
198.88	04/04/96	2.81	196.07	---	<50	<0.50	<0.50	<0.50	<0.50	6100
	11/01/96	3.61	195.27	0	<500	<5.0	<5.0	<5.0	<5.0	2600
	01/06/97	**2.91**	**195.97**	**0**	**<2000**	**31**	**<20**	**<20**	**<20**	**4000**
MW-3										
199.10	04/04/96	3.88	195.22	---	<50	<0.50	<0.50	<0.50	<0.50	ND
	11/01/96	4.19	194.91	0	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	**3.81**	**195.29**	**0**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**
Trip Blank	11/01/96	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	01/06/97	**---**	**---**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<2.5**

Explanation:

TOC = Top of casing elevation
(ft) = feet
GWE = Groundwater elevation
(msl) = Measurement referenced relative to mean sea level
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
ND = Not-detected at or above laboratory detection limit

Notes:

Water level elevation data and laboratory analytical results prior to November 1, 1996, were provided by Chevron Products Company.

6346.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 SAMPLING FIELD DATA SHEET

SAMPLER: Clyde Galantine — DATE: 1/6/97

ADDRESS: 3530 MacArthur — JOB #: 6846.85

CITY: Oakland — SS#: 9-8341

Well ID: MW-1 — Well Condition: OK

Well Location Description:

Well Diameter: 2 in — Hydrocarbon Thickness:

Total Depth: 27.14 ft

Depth to Liquid: 2.75 ft

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

# of casing Volume: 24.39 x .17 x(VF) 3 = 4.14 — #Estimated purge Volume: 12.5 gal.

Purge Equipment: Stack pump — Sampling Equipment: disp. bailer

Did well dewater: No — If yes, Time: — Volume:

Starting Time: 12:14 — Purging Flow Rate: 2 gpm.

Sampling Time:

Time	pH	Conductivity	Temperature	Volume
12:14	8.19	460	22.0	1
12:16	8.09	443	21.5 ~~19.7~~	6
12:18	7.89	460	21.4	10
12:20	8.19	491	21.2	13
12:25	9.53	481	21.0	

Weather Conditions: Clear, breezy

Water Color: clear — Odor: —

Sediment Description: —

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-1	Voas	X	HCL	Sequoia	TPH-C, BTEX MTBE

Comments: Well pressurized

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Clyde Galantine | DATE: 1/6/97

ADDRESS: 3530 MacArthur | JOB #: 6346.85

CITY: Oakland | SS#: 9-8341

Well ID: MW-2 | Well Condition: OK

Well Location Description:

Well Diameter: 2 in | Hydrocarbon Thickness:

Total Depth: 33.20 ft

Depth to Liquid: 2.91 ~~3.61~~ ft

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

# of casing Volume: 30.29 ~~29.39~~ x .17 x(VF) 3 = 5.1 | #Estimated purge Volume: 15 gal.

Purge Equipment: stack pump | Sampling Equipment: disp. bailer

Did well dewater: No | If yes, Time: — | Volume:

Starting Time: 13:00 | Purging Flow Rate: gpm.

Sampling Time: 13:18

Time	pH	Conductivity	Temperature	Volume
13:06	6.39	678	20.9	1
13:08	6.43	691	20.5	5
13:10	6.74	689	20.5	10
13:12	6.74	690	20.7	15
13:18	6.70	686	20.8	Sample

Weather Conditions: Clear, breezy

Water Color: Clear | Odor: —

Sediment Description: —

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-2	Voas	X	HCL	Sequoia	TPH-G, BTEX MTBE

Comments: Well pressurized

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Clyde Galantine | DATE: 1/6/97

ADDRESS: 3530 MacArthur | JOB #: 6346.85

CITY: Oakland | SS#: 9-8341

Well ID: MW-3 | Well Condition: OK

Well Location Description:

Well Diameter: 2 in | Hydrocarbon Thickness:

Total Depth: 32.84 ft

Depth to Liquid: 3.81 ~~2.91~~ ft

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

# of casing Volume: 29.03 ~~29.93~~ x .17 x (VF) 3 = 4.9 | #Estimated purge Volume: 15 gal.

Purge Equipment: stack pump | Sampling Equipment: disp. bailer

Did well dewater: No | If yes, Time: ___ | Volume:

Starting Time: 12:41 | Purging Flow Rate: ~2 gpm.

Sampling Time: 12:55

Time	pH	Conductivity	Temperature	Volume
12:41	6.52	565	20.1	1
12:44	6.68	581	20.2	5
12:46	6.78	585	20.3	10
12:48	6.80	580	20.7	15
12:55	6.77	580	20.6	Sample

Weather Conditions: Clear breezy

Water Color: lt. brown | Odor: —

Sediment Description: —

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-3	Voas	X	HCL	Sequoia	TPH-C, BTEX MTBE

Comments: Well pressurized

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

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

Chevron Facility Number: 9-8341
Facility Address: 3530 MacArthur Oakland
Consultant Project Number: 6346.75
Consultant Name: Gettler-Ryan
Address: 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name): Deanna Harding
(Phone): 510 551-7555 (Fax Number): 510 551-7888

Chevron Contact (Name): Tammy Hodge
(Phone): 510 842-9449
Laboratory Name: Sequoia Service Code: ZZ02790
Laboratory Release Number: 9022851
Samples Collected by (Name): Clyde Galantine
Collection Date: 1/6/97
Signature: Clyde Galantine

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	TPH Gas + BTEX w/MTBE (8015) (8020)	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)					DO NOT BILL TB-LB ANALYSIS 970125 Remarks
MW-1	1	3	W	G	12:25		Y	X												
MW-3	2	3	"	"	13:18		"	X												
MW-2	3	3	"	"	12:55		"	X												
TB-LB	4	2	"	"	—		"	X												

JAN 7 1113

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Clyde Galantine	G-R	1/6/97 19:00	D. Harding	G-R Tne	1/7/96 820
D. Harding	G-R	1/7/97 0915		SEQUOIA	1/7/97 0915
	SEQUOIA	1/7/97 1113	Received For Laboratory By (Signature)		1/7/97 1113

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-8341, Oakland	Sampled: 01/06/97
6747 Sierra Court Suite G	Sample Descript: MW-1	Received: 01/07/97
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/08/97
Attention: Deanna Harding	Lab Number: 9701251-01	Reported: 01/14/97

QC Batch Number: GC010897BTEX21A
Instrument ID: GCHP21

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**	**14**
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	88

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, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-8341, Oakland	Sampled: 01/06/97
6747 Sierra Court Suite G	Sample Descript: MW-3	Received: 01/07/97
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/08/97
Attention: Deanna Harding	Lab Number: 9701251-02	Reported: 01/14/97

QC Batch Number: GC010897BTEX21A
Instrument ID: GCHP21

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	91

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, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-8341, Oakland	Sampled: 01/06/97
6747 Sierra Court Suite G	Sample Descript: MW-2	Received: 01/07/97
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/10/97
Attention: Deanna Harding	Lab Number: 9701251-03	Reported: 01/14/97

QC Batch Number: GC011097BTEX22A
Instrument ID: GCHP22

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	2000	N.D.
Methyl t-Butyl Ether	**100**	**4000**
Benzene	**20**	**31**
Toluene	20	N.D.
Ethyl Benzene	20	N.D.
Xylenes (Total)	20	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Chevron 9-8341, Oakland	Sampled: 01/06/97
6747 Sierra Court Suite G	Sample Descript: TB-LB	Received: 01/07/97
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 01/08/97
Attention: Deanna Harding	Lab Number: 9701251-04	Reported: 01/14/97

QC Batch Number: GC010897BTEX21A
Instrument ID: GCHP21

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, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-8341, Oakland
Lab Proj. ID: 9701251

Received: 01/07/97
Reported: 01/14/97

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 8 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample 9701251-03 was diluted 40-fold.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-8341, Oakland	
6747 Sierra Court, Ste G	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9701251 -01, 02, 04	Reported: Jan 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC010897BTEX21A	GC010897BTEX21A	GC010897BTEX21A	GC010897BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9612H7405	9612H7405	9612H7405	9612H7405
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/8/97	1/8/97	1/8/97	1/8/97
Analyzed Date:	1/8/97	1/8/97	1/8/97	1/8/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.9	10	10	32
MS % Recovery:	99	100	100	107
Dup. Result:	10	11	11	33
MSD % Recov.:	100	110	110	110
RPD:	1.0	9.5	9.5	3.1
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK010897	BLK010897	BLK010897	BLK010897
Prepared Date:	1/8/97	1/8/97	1/8/97	1/8/97
Analyzed Date:	1/8/97	1/8/97	1/8/97	1/8/97
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	9.9	10	30
LCS % Recov.:	100	99	100	100

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

SEQUOIA ANALYTICAL

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

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Project ID:	Chevron 9-8341, Oakland	
6747 Sierra Court, Ste G	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9701251-03	Reported: Jan 21, 1997

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011097BTEX22A	GC011097BTEX22A	GC011097BTEX22A	GC011097BTEX22A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Porter	A. Porter	A. Porter	A. Porter
MS/MSD #:	970111403	970111403	970111403	970111403
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/10/97	1/10/97	1/10/97	1/10/97
Analyzed Date:	1/10/97	1/10/97	1/10/97	1/10/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	10	10	30
MS % Recovery:	110	100	100	100
Dup. Result:	9.8	9.6	9.6	28
MSD % Recov.:	98	96	96	93
RPD:	12	4.1	4.1	6.9
RPD Limit:	0-25	0-25	0-25	0-25
LCS #:	BLK011097	BLK011097	BLK011097	BLK011097
Prepared Date:	1/10/97	1/10/97	1/10/97	1/10/97
Analyzed Date:	1/10/97	1/10/97	1/10/97	1/10/97
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100
MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

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