GETTLER-RYAN INC.

April 12, 1996 Job #5178.80

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

Re: Former Chevron Service Station #9-0100
2428 Central Avenue
Alameda, CA

Dear Ms. Hodge:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On March 8, 1996, field personnel were on-site to monitor and sample three wells (MW-1 through MW-3) at the Former Chevron Service Station #9-0100 located at 2428 Central Avenue in Alameda, California.

Static groundwater levels were measured on March 8, 1996. 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 - Quarterly Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by GTEL Environmental Laboratories, Inc. Analytical results are presented in Table 1. The chain of custody document and laboratory analytical reports are attached.

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

Sincerely,

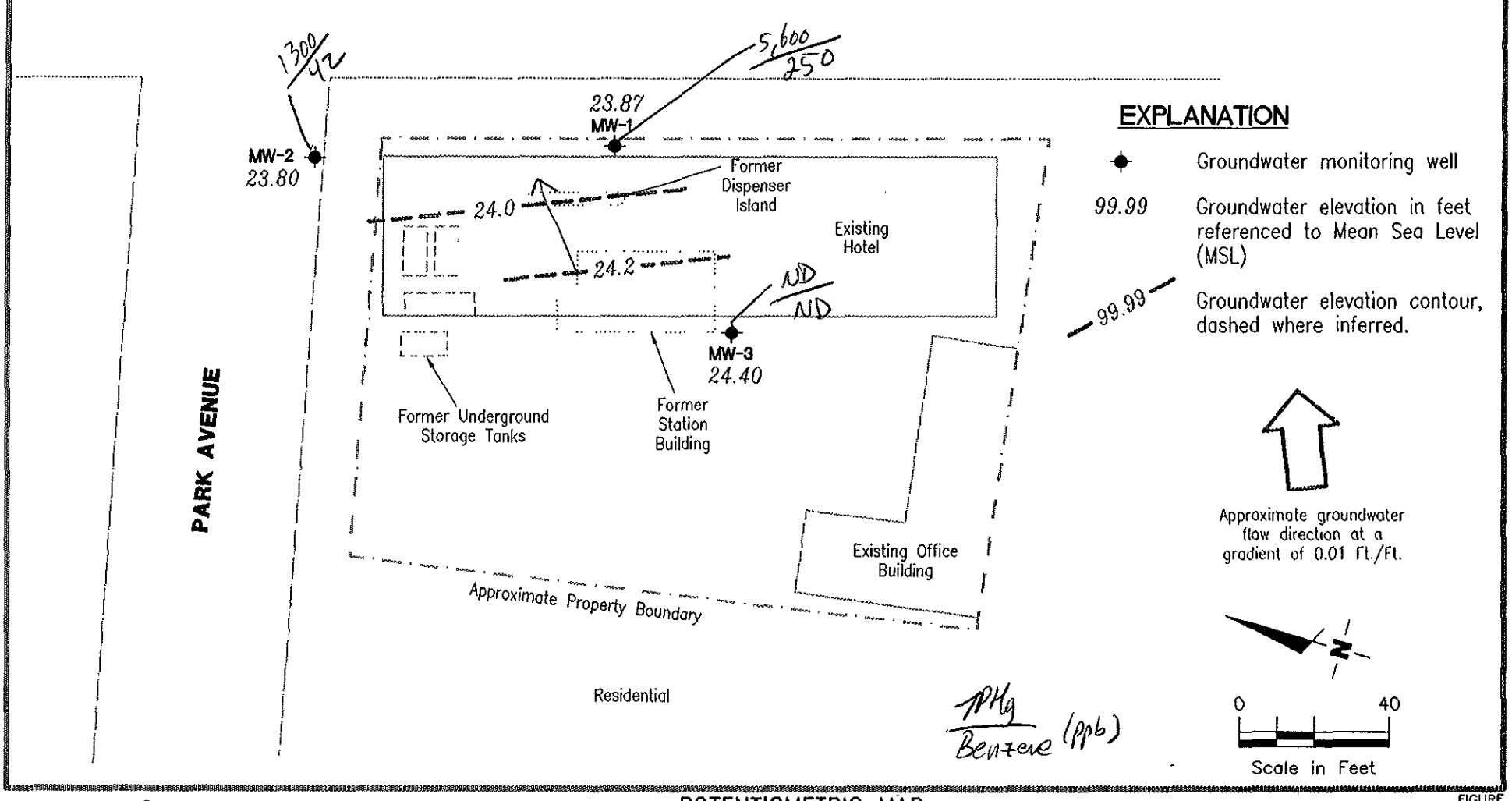
Deanna L. Harding
Project Coordinator

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

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

DLH/PLS/dlh
5178.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
Attachments: Standard Operating Procedure - Quarterly 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. 9-0100
2428 Central Avenue
Alameda, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
5178	PLS	March 8, 1996	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	TPH(G)	B	T	E	X	MTBE
						<----------ppb---------->				
MW-1/ 29.23	3/10/94[1,2]	6.79	22.44	0	7,400	120	120	33	72	---
	6/21/94	7.74	21.49	0	5,300	140	60	21	43	---
	9/26/94	8.94	20.29	0	9,500	<250[5]	<250[5]	<250[5]	<250[5]	---
	12/16/94	6.57	22.66	0	4,700	<0.5	46	15	48	---
	3/22/95	5.16	24.07	0	8,800	55	14	11	<10	---
	6/13/95	5.84	23.39	0	2,100	130	29	9.5	15	---
	9/15/95	7.65	21.58	0	8,100	110	26	6.0	13	---
	3/8/96	**5.36**	**23.87**	**0**	**5,600**	**250**	**<5.0**	**<5.0**	**<5.0**	**60**
MW-2/ 29.18	3/10/94[2,3]	6.94	22.24	0	6,400	<5	64	58	17	---
	6/21/94	7.89	21.29	0	1,800	23	12	6.9	32	---
	9/26/94	8.98	20.20	0	8,400	<100[5]	<100[5]	<100[5]	<100[5]	---
	12/16/94	6.65	22.53	0	2,300	<0.5	29	8.9	33	---
	3/22/95	5.15	24.03	0	1,500	0.6	4.5	<0.5	2.5	---
	6/13/95	6.06	23.12	0	880	<0.5	<0.5	2.2	10	---
	9/15/95	7.72	21.46	0	2,700	<0.5	17	4.8	13	---
	3/8/96	**5.38**	**23.80**	**0**	**1,300**	**42**	**2.0**	**0.7**	**2.2**	**10**
MW-3/ 30.09	3/10/94[2,4]	7.30	22.79	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/21/94	8.53	21.56	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	9.80	20.29	0	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	7.11	22.98	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	5.54	24.55	0	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	6.48	23.61	0	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	8.40	21.69	0	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	**5.69**	**24.40**	**0**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**
Trip Blank TB-LB	3/10/94	---	---	---	<50	<0.5	0.7	<0.5	<0.5	---
	6/21/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/26/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	12/16/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/22/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	6/13/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	9/15/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---
	3/8/96	**---**	**---**	**---**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0100, 2428 Central Avenue, Alameda, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
EDB = Ethylene Dibromide
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTICAL METHODS:

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

NOTES:

Water level elevation data and laboratory analytic results prior to March 22, 1995were compiled from Quarterly Monitoring Reports prepared for Chevron by Sierra Environmental Services.

* Product thickness was measured on and after June 21,1994 with a MMC Flexi-Dip interface probe.
1 TPH(D) was also analyzed and detected at 840 ppb. However, chromatogram does not match typical diesel pattern.
2 Organic lead and EDB were also analyzed but not detected at detection limts of 4 and 0.02 ppb, respectively.
3 TPH(D) was also analyzed and detected at 920 ppb. However, chromatogram does not match typical diesel pattern.
4 TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
5 Detection limits raised due to the dilution required by a high amount of foaming in the sample.

5178.TQM

STANDARD OPERATING PROCEDURE
QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan 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 pevention 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 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 analytic 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, preservative (if any), and the sample collector's initials. The water samples are placed in cooler maintained at 4 C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery 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 USA Products Company, the purge and decontamination water generated during sampling activities is taken to Chevron's Richmond Refinery for disposal.

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 3-8-96

ADDRESS: 2428 Central Ave | JOB #: 5178.85

CITY: Alameda | SS#: 9-0100

Well ID: MW-1 | Well Condition: ok

Well Location Description:

Well Diameter: 2 in | Hydrocarbon Thickness: -0-

Total Depth: 24.7 ft

Depth to Liquid: 5.36 ft

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

3 # of casing Volume: 19.34 x .17 x(VF) 3.3 #Estimated purge Volume: 9.9 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

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

Starting Time: 8:19 | Purging Flow Rate: 2 gpm.

Sampling Time: 8:29

Time	pH	Conductivity	Temperature	Volume
8:21	7.30	332	15.9	4 gal
8:23	7.26	368	16.9	8
8:24	7.23	371	17.0	10
8:29	7.22	372	17.1	11

Weather Conditions: sunny

Water Color: clear | Odor: mild

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-1	3X40ml	Y	HCl	GTEL	Gas BTEX w/MTBE

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 3-8-96

ADDRESS: 2428 Central Ave | JOB #: 5178.85

CITY: Alameda | SS#: 9-0100

Well ID: MW-2 | Well Condition: ok

Well Location Description:

Well Diameter: 2 in | Hydrocarbon Thickness: ~~0~~

Total Depth: 23.75 ft

Depth to Liquid: 5.38 ft

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

3 # of casing Volume: 18.37 x .17 x(VF) 3.1 | #Estimated purge Volume: 9.6 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

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

Starting Time: 7:59 | Purging Flow Rate: 1.5 gpm.

Sampling Time: 8:10

Time	pH	Conductivity	Temperature	Volume
8:01	6.88	551	15.9	3 gal
8:03	6.90	543	17.1	6
8:05	6.91	535	17.5	9
8:10	6.91	537		10

Weather Conditions: sunny

Water Color: clear | Odor: mild

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-2	3X40ml	Y	HCl	GTEL	Gas BTEX w/MTBE

Comments: Well box needs to be lowered - tripping hazard

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Guadalupe Sanchez | DATE: 3-8-96

ADDRESS: 2428 Central Ave | JOB #: 5178.85

CITY: Alameda | SS#: 9-0100

Well ID: MW-3 | Well Condition: G/C

Well Location Description:

Well Diameter: 2 in | Hydrocarbon Thickness: 0

Total Depth: 24.5 ft

Depth to Liquid: 5.69 ft

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

3 # of casing Volume: 18.81 x .17 x(VF) 3.2 #Estimated purge Volume: 9.6 gal.

Purge Equipment: Stack Pump | Sampling Equipment: Disposable Bailer

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

Starting Time: 7:30 | Purging Flow Rate: 1.5 gpm.

Sampling Time: 7:41

Time	pH	Conductivity	Temperature	Volume
7:32	7.26	498	15.0	3 gal
7:34	6.99	518	17.1	6
7:36	6.97	523	17.3	5
7:41	6.97	535	17.3	10

Weather Conditions: sunny

Water Color: clear | Odor: none

Sediment Description: none

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-3	3x40ml	Y	HCl	GTEL	Gas BTEX w/MTBE

Comments:

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: 9-0100
Facility Address: 2428 Central Ave. Alameda
Consultant Project Number: 5178.85
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: GTEL
Laboratory Release Number: 3470820
Samples Collected by (Name): Guadalupe Sanchez
Collection Date: 3-8-96
Signature: Guadalupe S

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)	Analyses To Be Performed: 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 / Remarks
TB-LB	1	2	W	G	—	HCl	Yes	X												
MW-3	2	3			7:41															
MW-2	3				8:10															
MW-1	4	↓	↓	↓	8:29	↓	↓	↓												

126080182

No Seals
4°C

7026516976

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Guadalupe S	G/R	3-8-96 1049	R. Al Ali	GTEL	3/8/96 10:45
John Wells	GTEL	3-8-96 16:20			
			Received For Laboratory By (Signature): Tammy Nielsen		3/9/96 0910

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

COC-3.DWG 03/91/mCH

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

March 19, 1996

Deanna Harding
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: GTEL Client ID: GTR01CHV08
Login Number: W6030182
Project ID (number): 5178.85
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 03/09/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for

Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W6030182
Project ID (number): 5178.85
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Method: EPA 8020
Matrix: Aqueous

	GTEL Sample Number	W6030182-01	W6030182-02	W6030182-03	W6030182-04
	Client ID	TBLB	MW-3	MW-2	MW-1
	Date Sampled		03/08/96	03/08/96	03/08/96
	Date Analyzed	03/16/96	03/16/96	03/16/96	03/16/96
	Dilution Factor	1.00	1.00	1.00	10.0

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	< 5.0	< 5.0	10.	60.
Benzene	0.5	ug/L	< 0.5	< 0.5	42.	250
Toluene	0.5	ug/L	< 0.5	< 0.5	2.0	< 5.0
Ethylbenzene	0.5	ug/L	< 0.5	< 0.5	0.7	< 5.0
Xylenes (total)	0.5	ug/L	< 0.5	< 0.5	2.2	< 5.0
BTEX (total)	--	ug/L	--	--	47.	260
TPH as Gasoline	50	ug/L	< 50	< 50	1300	5600

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W6030182 Volatile Organics
Project ID (number): 5178.85 Method: EPA 8020
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W6030182
Project ID (number): 5178.85 Volatile Organics
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA Method: EPA 8020
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020		Acceptability Limits:	43-136%
031796GC17-1	BW03179617	Method Blank Water	102.
031796GC17-2	LW03179617	Laboratory Control	105.
031796GC17-3	LWD03179617	LCS Water Duplicat	112.
031796GC17-4	MS03018102	Matrix Spike	106.
031796GC17-5	CV0317962017	Calibration Verifi	100.
--	03018201	TBLB	103.
--	03018202	MW-3	106.
--	03018203	MW-2	109.
--	03018204	MW-1	109.

Notes:
*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 5178.85
Project ID (Name): Chevron SS #9-0100
2428 Central Ave
Alameda, CA
Work Order Number: W6-03-0182
Date Reported: 03-19-96

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020

Date of Analysis:16-Mar-96 QC Batch No: 031796GC17-1

Analyte	Concentration, ug/L
MTBE	<5.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50.0

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W6030182
Project ID (number): 5178.85
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Calibration Verification Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020	Units:ug/L	QC Batch:031796GC17-5			
Benzene		20.0	18.6	93.0	77-123%
Toluene		20.0	18.7	93.5	77.5-122.5%
Ethylbenzene		20.0	18.3	91.5	63-137%
Xylenes (Total)		60.0	55.9	93.2	85-115%
TPH as Gasoline		500.	518.	104.	80-120%

Notes:
QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08 QUALITY CONTROL RESULTS
Login Number: W6030182
Project ID (number): 5178.85
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W6030181-02			MS ID:MS03018102		
Analysis Date: 16-MAR-96			16-MAR-96		
Units: ug/L	Sample	Spike	MS	MS	Acceptability Limits
Analyte	Conc.	Added	Conc.	% Rec.	%Rec.
Benzene	< 0.5 (0.340)	20.0	19.9	97.8	67-110
Toluene	< 0.5 (0.000)	20.0	19.4	97.0	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	18.7	93.5	65-120
Xylenes (Total)	< 0.5 (0.180)	60.0	55.0	91.4	62-119

Notes:
Values in parentheses in the sample concentration column are used for % recovery calculations

GTEL Client ID: GTR01CHV08
Login Number: W6030182
Project ID (number): 5178.85
Project ID (name): CHEVRON/9-0100/2428 CENTRAL AVE/ALAMEDA/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020
Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits RPD, %	Acceptability Limits Recovery, %
EPA 8020 Units: ug/L	QC Batch:031796GC17-3							
Benzene	20.0	21.4	107.	20.2	101.	5.77	20	39-150%
Toluene	20.0	21.4	107.	20.8	104.	2.84	20	46-148%
Ethylbenzene	20.0	21.5	108.	19.9	99.5	8.19	20	32-160%
Xylenes (Total)	60.0	63.8	106.	62.3	104.	1.90	20	51-145%

Notes: