Chevron

June 4, 1993

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

Site Assessment & Remediation

Mr. Scott Seery
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-6991
2920 Castro Valley Boulevard, Castro Valley, CA

Dear Mr. Seery:

Enclosed is the Groundwater Monitoring and Sampling Activities Report dated April 2, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), and BTEX. Laboratory analyses indicate that concentrations of these constituents were below method detection limits in all wells with the exception of monitor well MW-6. Benzene was detected in a sample collected from this well at a concentration of 76 ppb. TPH-D was also detected in this well at a concentration of 150 ppb, however the lab data indicates that the chromatogram pattern is not typical of diesel, but of a constituent lighter than diesel. Depth to ground water was measured at 9.5 feet to 10.9 feet below grade and the direction of flow is to the west.

Chevron's consultant has performed an investigation of the surrounding area to identify other possible sources of hydrocarbons found in monitor well MW-6. The investigation included a site walk to locate and map surrounding properties and business operations, a review of the public project files at the Regional Water Quality Control Board and Alameda County Health Care Services, and reviewing maps provided by the Castro Valley Sanitary District to determine locations of underground utilities.

It appears that three monitor wells exist on the property located at 2896 Castro Valley Boulevard which is immediately west of the Chevron site. According to a ground water monitoring report dated October 26, 1992, prepared by C-REM Engineers, concentrations of hydrocarbons have been detected in two of these wells. The gradient at this site has historically fluctuated between west and south, similar to the gradient at the adjacent Chevron site. Underground utilities in the area include a 21" diameter storm sewer running along the north side of Castro Valley Boulevard and a 36" diameter sewer line running along the south side of Castro Valley Boulevard. These two utility lines run between the Chevron site and the location of monitor well MW-6 and the 36" diameter sewer line is immediately adjacent to monitor well MW-6.

The potential for contaminant migration from the 2896 Castro Valley Boulevard property and the potential for contaminant migration along the utility backfill material raises the possibility that hydrocarbons observed in monitor well MW-6 may not have originated from the Chevron site. Chevron will continue to monitor and sample all wells on a quarterly basis to assist in determining the source of hydrocarbons observed in monitor well MW-6.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Very truly yours,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB - Bay Area
Mr. S.A. Willer
File (9-6991 QM2)

APR 12 '93 J.M.M.

GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387
FAX: (415) 685-9148

April 2, 1993

Project No. 020302091

Mr. Mark Miller
Chevron U.S.A. Inc.
2410 Camino Ramon
San Ramon, CA 94583-0804

SUBJECT: Groundwater Monitoring and Sampling Activities
Chevron Service Station No. 9-6991
2920 Castro Valley Boulevard, Castro Valley, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on March 5 and 17, 1993. The groundwater monitoring wells at this site were gauged on March 17, 1993, to measure depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not detected in the monitoring wells. A potentiometric surface map was prepared using the data collected on March 17, 1993 (Figure 1), and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After measuring the DTW, each monitoring well, except monitoring well MW-3, was purged and sampled on March 5, 1993. There was insufficient water in monitoring well MW-3 for purging. The groundwater samples were analyzed for the presence of benzene, toluene, ethylbenzene and xylenes; total petroleum hydrocarbons-as-gasoline; and total petroleum hydrocarbons-as-diesel fuel. Results of the analyses are summarized in Table 1. Laboratory reports and chain-of-custody documents are presented in Attachment 3. Monitoring well purge water was transported by Groundwater Technology to the Chevron Terminal in Richmond, California, for recycling.

Groundwater Technology is pleased to assist Chevron on this project. If you have any questions or comments, please feel free to call our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

Sandra L. Lindsey
Sandra L. Lindsey
Project Manager

Groundwater Technology, Inc.
Reviewed/Approved by

David R. Kleesattel
David R. Kleesattel
Registered Geologist
No. 5136

For:
John S. Gaines
Vice President, General Manager
West Region

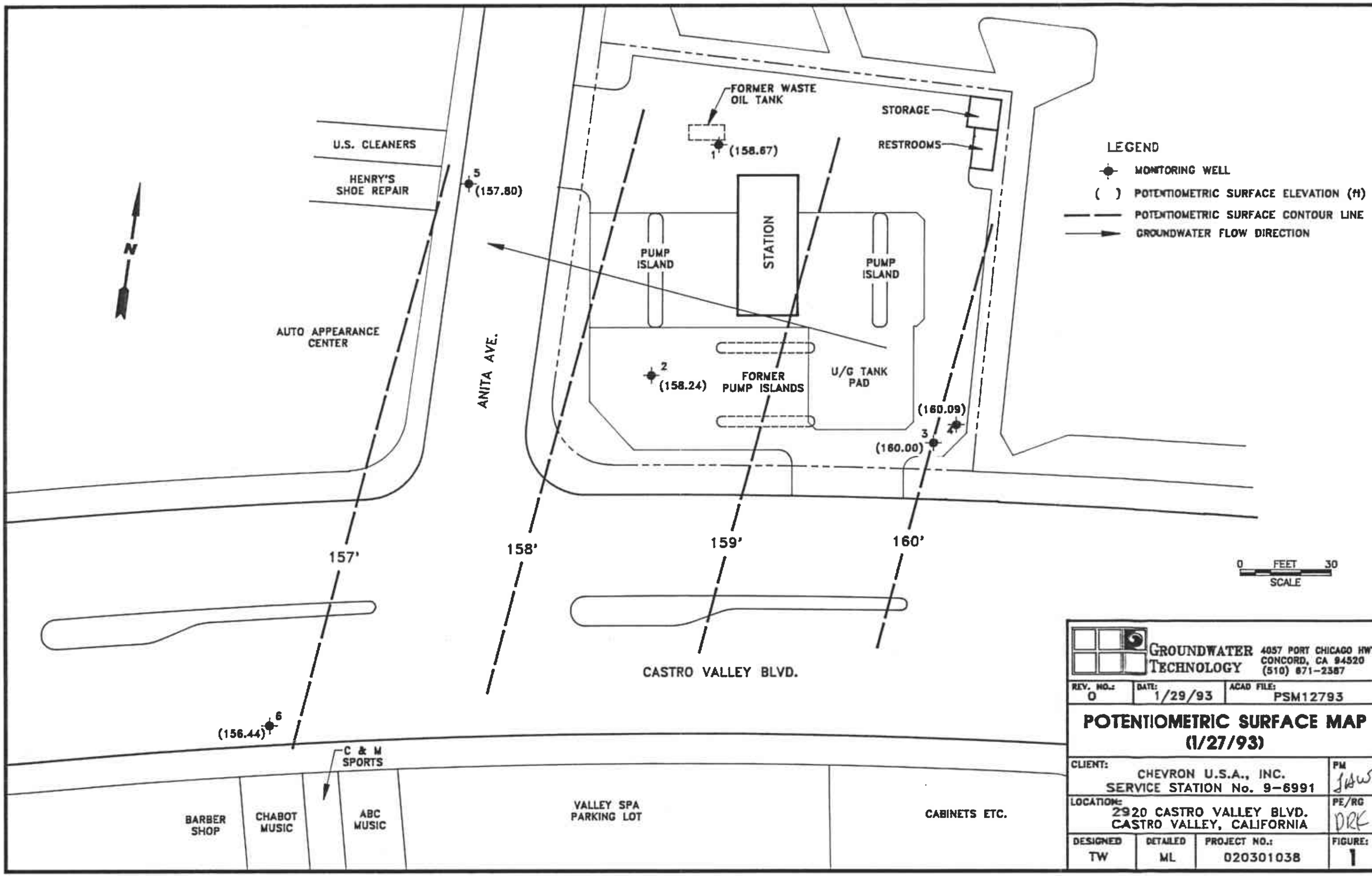
REGISTERED GEOLOGIST
DAVID R. KLEESATTEL
NO. 5136
STATE OF CALIFORNIA

Attachment 1 Figure 1
Attachment 2 Table
Attachment 3 Laboratory Report

LR2091A3.NLM

ATTACHMENT 1

FIGURE



GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387

REV. NO.:	DATE:	ACAD FILE:
0	1/29/93	PSM12793

POTENTIOMETRIC SURFACE MAP (1/27/93)

CLIENT:	PM
CHEVRON U.S.A., INC. SERVICE STATION No. 9-6991	JHW
LOCATION: 2920 CASTRO VALLEY BLVD. CASTRO VALLEY, CALIFORNIA	PE/RG DRF

DESIGNED	DETAILED	PROJECT NO.:	FIGURE:
TW	ML	020301038	1

ATTACHMENT 2

TABLE

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-6991
2920 Castro Valley Boulevard, Castro Valley, California

Well ID/ Elev.	Date	TOG	TPH-as-Diesel	TPH-as-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-1	10/08/91	<5000	---	230	45	<0.5	0.9	9.1	11.10	0.00	158.20
	11/04/91	---	---	340	120	<0.5	<0.5	6.1	11.03	0.00	158.27
169.30	12/04/91	<5000	170	<50	3.9	<0.5	<0.5	<0.5	11.05	0.00	158.25
	06/05/92	---	<50	100	26	0.6	0.5	1.0	11.04	0.00	158.26
	10/27/92	---	54	<50	11	<0.5	<0.5	<0.5	11.10	0.00	158.20
	12/30/92	---	170	<50	24	<0.5	<0.5	<0.5	---	---	---
	01/27/93	---	---	---	---	---	---	---	10.63	0.00	158.67
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.71	0.00	158.59
MW-2	10/08/91	---	---	110	5.1	1.1	0.8	26	11.95	0.00	157.20
	11/19/91	---	---	120	11	1.1	<0.5	17	11.75	0.00	157.40
169.15	12/04/91	---	130	440	30	2.5	<0.5	52	11.80	0.00	157.35
	06/05/92	---	130*	80	13	<0.5	<0.5	1.0	11.80	0.00	157.35
	10/27/92	---	110	54	13	<0.5	<0.5	<0.5	12.00	0.00	157.15
	12/30/92	---	92*	180	30	<0.5	<0.5	1.0	---	---	---
	01/27/93	---	---	---	---	---	---	---	10.91	0.00	158.24
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.89	0.00	158.26
MW-3	10/08/91	---	---	81	1.9	0.7	0.8	2.4	8.27	0.00	160.84
	11/04/91	---	---	60	<0.5	<0.5	<0.5	<0.5	10.85	0.00	158.26
169.11	12/04/91	---	<50	<50	<0.5	<0.5	<0.5	<0.5	11.05	0.00	158.06
	06/05/92	---	170*	<50	<0.5	<0.5	<0.5	<0.5	11.15	0.00	157.96
	10/27/92	---	120	<50	<0.5	<0.5	<0.5	<0.5	11.60	0.00	157.51
	12/30/92	---	170*	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/27/93	---	---	---	---	---	---	---	9.11	0.00	160.00
	03/05/93	---	---	---	---	---	---	---	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.95	0.00	159.16

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-6991
2920 Castro Valley Boulevard, Castro Valley, California

Well ID/ Elev.	Date	TOG	TPH-as-Diesel	TPH-as-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-4	10/27/92	---	<50	<50	<0.5	0.6	0.5	4.3	11.39	0.00	157.79
169.18	12/30/92	---	<50	<50	<0.5	<0.5	<0.5	<0.5	10.13	0.00	159.05
	01/27/93	---	---	---	---	---	---	---	9.09	0.00	160.09
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.90	0.00	159.28
MW-5	10/27/92	---	<50	74	<0.5	<0.5	0.6	7.1	9.95	0.00	157.46
167.41	12/30/92	---	<50	<50	<0.5	<0.5	<0.5	<0.5	9.20	0.00	158.21
	01/27/93	---	---	---	---	---	---	---	9.61	0.00	157.80
	03/05/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	9.51	0.00	157.90
MW-6	10/27/92	---	<50	600	22	22	24	130	12.54	0.00	153.92
166.46	12/30/92	---	470*	1,700	170	16	46	160	10.20	0.00	156.26
	01/27/93	---	---	---	---	---	---	---	10.02	0.00	156.44
	03/05/93	---	150*	480	76	0.9	3.1	7.1	---	---	---
	03/17/93	---	---	---	---	---	---	---	10.67	0.00	155.79
TRIP	10/08/91	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
BLANK	11/04/91	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/04/91	---	<50	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/05/92	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/30/92	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/05/93	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/17/93	---	---	---	---	---	---	---	---	---	---

DTW = Depth to water
SPT = Separate-phase hydrocarbons thickness
WTE = Water table elevation in feet above mean sea level
TOG = Total oil and grease
TPH = Total petroleum hydrocarbons
--- = Not applicable/not sampled/not measured
* = The pattern of peaks observed are not typical of diesel. Lighter than diesel.
Results in parts per billion

GROUNDWATER TECHNOLOGY

ATTACHMENT 3

LABORATORY REPORT

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Groundwater Technology Inc.
Attn: SANDRA LINDSEY

Project 020302091.061004
Reported 03/15/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
87992- 1	TBLB	03/05/93	03/09/93	Water
87992- 2	RBMW-4	03/05/93	03/09/93	Water
87992- 3	MW-4	03/05/93	03/15/93	Water
87992- 5	MW-5	03/05/93	03/11/93	Water
87992- 7	MW-1	03/05/93	03/11/93	Water
87992- 9	MW-2	03/05/93	03/15/93	Water
87992-11	MW-6	03/05/93	03/11/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	87992- 1	87992- 2	87992- 3	87992- 5	87992- 7
Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Xylenes:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Diesel:	NA	NA	ND<50	ND<50	ND<50
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	87992- 9	87992-11
Gasoline:	ND<50	480
Benzene:	ND<0.5	76
Toluene:	ND<0.5	0.9
Ethyl Benzene:	ND<0.5	3.1
Xylenes:	ND<0.5	7.1
Diesel:	ND<50	150*
Concentration:	ug/L	ug/L

* DIESEL RANGE CONCENTRATION REPORTED .THE PATTERN OF PEAKS OBSERVED IN THE CHROMATOGRAM IS TYPICAL OF HYDROCARBONS LIGHTER THAN DIESEL.

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 87992

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	103/100%	3%	70-130
Benzene:	108/105%	3%	70-130
Toluene:	105/101%	4%	70-130
Ethyl Benzene:	110/104%	6%	70-130
Xylenes:	109/103%	6%	70-130
Diesel:	121/121%	0%	70-130

Richard Srna, Ph.D.
Laboratory Director

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

87990

Chain-of-Custody Record

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

Chevron Facility Number: 9-6991
Facility Address: 2920 Castro Valley Blvd
Consultant Project Number: 020302091 061004
Consultant Name: Groundwater Technology, Inc.
Address: 4057 Port Chicago Hwy, Concord, CA
Project Contact (Name): Ms, Sandra L. Lindsey
(Phone): 671-2387 (Fax Number): 685-9148

Chevron Contact (Name): Mr. Mark Miller
(Phone): 510-842-8134
Laboratory Name: GTEL
Laboratory Release Number: 483-7960
Samples Collected by (Name): Greg MASON
Collection Date: 3/5-93
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)	BTEX + TPH GAS (8020 + 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)	HOLD					Remarks
TBLB	1	1	W	D		HCl		X													TPH Diesel NO Acid
RBMW-4	2	1				HCl		X													
MW-4	3	4					NONE	X	X												
RBMW-5	4	1																			
MW-5	5	4						X	X												
RBMW-1	6	1																			
MW-1	7	4						X	X												
RBMW-2	8	1																			
MW-2	9	4						X	X												
RBMW-6	10	1																			
MW-6	11	4					W	X	X												

Please Initial:
Samples Stored on Ice: J
Appropriate Containers: X
Samples preserved: X
VOA's w/ headspace: ✓
Comments: X

SC

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GTI				3-8-93 9:00
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

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