Chevron

August 31, 1994

Chevron U.S.A. Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Marketing – Northwest Region
Phone 510 842 9500

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94501

Re: Former Chevron Service Station #9-1153
3126 Fernside Boulevard, Alameda, CA

Dear Ms. Shin:

Enclosed is the quarterly Groundwater Monitoring and Sampling Activities report dated August 5, 1994, 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) and BTEX. Benzene was detected in monitor wells C-1, MW-5, and MW-7 at concentrations of 19000, 350, and 770 ppb, respectively. Depth to ground water was measured at approximately 3.2 feet to 5.1 feet below grade and the direction of flow is to the east.

As we discussed in our meeting of August 29, 1994, our consultant Weiss Associates is currently preparing a comprehensive site review document which will call out appropriate future actions for this site. We anticipate submitting this document to your office by September 23, 1994.

We will continue to monitor and sample all wells at this site on a quarterly basis. **The ground water extraction system has been temporarily shut down due to a failed pressure regulator.** Weiss Associates will include an analysis of system effectiveness in their site review and propose appropriate next actions in regards to this system.

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

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Kevin Graves, RWQCB - Bay Area
Mr. Mike Cooke - Weiss Associates
Mr. Eric Anderson - Weiss Associates
Ms. B.C. Owen

Mr. Larry Bolton
State Farm Insurance
2509 Santa Clara Avenue
Alameda, CA 94501

File: 9-1153 QM8

GROUNDWATER TECHNOLOGY, INC.

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

August 5, 1994 Project No. 020104100

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

SUBJECT: *Groundwater Monitoring and Sampling Activities*
Chevron Service Station No. 9-1153
3126 Fernside Boulevard, Alameda, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the quarterly groundwater monitoring and sampling data collected on July 1, 1994. The six groundwater monitoring wells at the site were gauged 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 and a summary of groundwater monitoring data are presented in attachments 1 and 2, respectively. After the DTW was measured, each monitoring well was purged and sampled. Groundwater monitoring and sample collection protocol and field data sheets are presented in attachment 3. The groundwater samples collected were analyzed for benzene, toluene, ethylbenzene, and xylenes and for total petroleum hydrocarbons-as-gasoline. Results of the chemical analyses are summarized in attachment 2. The laboratory report and chain-of-custody record are included in attachment 4. 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 contact our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

Kenneth P. Johnson
Project Manager

PR

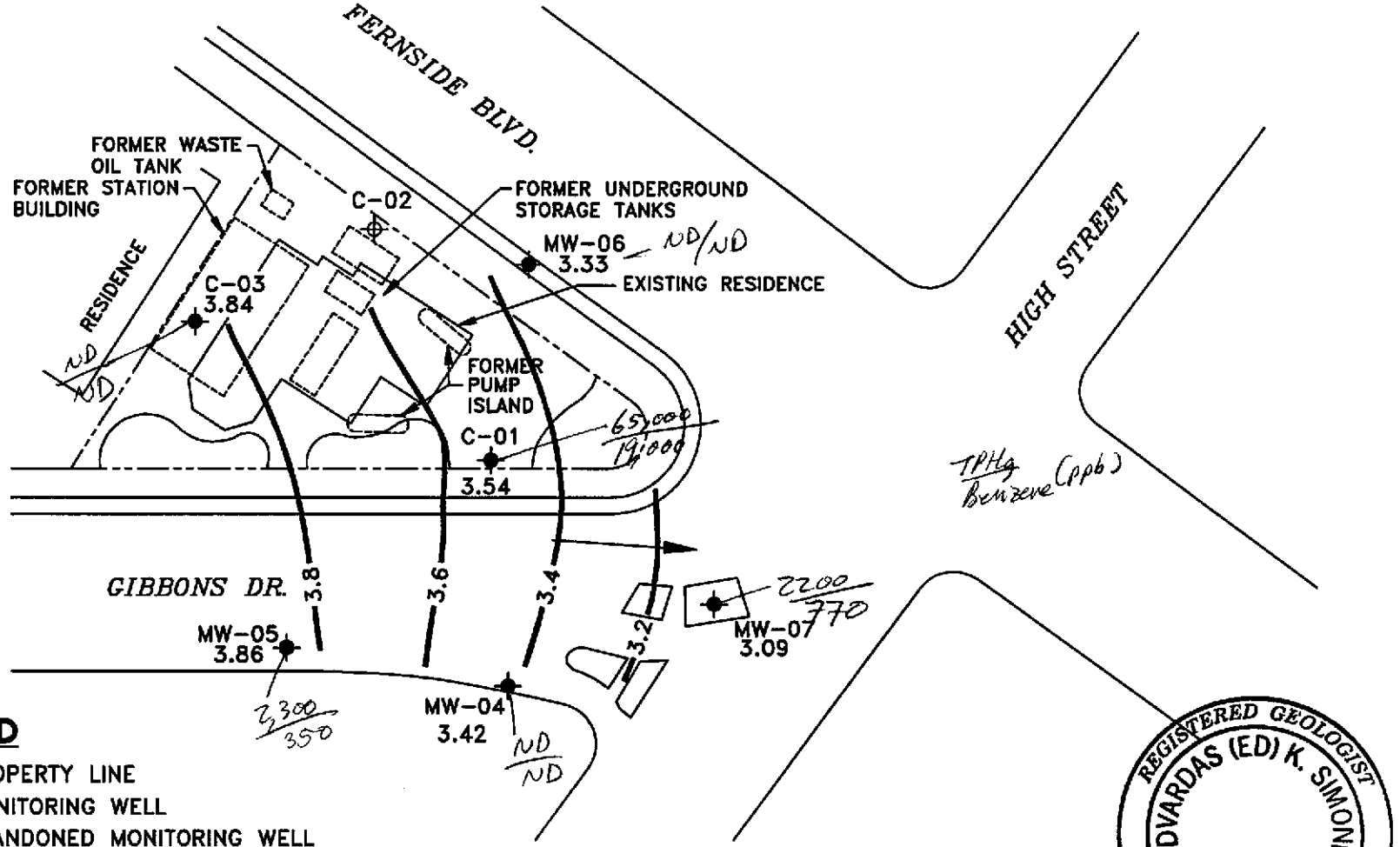
For:
Wendell W. Lattz
Vice President, General Manager
West Region

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Protocol and Field Data Sheets
Attachment 4 Laboratory Report

4100qmsr.394

ATTACHMENT 1

Figure



LEGEND

———	PROPERTY LINE
✦	MONITORING WELL
⊕	ABANDONED MONITORING WELL
NA	NOT AVAILABLE
X.XX	POTENTIOMETRIC SURFACE ELEVATION (FT)
⌒	POTENTIOMETRIC SURFACE CONTOUR
←	GROUNDWATER FLOW DIRECTION

NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

REGISTERED GEOLOGIST
EDVARDAS (ED) K. SIMONIS
No. 4422
STATE OF CALIFORNIA

GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

CLIENT: CHEVRON U.S.A. PRODUCTS CO.
SERVICE STATION NO. 9-1153

LOCATION: 3126 FERNSIDE BLVD.
ALAMEDA, CALIFORNIA

POTENTIOMETRIC SURFACE MAP (7/1/94)

FILE:	PROJECT NO.:	REV.:	DES.:	DET.:	DATE:	PM:	PE/RG:	FIGURE:
4100PSM, (1:40)	02010-4100		SS	SS	7/12/94	KS	JWS	1

ATTACHMENT 2

Table

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Chevron Service Station No. 9-1153
3126 Fernside Boulevard, Alameda, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-1	08/18/86	---	---	---	---	---	4.10	---	---
	09/04/86	15,000	760	820	1,500[1]	---[1]	---	---	---
	07/22/87	1,100	250	7	40[1]	---[1]	---	---	---
	05/03/89	6,900	3,800	190	229[1]	---[1]	4.46	---	---
	12/04/89	17,000	8,000	490	470[1]	---[1]	4.16	---	---
	02/14/90	19,000	12,000	990	1,050[1]	---[1]	3.64	---	---
	03/07/90	---	4,260	261	430[1]	---[1]	3.36	---	---
	09/06/91	21,000	10,000	100	240	560	4.43	0.00[2]	---
	12/15/91	20,000	4,900	43	110	330	4.78	0.00[2]	---
	03/03/92	13,000	5,800	730	340	1,200	2.39	0.00[2]	---
4.08	06/04/92	34,000	9,400	350	290	1,200	4.08	0.00	0.00
	10/13/92	24,000	11,000	98	280	530	4.75	0.00	-0.67
	01/11/93	7,100	1,500	130	150	700	2.26	Sheen	1.82
	04/14/93	29,000	7,300	4,000	640	2,300	2.90	Sheen	1.18
	07/13/93	650,000	27,000	18,000	6,300	29,000	3.97	Sheen	0.11
	10/19/93	40,000	12,000	730	1,100	3,600	4.50	0.00	-0.42
7.50	11/30/93	---	---	---	---	---	4.27	0.00	3.23
	01/27/94	36,000	8,600	220	670	1,900	3.35	0.00	4.15
	04/07/94	53,000	12,000	3,500	480	3,300	3.42	0.00	4.08
	07/01/94	65,000	19,000	5,900	1,000	9,000	3.96	0.00	3.54
C-2	08/18/86	---	---	---	---	---	---	---	---
	09/04/86	1,100	49	18	84[1]	---[1]	---	---	---
	07/22/87	<50	1.8	<1.0	<4.0[1]	---[1]	---	---	---
	05/03/89	**Abandoned**	---	---	---	---	---	---	---

GROUNDWATER TECHNOLOGY ®

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Chevron Service Station No. 9-1153
3126 Fernside Boulevard, Alameda, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
C-3	08/18/86	---	---	---	---	---	4.00	---	---
	09/04/86	50	3.2	5.4	5.8[1]	---[1]	---	---	---
	07/22/87	<50	<0.5	<1.0	<4.0[1]	---[1]	---	---	---
	05/03/89	<50	<0.5	<1.0	<2.0[1]	---[1]	4.15	---	---
	12/04/89	<250	<0.5	<0.5	<0.5[1]	---[1]	4.24	---	---
	02/14/90	<50	<0.5	<0.5	<0.5[1]	---[1]	3.57	---	---
	03/07/90	NA	<5	<5	<5[1]	---[1]	3.31	---	---
	09/06/91	<50	<0.5	<0.5	<0.5	<0.5	4.59	0.00[2]	---
	12/15/91	<50	<0.5	<0.5	<0.5	<0.5	4.84	0.00[2]	---
	03/03/92	<50	<0.5	<0.5	<0.5	<0.5	2.17	0.00[2]	---
4.41	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	4.01	0.00	0.40
	10/13/92	<50	<0.5	<0.5	<0.5	<0.5	4.79	0.00	-0.38
	01/11/93	<50	<0.5	<0.5	<0.5	<0.5	2.01	0.00	2.40
	04/14/93	<50	<0.5	<0.5	<0.5	<0.5	2.76	0.00	1.65
	07/13/93	<50	<0.5	<0.5	<0.5	<1.5	3.96	0.00	0.45
	10/19/93	66	12	1.4	1.0	8.4	4.53	0.00	-0.12
7.83	11/30/93	---	---	---	---	---	4.04	0.00	3.79
	01/27/94	<50	<0.5	<0.5	<0.5	<0.5	3.17	0.00	4.66
	04/07/94	<50	<0.5	<0.5	<0.5	<0.5	3.20	0.00	4.63
	07/01/94	<50	<0.5	<0.5	<0.5	<0.5	3.99	0.00	3.84
MW-4	06/04/92	<50	0.8	<0.5	<0.5	<0.5	3.63	0.00	-0.05
3.58	10/13/92	---	---	---	---	---	---	---	---
	01/11/93	<50	<0.5	<0.5	<0.5	<0.5	1.89	0.00	1.69
	04/14/93	<50	<0.5	<0.5	<0.5	<1.5	2.20	0.00	1.38
	07/13/93	54	2.6	1.6	<0.5	<1.5	3.51	0.00	0.07
	10/19/93	<50	<0.5	<0.5	<0.5	<0.5	4.22	0.00	-0.64
7.01	11/30/93	---	---	---	---	---	4.01	0.00	3.00
	01/27/94	<50	<0.5	<0.5	<0.5	<0.5	2.89	0.00	4.12
	04/07/94	<50	<0.5	<0.5	<0.5	<0.5	3.06	0.00	3.95
	07/01/94	<50	<0.5	<0.5	<0.5	<0.5	3.59	0.00	3.42

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Chevron Service Station No. 9-1153
3126 Fernside Boulevard, Alameda, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-5	06/04/92	560	110	0.5	37	2.2	3.25	0.00	0.36
3.61	10/13/92	1,200	150	<2.5	84	8.6	4.20	0.00	-0.59
	01/11/93	1,300	48	1.0	83	33	1.30	0.00	2.31
	04/14/93	2,600	240	6.1	250	170	1.20	0.00	2.41
	07/13/93	1,700	260	7.8	160	100	3.15	0.00	0.46
	10/19/93	1,900	190	3.3	200	93	3.82	0.00	-0.21
7.04	11/30/94	---	---	---	---	---	3.56	0.00	3.48
	01/27/94	4,000	100	12	210	110	2.42	0.00	4.62
	04/07/94	2,600	170	10	150	88	2.33	0.00	4.71
	07/01/94	2,300	350	9.1	110	76	3.18	0.00	3.86
MW-6	06/04/92	210	54	<0.5	1.9	2.4	3.89	0.00	-0.04
3.85	10/13/92	*10,000	5,300	<10	70	<10	4.56	0.00	-0.71
	01/11/93	100	50	<0.5	<0.5	<0.5	2.36	0.00	1.49
	04/14/93	<50	<0.5	<0.5	<0.5	<0.5	3.15	0.00	0.70
	07/13/93	<50	1.8	<0.5	<0.5	<1.5	3.94	0.00	-0.09
	10/19/93	320	150	<0.5	0.8	0.5	4.40	0.00	-0.55
7.27	11/30/94	---	---	---	---	---	4.16	0.00	3.11
	01/27/94	120	45	<0.5	<0.5	<0.5	3.33	0.00	3.94
	04/07/94	<50	<0.5	<0.5	<0.5	<0.5	3.43	0.00	3.84
	07/01/94	<50	<0.5	<0.5	<0.5	<0.5	3.94	0.00	3.33

TABLE 1
HISTORICAL GROUNDWATER MONITORING AND ANALYTICAL RESULTS
Chevron Service Station No. 9-1153
3126 Fernside Boulevard, Alameda, California

Well ID/ Elev	Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-7	11/30/93	480	110	41	4.4	38	5.33	0.00	2.89
8.22	01/27/94	120	21	1.1	2.2	4.8	4.50	0.00	3.72
	04/07/94	2,600	630	39	56	94	4.62	0.00	3.60
	07/01/94	2,200	770	42	<10	92	5.13	0.00	3.09
TMW-1	11/11/93	<1	<0.5	<0.5	<0.5	<0.5	---	0.00	----

TBLB	02/14/90	<50	<0.5	1.1	<0.5	<0.5	---	---	---
	09/06/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	12/15/91	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	03/03/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	06/04/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	10/13/92	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/11/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/14/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/13/93	<50	<0.5	<0.5	<0.5	<1.5	---	---	---
	10/19/93	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	01/27/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	04/07/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---
	07/01/94	<50	<0.5	<0.5	<0.5	<0.5	---	---	---

TPH-G = Total petroleum hydrocarbons-as-gasoline
DTW = Depth to water
SPT = Separate-phase hydrocarbon thickness
WTE = Groundwater elevation in feet above mean sea level
--- = Not applicable/not sampled/not measured
* = Gasoline range concentration reported. The chromatogram shows only a single peak in the gasoline range.
1 = Ethylbenzene and xylenes were reported together.
2 = Product thickness was measured with an MMC flexi-dip interface probe.

Before June 4, 1992, the top-of-casing elevations were unknown.
Analytical results are in micrograms per liter or parts per billion.

ATTACHMENT 3

Groundwater Monitoring and Sample Collection Protocol
and
Field Data Sheets

GROUNDWATER TECHNOLOGY GROUNDWATER MONITORING AND SAMPLE COLLECTION PROTOCOL

Groundwater Monitoring

Groundwater monitoring is accomplished using a INTERFACE PROBE™ Well Monitoring System. The INTERFACE PROBE™ Well Monitoring System is a hand held, battery operated device for measuring the depth to separate-phase hydrocarbons and depth to water. The INTERFACE PROBE™ Well Monitoring System consists of a dual-sensing probe which utilizes an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products.

Monitoring is accomplished by measuring from the surveyed top of well casing or grade to groundwater and separate-phase hydrocarbons if present. The static water elevation is then calculated for each well and a potentiometric surface map is constructed. If separate-phase hydrocarbons are detected the water elevation is adjusted by the following calculation:

(Product thickness) x (0.8) + (Water elevation) = Corrected water elevation

Groundwater monitoring wells are monitored in order of wells with lowest concentrations of volatile organic compounds to wells with the highest concentrations, based upon historical concentrations. If separate-phase hydrocarbons are encountered in a well, the product is visually inspected to confirm and note color, amount, and viscosity. Monitoring equipment is washed with laboratory grade detergent and rinsed with distilled or deionized water before monitoring each well.

Groundwater Sampling

Before groundwater samples are collected, sufficient water is purged from each well to ensure representative formation water is entering the well. Wells are purged and sampled in the same order as monitoring, from wells with the lowest concentrations of volatile organic compounds to wells with the highest concentrations. Wells are purged using either a polyvinyl chloride (PVC) bailer fitted with a check valve or with a stainless steel submersible Grundfos pump. The purge equipment is decontaminated before use in each well by washing with laboratory grade detergent and tripled rinsing with deionized or distilled water. A minimum of 3 well-casing volumes of water are removed from each well while pH, electrical conductivity, and temperature are recorded to verify that "fresh" formation water is being sampled and the parameters have stabilized. If the well is low yielding, it may be purged dry and sampled before 3 casing volumes are purged. The wells are then allowed to recharge to approximately 80 percent of the initial water level before a sample is collected.

Groundwater samples are collected from each well using a new, prepackaged disposable bailer and string. The water sample is decanted from the bailer into laboratory-provided containers (appropriate for the analyses required) so that there is no headspace in the containers. Samples collected for benzene, toluene, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH)-as-gasoline analyses are collected in 40-milliliter vials fitted with Teflon® septum lids. Samples are preserved with hydrochloric acid (HCL) to a pH of less than 2. Dissolved metals samples are filtered through a 0.45-micron paper filter in the field and preserved as required before submitting to the laboratory for analyses. All samples are labeled immediately upon collection and logged on the chain-of-custody record. Sample label and chain-of-custody recorded information includes the project name and number, sample identification, date and time of collection, analyses requested, and the sampler's name. Sample bottles are placed in plastic bags (to protect the bottles and labels) and on ice (frozen water) in an insulated cooler and are shipped under chain-of-custody protocol to the laboratory.

The chain-of-custody record documents who has possession of the samples until the analyses is performed. Other pertinent information is also noted for the laboratory use on the chain-of-custody record.

Trip blanks (TBLBs) are used for each project as a quality assurance/quality control measure. The TBLBs are prepared by the laboratory and are placed in the insulated cooler and accompany the field samples throughout the sampling event.

Project Name: Chevron - Fernside

Site Address: 3126 Fernside Ave, Oakland

Project Number: 020104100.0610

Date: 7/1/94

Page 1 of 6

Project Manager: Ken Johnson

Well ID: C-3

Well Diameter: 3

DTW Measurements:
Initial: 3.99
Recharge:

Calc Well Volume: 6.24 gal
Well Volume: 18.72 gal

21.00 - 3.99 = 17.01 x .367 = 6.24 x 3 = 18.72

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:
Other:

Time	Temp ~~C~~ F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0634	16.2	0.40	6.36	5		cloudy Dk. Brown
0638	16.1	0.45	6.75	10		"
0642	16.0	0.46	6.79	15		"
0646	16.0	0.48	6.83	19		"

Project Name: Chevron - Fernside

Site Address: 3126 Fernside Ave, Oakland

Project Number: 020104100.0610

Date: 7/1/94

Page 2 of 6

Project Manager: Ken Johnson

Well ID: MW-7

Well Diameter: 2

DTW Measurements:
Initial: 5.13
Recharge:

Calc Well Volume: 1.59 gal
Well Volume: 4.77 gal

15.00 - 5.13 = 9.87 x .163 = 1.59 x 3 = 4.77

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:
Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0656	21.8	0.76	6.49	1		Cloudy Green - Gray
0659	21.5	0.77	6.69	3		"
0701	21.1	0.76	6.81	5		"
						ODER

Project Name: Chevron - Fernside

Date: 9/1/94

Site Address: 3126 Fernside Ave, Oakland

Page 3 of 6

Project Number: 020104100.0610

Project Manager: Ken Johnson

Well ID: MW-4

Well Diameter: 2

DTW Measurements:
Initial: 3.59
Recharge:

Calc Well Volume: 1.85 gal
Well Volume: 5.55 gal

15.00 - 3.59 = 11.41 x .163 = 1.85 x 3 = 5.55

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI:
Hydac:
Omega:
Other:

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0710	18.1	0.88	6.27	1		cloudy brown
0712	18.1	0.88	6.35	3		"
0715	18.0	0.87	6.36	6		"

Project Name: Chevron - Fernside

Date: 1/19/94

Site Address: 3126 Fernside Ave, Oakland

Page 4 of 6

Project Number: 020104100.0610

Project Manager: Ken Johnson

Well ID: MW-6

DTW Measurements:
Initial: 3.94 Calc Well Volume: 1.80 gal
Recharge: _____ Well Volume: 5.40 gal

Well Diameter: 2

15.00 - 3.94 = 11.06 × .163 = 1.80 × 3 = 5.40

Purge Method
Peristaltic_____
Gear Drive_____
Submersible_____

Pump Depth_____ ft.
Hand Bailed X
Air Lift_____
Other_____

Instruments Used
YSI: X
Hydac: _____
Omega: _____
Other: _____

Time	Temp X C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0726	21.0	0.51	6.09	1		cloudy brown/gray
0729	20.1	0.75	6.30	3		"
0731	19.4	0.87	6.48	5		"

Project Name: Chevron - Fernside

Date: 1/1/94

Site Address: 3126 Fernside Ave, Oakland

Page 5 of 6

Project Number: 020104100.0610

Project Manager: Ken Johnson

Well ID: MW-5

DTW Measurements:
Initial: 3.18
Recharge:

Calc Well Volume: 1.92 gal
Well Volume: 5.76 gal

Well Diameter: 2

15.00 - 3.18 = 11.82 x .163 = 1.92 x 3 = 5.76

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed X
Air Lift
Other

Instruments Used
YSI: X
Hydac:
Omega:
Other:

Time	Temp X C F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0739	20.1	0.67	6.29	1		cloudy
0741	20.0	0.64	6.37	3		cloudy brn gray
0745	20.0	0.63	6.42	6		4
						ODE

Project Name: Chevron - Fernside

Date: 7/1/94

Site Address: 3126 Fernside Ave, Oakland

Page 6 of 6

Project Number: 020104100.0610

Project Manager: Ken Johnson

Well ID: C-1

Well Diameter: 3

DTW Measurements:
Initial: 3.86 Calc Well Volume: 5.88 gal
Recharge: Well Volume: 17.64 gal

20.00 - 3.86 = 16.04 + .367 = 5.88 + 3 =

Purge Method
Peristaltic
Gear Drive
Submersible

Pump Depth ft.
Hand Bailed ✓
Air Lift
Other

Instruments Used
YSI: ✓
Hydac:
Omega:
Other:

Time	Temp ~~F~~ C / F	Conductivity	pH	Purge Volume Gallons	Turbidity	Comments
0754	22.1	0.86	6.39	5		cloudy Dk. Grey Silt
0757	21.1	0.97	6.57	10		"
0800	20.3	1.00	6.60	15		"
0802	20.0	0.99	6.64	18		"

ATTACHMENT 4

Laboratory Report

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

GROUNDWATER TECHNOLOGY, INC.
Attn: TIM WATCHERS

Project 9-1153
Reported 07/12/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
30623- 1	TB-LB	07/01/94	07/11/94	Water
30623- 2	C-3	07/01/94	07/11/94	Water
30623- 3	MW-7	07/01/94	07/11/94	Water
30623- 4	MW-4	07/01/94	07/11/94	Water
30623- 5	MW-6	07/01/94	07/11/94	Water
30623- 6	MW-5	07/01/94	07/11/94	Water
30623- 7	C-1	07/01/94	07/11/94	Water

RESULTS OF ANALYSIS

Laboratory Number:	30623- 1	30623- 2	30623- 3	30623- 4	30623- 5
Gasoline:	ND<50	ND<50	2200	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	770	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	42	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<10	ND<0.5	ND<0.5
Total Xylenes:	ND<0.5	ND<0.5	92	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	30623- 6	30623- 7
Gasoline:	2300	65000
Benzene:	350	19000
Toluene:	9.1	5900
Ethyl Benzene:	110	1000
Total Xylenes:	76	9000
Concentration:	ug/L	ug/L

Certified Laboratories
825 Arnold Dr., Suite 114 • Martinez, California 94553 • (510) 313-0850 / fax (510) 229-1526

Superior Precision Analytical, Inc.
A member of ESSCON Environmental Support Service Consortium

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: 30623

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:	76/77	1%	70-130
Benzene:	72/74	3%	70-130
Toluene:	80/82	2%	70-130
Ethyl Benzene:	82/84	2%	70-130
Total Xylenes:	84/86	2%	70-130

Michael R. Verone
Senior Chemist

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No   30623

Chain-of-Custody-Record

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

Chevron Facility Number: 9-1153
Facility Address: 3126 Fernside
Consultant Project Number: 020104100
Consultant Name: Groundwater Technology, Inc.
Address: 4057 Port Chicago Hwy, Concord, CA. 94520
Project Contact (Name): Tim Watchers
(Phone) 510-671-2387 (Fax Number)

Chevron Contact (Name): Tim Watchers
(Phone): (510) 671-2387
Laboratory Name: Superior Analytical
Laboratory Release Number: 590-1420
Samples Collected by (Name): J. Nelson
Collection Date: 7/1/94
Signature: [signature]

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)	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)					Remarks
TBLB	1	2	W	G	0815	HCL	Y	X												*Analyze MW6
C-3	2	3			0820			X												BTEX/TPHG on
MW-7	3	3			0825			X												5 DAY TURNAROUND
MW-4	4	3			0830			X												
MW-6	5	6			0840			X			X									Alt 5010 on hold. If single peak
MW-5	6	3			0850			X												shows up, contact
C-1	7	3			0855			X												Ken Johnson

NOTE: Do NOT BILL TB-LB SAMPLES

Samples ... yes / yes / yes / N/A

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	GTI	7/1/94	[signature]		
[signature]	GTI	7-5-94	[signature]	Aero	7/5 12:45
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature): [signature]		07/5/94 1258pm

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