



Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address PO Box 5004, San Ramon, CA 94583-0804

50 MAR 17 1992

Marketing Department

March 12, 1992

Mr. Edgar Howell
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Chevron Service Station #9-1583
5509 Martin Luther King Way, Oakland**

609

Dear Mr. Howell:

Enclosed we are forwarding the Quarterly Ground Water Sampling Report dated February 28, 1992, 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 and BTEX. Benzene was detected in monitor wells MW-1, MW-2 and MW-3 only at concentrations of 8,900, 390 and 2,800 ppb, respectively. These concentrations are not consistent with the previous concentrations reported last quarter. After completion of the next scheduled sampling events, the data will be evaluated to assess if the results reported in this event were anomalous. Depth to ground water was measured at approximately 9 to 13-feet below grade, and the direction of flows to the northwest.

Chevron will continue to sample this site and report findings on a quarterly basis.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

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

Nancy Vukelich
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Eddy So, RWQCB-Bay Area
Mr. S.A. Willer
File (9-1583Q3)

**GROUNDWATER
TECHNOLOGY, INC.**

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

February 28, 1992

Job No. 020302228.061022

Ms. Nancy Vukelich
Chevron U.S.A. Inc.
P. O. Box 5004
San Ramon, CA 94583-0804

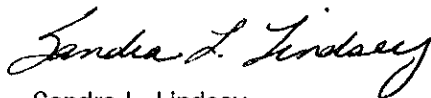
SUBJECT: GROUNDWATER MONITORING AND SAMPLING ACTIVITIES
CHEVRON SERVICE STATION NO. 9-1583
5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

Dear Ms. Vukelich:

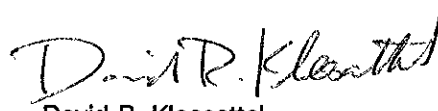
Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on February 5, 1992. The six groundwater monitoring wells at this site were gauged to determine depth to groundwater (DTW) and to check for the presence of separate-phase hydrocarbons. A potentiometric surface map (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments A and B, respectively. After measuring the DTW, each monitoring well was purged and sampled. The groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH)-as-gasoline. Results of the chemical analyses are summarized in Table 1. Laboratory reports and chain-of-custody records are included in Attachment C. Monitoring well purge water was stored on site in a labeled 55-gallon drum. The purge water has been scheduled to be removed by a Chevron-approved contractor for transport and recycling.

Groundwater Technology is pleased to assist Chevron on this project. If you have any questions or comments, please call our Concord office.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.



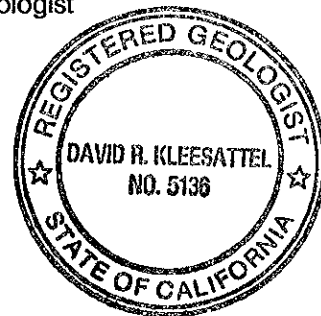
Sandra L. Lindsey
Project Manager



David R. Kleesattel
Registered Geologist
No. 5136

Attachments: Attachment A - Figure 1
Attachment B - Table 1
Attachment C - Laboratory Reports

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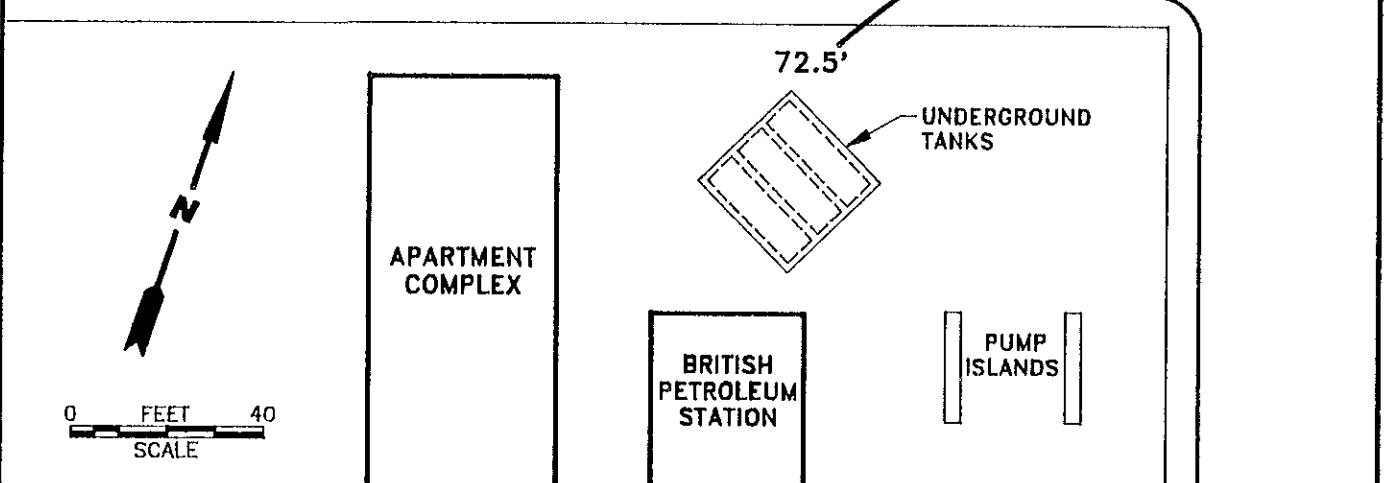
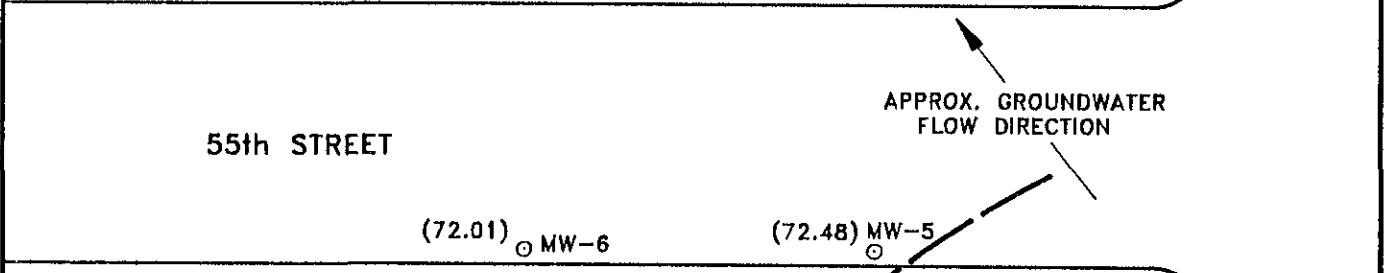
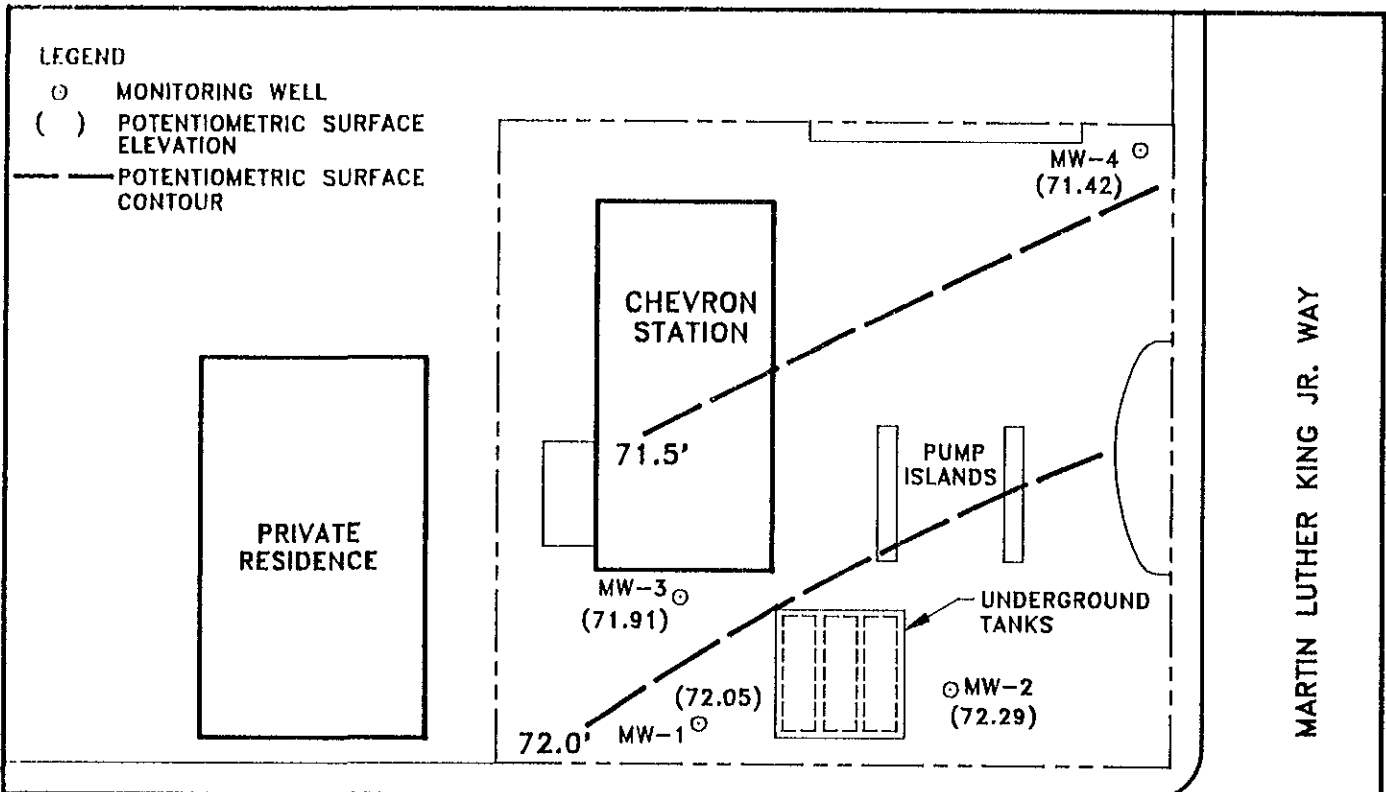


ATTACHMENT A

FIGURE

LEGEND

- MONITORING WELL
- () POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR



		GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		POTENTIOMETRIC SURFACE MAP (2/5/92)			
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION #9-1583			LOCATION: 5509 MARTIN LUTHER KING JR. WAY OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 2/21/92	
PM <i>SH</i>	PE/RG <i>DRK</i>	DESIGNED FH	DETAILED ML	ACAD FILE: PSM2592/SP292	PROJECT NO.: 020302228	FIGURE: 1	

ATTACHMENT B

TABLE

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
CHEVRON SERVICE STATION NO. 9-1583
5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

WELL ID/ ELEV	DATE	TPH+AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	WTE (ft)	SPT (ft)
MW-1 81.97/ 82.42*	12/22/83	-	-	-	-	-	10.25	71.72	0.0
	12/30/83	-	-	-	-	-	9.17	72.80	0.0
	03/12/90	50,000	3,000	7,300	1,900	18,000	10.08	71.89	0.0
	03/25/90	-	-	-	-	-	10.46	71.51	0.0
	10/18/90	-	-	-	-	-	-	-	-
	10/31/90	-	-	-	-	-	-	-	-
	11/16/90	-	-	-	-	-	11.58	70.84	0.0
	02/08/91	100,000	4,200	8,400	16,000	2,600	10.11	72.31	0.0
	05/08/91	31,000	200	66	670	2,000	10.45	71.97	0.0
	08/12/91	17,000	81	7.2	270	710	11.23	71.19	0.0
	11/07/91	7,100	24	6	130	170	10.70	71.72	0.0
	02/05/92	110,000	8,900	14,000	2,700	12,000	10.37	72.05	0.0
	MW-2 83.48	12/22/83	-	-	-	-	-	10.50	72.98
12/30/83		-	-	-	-	-	9.92	73.56	0.0
03/12/90		800	400	22	18	55	11.02	72.46	0.0
03/25/90		-	-	-	-	-	11.33	72.15	0.0
10/18/90		-	-	-	-	-	12.31	71.17	0.0
10/31/90		-	-	-	-	-	-	-	-
11/16/90		-	-	-	-	-	-	-	-
02/08/91		4,600	820	440	720	210	11.05	72.43	0.0
05/08/91		<50	5	<0.5	<0.5	<0.5	11.36	72.12	0.0
08/12/91		<50	<0.5	<0.5	<0.5	<0.5	11.97	71.51	0.0
11/07/91		<50	<0.5	<0.5	<0.5	<0.5	11.50	71.98	0.0
02/05/92	1,700	390	170	60	200	11.19	72.29	0.0	

TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
CHEVRON SERVICE STATION NO. 9-1583
5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	WTE (ft)	SPT (ft)
MW-3 84.36/ 84.38	12/22/83	-	-	-	-	-	11.58	72.78	0.0
	12/30/83	-	-	-	-	-	11.17	73.19	0.0
	03/12/90	47,000	1,000	9,900	1,700	9,800	12.14	72.22	0.0
	03/25/90	-	-	-	-	-	12.55	71.81	0.0
	10/18/90	-	-	-	-	-	-	-	-
	10/31/90	-	-	-	-	-	-	-	-
	11/16/90	-	-	-	-	-	13.62	70.76	0.0
	02/08/91	58,000	4,900	5,200	9,500	2,000	12.18	72.20	0.0
	05/08/91	50,000	2,100	1,400	2,000	9,400	12.52	71.86	0.0
	08/12/91	15,000	1,300	160	920	1,900	13.27	71.11	0.0
	11/07/91	26,000	1,000	310	1,900	5,900	12.81	71.57	0.0
02/05/92	35,000	2,800	1,300	1,500	4,700	12.47	71.91	0.0	
MW-4/ 84.25	10/18/90	-	-	-	-	-	15.75	68.50	0.0
	10/31/90	<50	<0.5	<0.5	<0.5	1	13.90	70.35	0.0
	11/16/90	-	-	-	-	-	14.25	70.00	0.0
	02/08/91	60	17	2	12	<0.5	12.32	71.93	0.0
	05/08/91	65	<0.5	<0.5	<0.5	<0.5	12.23	72.02	0.0
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	13.93	70.32	0.0
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	13.42	70.83	0.0
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	12.83	71.42	0.0
MW-5 81.95	10/18/90	-	-	-	-	-	10.78	71.17	0.0
	10/31/90	110	<0.5	<0.5	<0.5	<0.5	10.63	71.32	0.0
	11/16/90	-	-	-	-	-	10.68	71.27	0.0
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	9.17	72.78	0.0
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	8.68	73.27	0.0
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	10.33	71.62	0.0
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	9.76	72.19	0.0
	02/05/92	69*	<0.5	<0.5	<0.5	<0.5	9.47	72.48	0.0

**TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
CHEVRON SERVICE STATION NO. 9-1583
5509 MARTIN LUTHER KING JR. WAY, OAKLAND, CALIFORNIA**

WELL ID/ ELEV	DATE	TPH-AS- GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	DTW (feet)	WTE (ft)	SPT (ft)
MW-6	10/18/90	-	-	-	-	-	9.79	70.81	0.0
	10/31/90	<50	<0.5	<0.5	<0.5	3	9.69	70.91	0.0
80.60	11/16/90	-	-	-	-	-	9.74	70.86	0.0
	02/08/91	-	-	-	-	-	-	-	0.0
	05/08/91	56	<0.5	<0.5	<0.5	<0.5	9.54	71.06	0.0
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	9.50	71.10	0.0
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	8.89	71.71	0.0
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	8.59	72.01	0.0
TRIP BLANK	03/12/90	<50	<0.3	<0.3	<0.3	<0.6	-	-	-
	02/08/91	<50	<0.5	<0.5	<0.5	<0.5	-	-	-
	05/08/91	<50	<0.5	<0.5	<0.5	<0.5	-	-	-
	08/12/91	<50	<0.5	<0.5	<0.5	<0.5	-	-	-
	11/07/91	<50	<0.5	<0.5	<0.5	<0.5	-	-	-
	02/05/92	<50	<0.5	<0.5	<0.5	<0.5	-	-	-

- = Constituent not analyzed/measurement not taken
- ND = Not detected at method detection limit (MDL)
- DTW = Depth to water
- SPT = Separate-phase hydrocarbon thickness
- WTE = Water table elevation
- 81.97/82.42 = March 3, 1990 survey/November 30, 1990 survey
- * = Gasoline range concentration reported. A non-standard gasoline pattern was observed in the chromatogram.

All elevations are given as feet above mean sea level.
Analytical results in micrograms per liter μ /L, or parts per billion

ATTACHMENT C
LABORATORY ANALYTICAL REPORTS



Superior Precision Analytical, Inc.

1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

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

LABORATORY NO.: 12777
CLIENT: Groundwater Technology Inc.
CLIENT JOB NO.: 020302228-061004

DATE RECEIVED: 02/07/92
DATE REPORTED: 02/11/92

Page 1 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12777- 1	TRIP BLANK	02/07/92	02/07/92
12777- 2	RBMW-5	02/07/92	02/07/92
12777- 3	MW-5	02/07/92	02/10/92
12777- 4	RBMW-6	02/07/92	/ /
12777- 5	MW-6	02/07/92	02/07/92
12777- 6	RBMW-4	02/07/92	/ /
12777- 7	MW-4	02/07/92	02/07/92
12777- 8	RBMW-2	02/07/92	/ /
12777- 9	MW-2	02/07/92	02/07/92
12777-10	RBMW-1	02/07/92	/ /

Laboratory Number:	12777	12777	12777	12777	12777
	1	2	3	4	5

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	69*	NA	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5
XYLENES:	ND<0.5	ND<0.5	ND<0.5	NA	ND<0.5

Laboratory Number:	12777	12777	12777	12777	12777
	6	7	8	9	10

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	NA	ND<50	NA	1700	NA
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	NA	ND<0.5	NA	390	NA
TOLUENE:	NA	ND<0.5	NA	170	NA
ETHYL BENZENE:	NA	ND<0.5	NA	60	NA
XYLENES:	NA	ND<0.5	NA	200	NA



Superior Precision Analytical, Inc.

1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

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

LABORATORY NO.: 12777
CLIENT: Groundwater Technology Inc.
CLIENT JOB NO.: 020302228-061004

DATE RECEIVED: 02/07/92
DATE REPORTED: 02/11/92

Page 2 of 3

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12777-11	MW-1	02/07/92	02/10/92
12777-12	RBMW-3	02/07/92	/ /
12777-13	MW-3	02/07/92	02/07/92

Laboratory Number:	12777	12777	12777
	11	12	13

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)		
OIL AND GREASE:	NA	NA	NA
TPH/GASOLINE RANGE:	110000	NA	35000
TPH/DIESEL RANGE:	NA	NA	NA
BENZENE:	8900	NA	2800
TOLUENE:	14000	NA	1300
ETHYL BENZENE:	2700	NA	1500
XYLENES:	12000	NA	4700



CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 3 of 3
QA/QC INFORMATION
SET: 12777

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = part per billion (ppb)
* = Gasoline Range Concentration Reported. A Non-standard Gasoline Pattern was Observed in the Chromatogram.

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Standard Reference: 10/12/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L
Standard Reference: 11/29/91

Table with 6 columns: ANALYTE, REFERENCE, SPIKE LEVEL, MS/MSD RECOVERY, RPD, CONTROL LIMIT. Rows include Oil & Grease, Diesel, Gasoline, Benzene, Toluene, Ethyl Benzene, and Total Xylene.

Richard Srna, Ph.D.
Laboratory Director

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

12777

Chain-of-Custody-Record

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

Chevron Facility Number 9-1583 OAKLAND
Facility Address 5509 MARTIN LUTHER KING JR
Consultant Project Number 020302228-061004
Consultant Name Groundwater Technology
Address 4057 PORT CHICAGO HWY CONCORD CA
Project Contact (Name) SANDRA LINDSEY 510 685-9148
(Phone) 671-2387 (Fax Number)

Chevron Contact (Name) Nancy Mukelich
(Phone) 842 9581
Laboratory Name SUPERIOR
Laboratory Release Number 496 2420
Samples Collected by (Name) GREG MASON
Collection Date 2/7-92
Signature Greg Mason

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											Remarks			
								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)							
Travel Blank		1		G		HCl	Yes	X														
RBMW-5		1						X														
MW-5		3						X														
RBMW-6		1						X														
MW-6		3						X														
RBMW-4		1						X														
MW-4		3						X														
RBMW-2		1						X														
MW-2		3						X														
RBMW-1		1						X														
MW-1		3						X														
RBMW-3		1						X														
MW-3		3						X														

Please Initial: FM
 Samples Stored in ice /
 Appropriate containers /
 Samples preserved /
 VOA's without hoodspace /
 Comments: _____

Relinquished By (Signature) <u>Greg Mason</u>	Organization <u>GT1</u>	Date/Time <u>2/7</u>	Received By (Signature) <u>FM</u>	Organization <u>GT1</u>	Date/Time <u>2-5-92 14:45</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	

COC-3.DWG/03.91/HCH