

ALCO
HAZMAT

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Chevron

November 30, 1993

Chevron U.S.A. Products Company

2410 Camino Ramon
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

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

Marketing Department
Phone 510 842 9500

**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 October 15, 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, total petroleum hydrocarbons as diesel, and BTEX. Benzene was detected in monitor wells MW-1, MW-2, and MW-6 at concentrations of 0.8, 0.6, and 11 ppb, respectively. Depth to ground water was measured at 9.4 feet to 12.0 feet below grade and the direction of flow is to the west-southwest.

not GW DTW data!

The 3/4 inch diameter wells at this site continue to provide reliable and repeatable ground water analytical data. The ground water elevation measured in monitor wells MW-3 and MW-4 differed by 0.33 feet this quarter. As these two wells are located adjacent to each other, the difference in ground water elevation is unexpected. Several factors including a heterogeneous soil matrix may be responsible for the discrepancy. We will continue to evaluate all gathered data to confirm the reliability of the 3/4" diameter wells.

As we discussed on September 30, 1993, it appears that hydrocarbon concentrations in off-site monitor well MW-6 have consistently been higher than concentrations observed in any of the on-site wells. Following the next quarterly monitoring and sampling event, Chevron will further investigate possible methods for determining if hydrocarbons observed in monitor well MW-6 originated from the Chevron site.

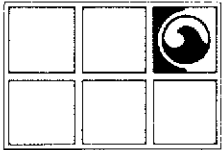
Chevron will continue to monitor and sample all wells at this site on a quarterly basis. If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area
Mr. S.A. Willer
File (9-6991 QM4)



GROUNDWATER TECHNOLOGY, INC.

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

FAX: (415) 685-9148

October 15, 1993

Project No. 020204092

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. 9-6991
2920 Castro Valley Boulevard, Castro Valley, California

Dear Mr. Miller:

Groundwater Technology, Inc. presents the attached quarterly groundwater monitoring and sampling data collected on September 28, 1993. The groundwater monitoring wells at this 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 (Figure 1) and a summary of groundwater monitoring data (Table 1) are presented in Attachments 1 and 2, respectively. After the DTW was measured, each monitoring well was purged and sampled. The groundwater samples were analyzed for benzene, toluene, ethylbenzene and xylenes; total petroleum hydrocarbons-as-gasoline; and total petroleum hydrocarbons-as-diesel. Results of the analyses are summarized in Table 1. Laboratory report and chain-of-custody document 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 contact our Concord office at (510) 671-2387.

Sincerely,
Groundwater Technology, Inc.
Written/Submitted by

Tim Watchers

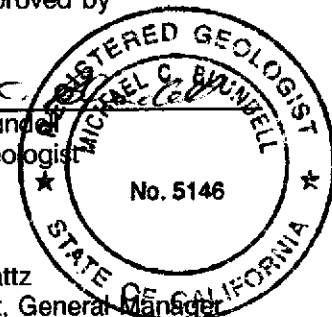
Tim Watchers
Project Geologist

PR _____

Attachment 1 Figure
Attachment 2 Table
Attachment 3 Laboratory Report

Groundwater Technology, Inc.
Reviewed/Approved by

Michael C. Blundell
Michael C. Blundell
Registered Geologist
No. 5146

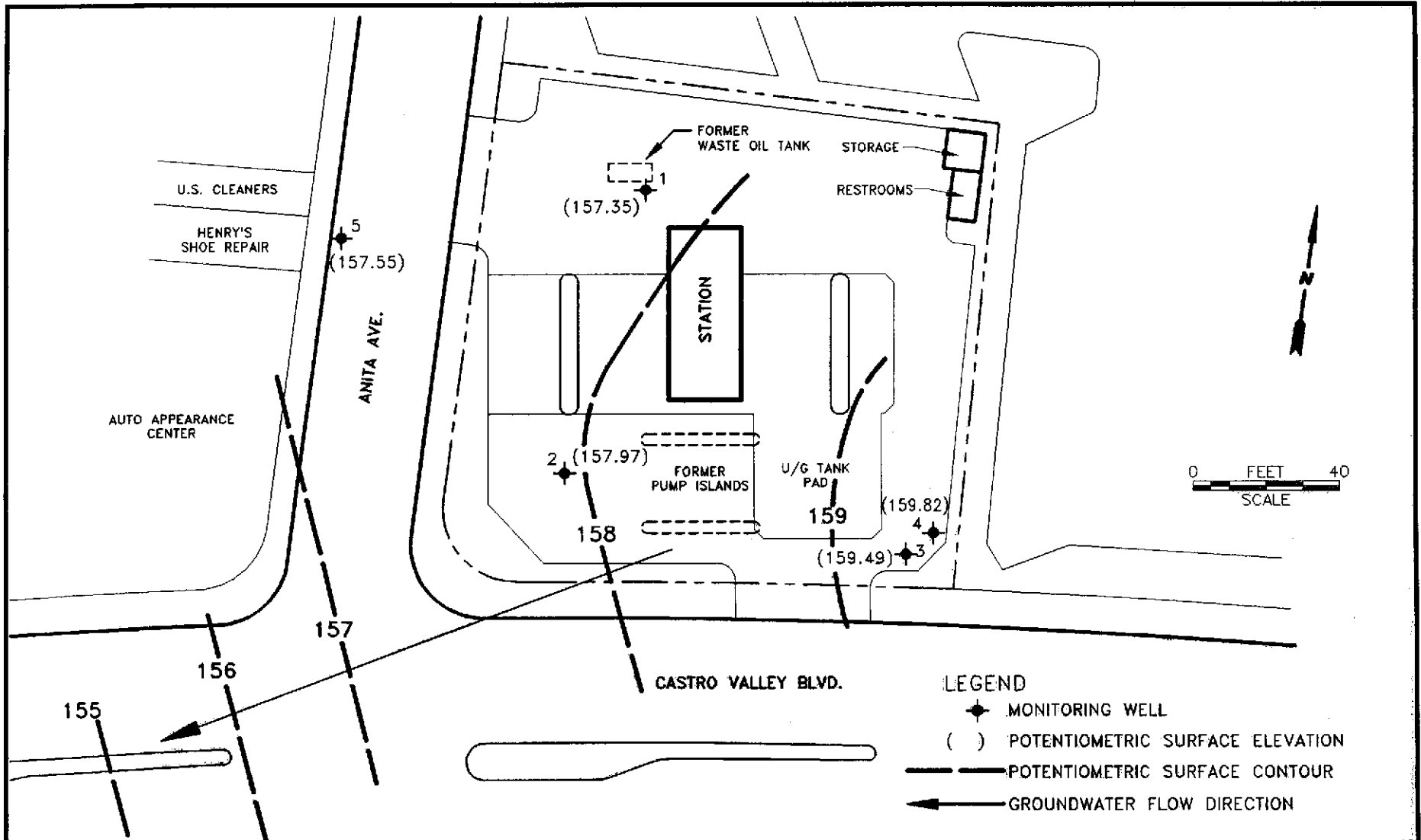


For:
Wendell W. Lattz
Vice President, General Manager
West Region

4092R023.020

ATTACHMENT 1

Figure



GROUNDWATER TECHNOLOGY		4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387		POTENTIOMETRIC SURFACE MAP (9/28/93)	
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-0515			LOCATION: 2920 CASTRO VALLEY BLVD. CASTRO VALLEY, CALIFORNIA		REV. NO.: 0
DATE: 10/12/93			PROJECT NO.: 020204116		FIGURE: 1
PM <i>[Signature]</i>	PE/RG <i>[Signature]</i>	DESIGNED TW	DETAILED ML	ACAD FILE: PSM0893/SP793	

BARBER SHOP	CHABOT MUSIC	C & M SPORTS	ABC MUSIC
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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-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-1 169.30	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
	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
	06/18/93	—	<50	<50	0.6	<0.5	<0.5	<1.5	11.01	0.00	158.29
	09/28/93	—	<50	<50	0.8	<0.5	<0.5	<1.5	11.95	0.00	157.35
MW-2 169.15	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
	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
	06/18/93	—	<50	<50	1.4	<0.5	<0.5	<1.5	11.74	0.00	157.41
	09/28/93	—	<50	<50	0.6	<0.5	<0.5	<1.5	11.18	0.00	157.97

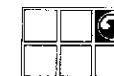
TABLE 1
HISTORICAL GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Chevron Service Station No. 9-6991
2920 Castro Valley Boulevard, Castro Valley, California

Well ID/ Elev.	Date	TOG	TPH-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-3 169.11	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
	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
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	10.89	0.00	158.22
09/28/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	9.62	0.00	159.49	
MW-4 169.18	10/27/92	---	<50	<50	<0.5	0.6	0.5	4.3	11.39	0.00	157.79
	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
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	10.68	0.00	158.50
	09/28/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	9.36	0.00	159.82
MW-5 167.41	10/27/92	---	<50	74	<0.5	<0.5	0.6	7.1	9.95	0.00	157.46
	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
	06/18/93	---	<50	<50	<0.5	<0.5	<0.5	<0.5	9.85	0.00	157.56
	09/28/93	---	<50	<50	<0.5	<0.5	<0.5	<1.5	9.86	0.00	157.55

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-D	TPH-G	Benzene	Toluene	Ethyl- benzene	Xylenes	DTW (ft)	SPT (ft)	WTE (ft)
MW-6 166.46	10/27/92	—	<50	600	22	22	24	130	12.54	0.00	153.92
	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
	06/18/93	—	51	240	37	3.4	2.9	18	11.83	0.00	154.63
	09/28/93	—	120	150	11	1.2	1.3	4.3	11.56	0.00	154.90
TRIP BLANK	10/08/91	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—
	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	—	—	—	—	—	—	—	—	—	—
	06/18/93	—	—	<50	<0.5	<0.5	<0.5	<1.5	—	—	—
09/28/93	—	—	<50	<0.5	<0.5	<0.5	<1.5	—	—	—	

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-G = Total petroleum hydrocarbons-as-gasoline
TPH-D = Total petroleum hydrocarbons-as-diesel fuel
— = Not applicable/not sampled/not measured
* = The pattern of peaks observed are not typical of diesel. Lighter than diesel.
Results in parts per billion



ATTACHMENT 3

Laboratory Report



Superior Precision Analytical, Inc.

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

Groundwater Technology Inc.
Attn: NICOLE MERCHANT

Project 020204092
Reported 10/06/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14788- 1	TB-LB	09/28/93	10/05/93	Water
14788- 2	RBMW1	09/28/93	/ /	Water
14788- 3	MW-1	09/28/93	10/04/93	Water
14788- 4	RBMW2	09/28/93	/ /	Water
14788- 5	MW2	09/28/93	10/04/93	Water
14788- 6	RBMW3	09/28/93	/ /	Water
14788- 7	MW3	09/28/93	10/02/93	Water
14788- 8	RBMW4	09/28/93	/ /	Water
14788- 9	MW4	09/28/93	10/04/93	Water
14788-10	RBMW5	09/28/93	/ /	Water

RESULTS OF ANALYSIS

Laboratory Number: 14788- 1 14788- 2 14788- 3 14788- 4 14788- 5

Gasoline:	ND<50	NA	ND<50	NA	ND<50
Benzene:	ND<0.5	NA	0.8	NA	0.6
Toluene:	ND<0.5	NA	ND<0.5	NA	ND<0.5
Ethyl Benzene:	ND<0.5	NA	ND<0.5	NA	ND<0.5
Xylenes:	ND<1.5	NA	ND<1.5	NA	ND<1.5
Diesel:	NA	NA	ND<50	NA	ND<50
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 14788- 6 14788- 7 14788- 8 14788- 9 14788-10

Gasoline:	NA	ND<50	NA	ND<50	NA
Benzene:	NA	ND<0.5	NA	ND<0.5	NA
Toluene:	NA	ND<0.5	NA	ND<0.5	NA
Ethyl Benzene:	NA	ND<0.5	NA	ND<0.5	NA
Xylenes:	NA	ND<1.5	NA	ND<1.5	NA
Diesel:	NA	ND<50	NA	ND<50	NA
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L



Superior Precision Analytical, Inc.

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

Groundwater Technology Inc.
Attn: NICOLE MERCHANT

Project 020204092
Reported 10/06/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
14788-11	MW5	09/28/93	10/02/93 Water
14788-12	RBMW6	09/28/93	/ / Water
14788-13	MW6	09/28/93	10/04/93 Water

RESULTS OF ANALYSIS

Laboratory Number: 14788-11 14788-12 14788-13

Gasoline:	ND<50	NA	150
Benzene:	ND<0.5	NA	11
Toluene:	ND<0.5	NA	1.2
Ethyl Benzene:	ND<0.5	NA	1.3
Xylenes:	ND<1.5	NA	4.3
Diesel:	ND<50	NA	120
Concentration:	ug/L	ug/L	ug/L



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

Page 3 of 3
QA/QC INFORMATION
SET: 14788

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:	77/83	8%	72-116
Benzene:	80/80	0%	71-106
Toluene:	84/84	0%	69-116
Ethyl Benzene:	94/93	1%	66-121
Xylenes:	92/90	2%	67-108
Diesel:	102/121	17%	75-125

Omyi A. Nwogu

Senior Chemist
Account Manager

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

14788

Chain-of-Custody-Record

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

Chevron Facility Number 7-6990 6991 per Nicole
Facility Address 2920 Castro Valley B. / Castro Valley
Consultant Project Number 02020 4092 & correct proj. no.
Consultant Name GTI
Address _____
Project Contact (Name) _____
(Phone) _____ (Fax Number) _____

Chevron Contact (Name) Mark Miller
(Phone) 842-8134
Laboratory Name Superior
Laboratory Release Number 483-7760
Samples Collected by (Name) STEVEN STREEM
Collection Date 9-28-93
Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed										NOTE: Do NOT BILL TB-LB SAMPLES TPH-D is not acidified Remarks				
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Greases (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Hold						
TB-LB	X1	2	W	G	NA	HCL	X	X														
RBMW1	X2	2			1400	HCL																
MW1	3	2			1400	HCL		X	X													
RBMW2	X	1			1430	HCL																
MW2	4	2			1430	HCL		X	X													4.0°C
RBMW3	6	1			1515	HCL																
MW3	7	2			1515	HCL		X	X													
RBMW4	8	1			1615	HCL																
MW4	9	2			1615	HCL		X	X													
RBMW5	10	1			1650	HCL																
MW5	11	2			1650	HCL		X	X													
RBMW6	12	1			1730	HCL																
MW6	13	2			1730	HCL		X	X													

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GTI</u>	Date/Time <u>9-28-93 1855</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>ARCO</u>	Date/Time <u>9-29-93 4:45p</u>	(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) <u>[Signature]</u>		Date/Time <u>9-30-93</u>	

10/1/93 Mr called Ms. Merchant and left message about proj. NO. and left message about proj. NO. and COC + contact