

Chevron U.S.A. Inc.

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



Marketing Department

May 15, 1992

Sh D 1940

Mr. Ravi Arulananthum Alameda County Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Re: Chevron Station # 9-5542, 7007 San Ramon Valley Blvd., Dublin, CA
Attached groundwater monitoring report

Dear Mr. Arulananthum:

Attached is a report dated March 31, 1992, which was prepared by Chevron's consultant, Sierra Environmental Services (Sierra), to describe groundwater monitoring performed on March 19, 1992, at the subject site.

The levels of dissolved hydrocarbons and the direction of hydraulic gradient were consistent with previous observations at this site.

If you have any questions or comments, I can be reached at (510) 842-8658.

Sincerely,

Clint B. Rogers

Engineer, Site Assessment and Remediation

Attachment

cc: Richard Hiett, San Francisco Bay RWQCB, Oakland, CA
Mary Diamond, See's Candy, 3423 S. La Cienega Blvd., Los Angeles, CA 90016-4401
See's Real Estate, 210 El Camino Real, S. San Francisco, CA 94080 (w/o attachment)



March 31, 1992

Clint Rogers Chevron USA P.O. Box 5004 San Ramon, CA 94583

Re:

Chevron Service Station #9-5542

7007 San Ramon Road Dublin, California SES Project #1-214-04

Dear Mr. Rogers:

This report presents the results of the quarterly ground water sampling at Chevron Service

Station #9-5542, located at 7007 San Ramon Road in Dublin, California (Figure 1, Appendix A).

Seven wells, MW-1 through MW-7, were sampled (Figure 2, Appendix A).

On March 19, 1992, SES personnel visited the site. Water level measurements were collected from all wells and all wells were checked for presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 (Appendix B) and a ground water elevation contour map is included as Figure 2 (Appendix A).

The ground water samples were collected on March 19, 1992 in accordance with SES Standard Operating Procedure - Ground Water Sampling (Appendix C). All analyses were performed by Superior Analytical Laboratory of Martinez, California. Analytic results for ground water are presented in Table 2 (Appendix B). The chain of custody document and laboratory analytic reports are included in Appendix D. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.

Sincerely.

Sierra Environmental Services

Chris J Braniel

Environmental Project Manager

Hionshell.

R. W. GREENSFELDER

Nr. 003011

Dr. Roger Greensfelder

Registered Geologist #003011

CJB/RG/ly 21404QM.MR2

Appendices

A - Figures

B - Tables

C - SES Standard Operating Procedure

D - Chain of Custody Document and Laboratory Analytic Reports

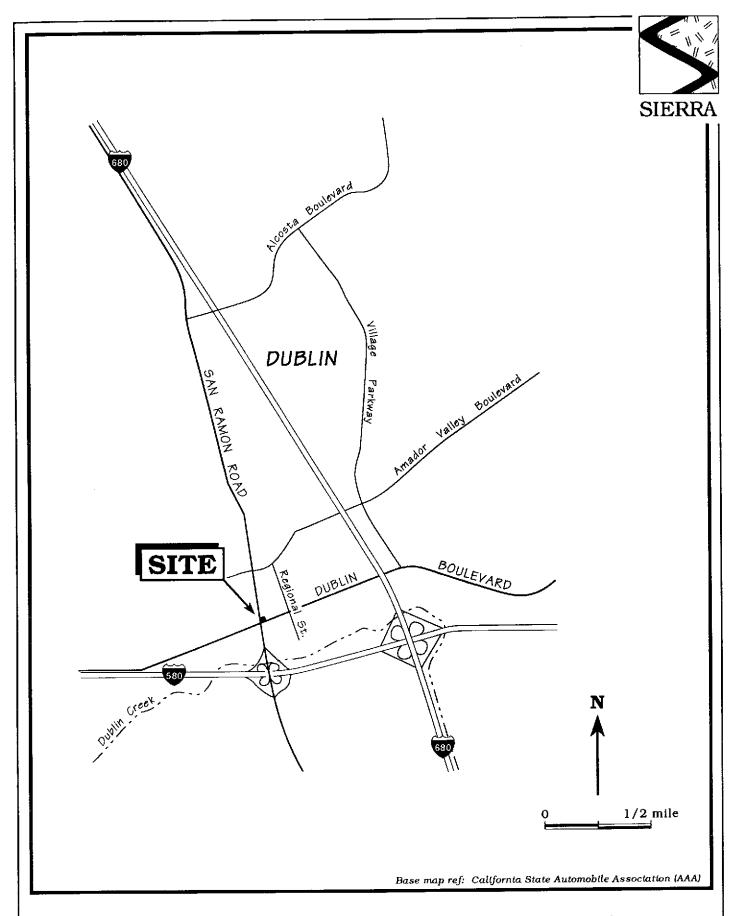


Figure 1. Site Location Map - Chevron Service Station #9-5542 - 7007 San Ramon Road, Dublin, California

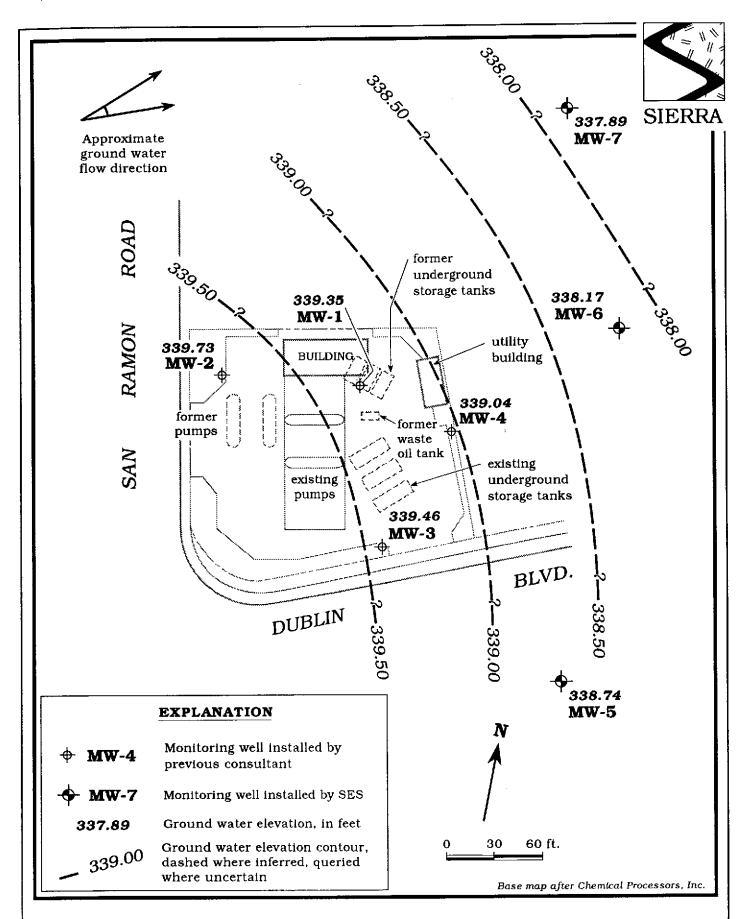


Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map - March 19, 1992 - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California

Well ID	Date Measured	D TW (ft)	TOC* (ft)	GWE (msl)	Product Thickness** (ft)	Screen Interval	Sand Pack Interval feet below grade	Bentonite/Grout Interval >
MW-I	5/31/91	25.67	363.98	338.31	0	20.0 - 35.0	19.5 - 35.5	0 - 19.5
	6/21/91	26.23		337.75	0			
	7/17/91	26.53		337.45	0			
	10/4/91	27.90		336.08	0			
	12/19/91	28.12		335.86	0			
	3/19/92	24.63		339.35	0			
MW-2	5/31/91	25.51	364,19	338.68	O	22.0 - 37.0	20.0 - 37.0	0 - 20.0
	6/21/91	26.13		338.06	O			
	7/17/91	26.46		337.73	O			
	10/4/91	27.79		336.40	0			
	12/19/91	28.06		336.13	0			
	3/19/92	24.46		339.73	0			
MW-3	5/31/91	23.20	361.92	338.72	o	20.0 - 35.0	19.0 - 35.0	0 - 19.0
	6/21/91	24.13		337.79	0			
	7/17/91	24.59		337.73	0			
	9/20/91	25.98		335.94	0			
	12/19/91	26.24		335.68	0			
	3/19/92	22.46		339.46	0			
MW-4	5/31/91	24.67	362.70	338.03	o	20.0 - 35.0	19.0 - 35.0	0 - 19.0
	6/21/91	25.31		337.39	0			
	7/17/91	25.73		336.97	0			
	10/4/91	27.08		335.62	0			
	12/19/91	27.24		335.46	0			
	3/19/92	23.66		339.04	0			



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California

Well ID	Date Measured	DTW (ft)	TOC* (ft)	GWE (msl)	Product Thickness** (ft)	Screen Interval	Sand Pack Interval -feet below grade	Bentonite/Grout Interval >
MW-5	6/21/91	23.17	359.95	336.78	0	21.0 - 36.0	19.5 - 36.0	0 - 19.5
	7/17/91	23.68		336.27	0			
	10/4/91	25.20		334.75	0			
	12/19/91	25.20		334.75	0			
	3/19/92	21.21		338.74	0			
MW-6	6/21/91	23.55	360.22	336.67	o	20.0 - 35.0	18.5 - 35.0	0 - 18.5
	7/17/91	24.00		336.22	0			
	10/4/91	25.29		334.93	0			
	12/19/91	25.34		334.88	0			
	3/19/92	22.05		338.17	0			
MW-7	6/21/91	23.45	360.63	337.18	0	20.0 - 35.0	18.5 - 35.0	0 - 18.5
	7/17/91	23.90		336.73	0			
	10/4/91	25.03		335.60	0			
	12/19/91	25.10		335.53	0			
	3/19/92	22.74		337.89	0			

EXPLANATION:

DTW = Depth to water

TOC = Top of casing elevation

GWE = Ground water elevation

msl = Measurements referenced relative to mean sea level

NOTES:

Well construction details for MW-1 through MW-4 were compiled from a draft report prepared by Chempro, undated.

- * Top of casing elevations were surveyed by Ron Miller, Professional Engineer #15816, June 26, 1991.
- ** Product thickness was measured with an MMC flexi-dip interface probe.



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California

Sample ID	Date	Analytic Method	Analytic Lab	TPPH(G) <	O&G	В	T	E ppb	X 	HVOC5	1,2-DCA	EDB	OL
													
MW-1	4/3-4/90	*	8015/602/504	46,000		8,400	7,400	860	5,600			1.04	
(D)	4/3-4/90	*	8015/602/504	43,000		8,400	7,200	840	5,200			1.1	
	5/31/91	SAL	8015/8020/8010	31,000		7,400	2,500	630	2,100	ND	2		
	5/31/91	SAL	503E		<5,000								
	9/20/91	SAL	8015/8020/8010	31,000		3,000	2,800	610	3,100	ND	0.6		
	12/19/91	SPA	8015/8020/8010	20,000		5,200	1,700	560	2,000	ND	3.3		
	3/19/92	SPA	8015/8020/8010	30,000		8,500	3,600	590	2,400	ND	2.7		
MW-2	4/3-4/90	*	8015/602/504	<50		< 0.3	<0.3	<0.3	<0.6			< 0.02	
	5/31/91	SAL	8015/8020/8010	100		3.1	4.2	0.7	2.0	ND	< 0.5		
	5/31/91	SAL	503E		<5,000								
	9/20/91	SAL	8015/8020	68		1.3	1.6	0.8	3.0				***
	12/19/91	SPA	8015/8020	<50		0.6	1.2	0.8	2.5				
	3/19/92	SPA	8015/8020	<50		2.5	2.0	1.1	2.4				
MW-3	4/3-4/90		8015/602/504	2,200		36	5	6	17			< 0.02	
	5/31/91	SAL	8015/8020/8010	2,200		130	11	31	78	ND	19		
	5/31/91	SAL	503E		<5,000								***
	9/20/91	SAL	8015/8020	2,200		190	6.0	24	32	***			
	12/19/91	SPA	8015/8020	640		73	27	17	56				
	3/19/92	SPA	8015/8020	4,500		1,000	15	91	240				
MW-4	4/3-4/90	•	8015/413.1/602/504	43,000	18,000	4,000	5,000	790	5,500			< 0.02	
	4/3-4/90	*	624**			6,000	8,200	1,500					
	5/31/91	SAL	8015/8020/8010	34,000		2,900	2,900	680	3,300	ND	< 0.5		
	5/31/91	SAL	503E		<5,000								
	9/20/91	SAL	8015/8020/8010	37,000		4,000	3,200	580	3,000	ND	9.2		
	12/19/91	SPA	8015/8020/8010	41,000		5,500	4,900	1,000	4,400	ND	17		
	3/19/92	SPA	8015/8020/8010	21,000	•••	3,800	2,900	500	3,200	ND ²	15		
MW-5	6/21/91	SAL	8015/8020	<50		<0.5	<0.5	<0.5	<0.5		<0.5		
	6/21/91	SAL	8010/LUFT	***						ND			<4,000
	9/20/91	SAL	8015/8020	170¹		0.8	0.9	< 0.5	1.5				
	12/19/91	SPA	8015/8020	<50		0.7	0.7	< 0.5	1.4			***	
	3/19/92	SPA	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

Sample ID	Date	Analytic Method	Analytic Lab	TPPH(G) <	O&G	В	T	E ppb	X	HVOCs	1,2-DCA	EDB	> OL
 MW-6	6/21/91	SAL	8015/8020	3,700		50	2.6	150	340		<0.5		
	6/21/91	SAL	8010/LUFT							ND			<4,000
	9/20/91	SAL	8015/8020	3,200		28	<0.5	140	100				
	12/19/91	SPA	8015/8020	380		2.7	4.0	15	10				
	3/19/92	SPA	8015/8020	3,400		57	4.5	330	360	***			•
MW-7	6/21/91	SAL	8015/8020	<50	***	<0.5	<0.5	<0.5	<0.5		<0.5		
	6/21/91	SAL	8010/LUFT							ND			<4,000
	9/20/91	SAL	8015/8020	69		4.4	3.3	1.2	3.9				
	12/19/91	SPA	8015/8020	<50		0.9	2.8	1.7	5.9				
	3/19/92	SPA	8015/8020	<50		1.1	0.6	0.9	2.5				
Trip Blank													
(MW-AA)	5/31/91	SAL	8015/8020	< 50		<0.5	<0.5	<0.5	<0.5				
	6/21/91	SAL	8015/8020	<50		< 0.5	<0.5	<0.5	<0.5				
	9/20/91	SAL	8015/8020	<50		<0.5	< 0.5	<0.5	<0.5				
	12/19/91	SPA	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				
	3/19/92	SPA	8015/8020	<50	•••	<0.5	<0.5	<0.5	<0.5				
Bailer Blank													•
(MW-BB)	5/31/91	SAL	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				
	6/21/91	SAL	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				
	9/20/91	SAL	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				
	12/19/91	SPA	8015/8020	<50		<0.5	<0.5	<0.5	<0.5				
	3/19/92	SPA	8015/8020	<50	•••	<0.5	<0.5	<0.5	<0.5				
DHS MCLs				NE	NE	1		680	1,750	***	0.5	0.02	NE
DHS RALs					NE		100			***			NE



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-5542, 7007 San Ramon Road, Dublin, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline O&G = Oil and Grease

B = Benzene

T = Toluenc

E = Ethylbenzene

X = Xylenes

HVOCs = Halogenated Volatile Organic Compounds

1,2-DCA = 1,2-Dichloroethane

EDB = Ethylene dibromide

OL = Organic lead

ppb = Parts per billion

ND = Not detected at detection limits of 0.5 to 1 ppb

--- = Not analyzed/not applicable

DHS = Department of Health Services

MCLs = Maximum Contaminant Levels

RALs = Recommended Action Levels

NE = Not established

D = duplicate sample

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)

602 = EPA Method 602 for BTEX

504 = EPA Method 504 for EDB

503E = Standards Methods Method 503E for O&G

8020 = EPA Method 8020 for BTEX

8010 = EPA Method 8010 for HVOCs

413.1 = EPA Method 413.1 for total O&G

624 = EPA Method 624 for BTEX and VOCs

LUFT = DHS LUFT Manual method for OL

ANALYTIC LABORATORY:

SAL = Superior Analytic Laboratory of San Francisco and Martinez, California

SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTES:

- Analytic data was compiled from a draft report prepared by Chempro, undated.
 Analytic laboratory was not shown.
- ** 624 compounds other than BTE were not reported
- *** DHS MCLs and RALs for HVOCs vary
- ¹ A non-standard gasoline pattern was observed in the chromatogram.
- Chloroform and bromodichloromethane detected at 1.3 and 0.9 ppb respectively.



APPENDIX C SIERRA ENVIRONMENTAL SERVICES STANDARD OPERATING PROCEDURES



SES STANDARD OPERATING PROCEDURE GROUND WATER SAMPLING - QUARTERLY MONITORING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured during purging. Purging is continued until these parameters have stabilized for consecutive readings.

Ground water samples are collected from the wells with steam-cleaned Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Prepreserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.



A trip blank and bailer blank accompanies each sampling set, or 5% trip blanks and 5% bailer blanks are included for sets of greater than 20 samples. The bailer blank is prepared by pouring previously boiled water into a steam-cleaned Teflon bailer prior to sampling a well. The trip and bailer blanks are analyzed for some or all of the same compounds as the ground water samples.

GWS-QMP2.SOP



APPENDIX D CHAIN OF CUSTODY DOCUMENT AND LABORATORY ANALYTIC REPORTS



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 85282

CLIENT: Sierra Environmental

CLIENT JOB NO.: 1-214-04

DATE RECEIVED: 03/20/92 DATE REPORTED: 03/27/92

Date

Date

Page 1 of 2

Lab Number Custom	er Sample Id	entificati	on	Sample		Analyzed
85282- 1 AA				03/19	/92	03/25/92
85282- 1 AA 85282- 2 BB				03/19	/92	03/25/92
85282- 3 MW-7				03/19		03/25/92
85282- 4 MW-5				03/19	-	03/25/92
85282- 5 MW-2				03/19		03/25/92
85282- 6 MW-6				03/19		03/25/92
85282- 7 MW-3				03/19		03/26/92
85282- 8 MW-1				03/19		03/26/92 03/25/92
85282- 9 MW-4				03/19	/32	03/23/32
Laboratory Number:	85282 1	85282 2	85282 3	85282 4	852 5	
ANALYTE LIST	Amounts/	Quantitati	on Limits	(ug/L)		
All Lines						
OIL AND GREASE:	NA	NA	NA	NA NA	NA	450
TPH/GASOLINE RANGE:		ND<50	ND<50	ND<50	ND.	(50
TPH/DIESEL RANGE:	NA	NA NB 10 5	NA	NA ND<0.5	2.	5
BENZENE:	ND<0.5	ND<0.5	1.1 0.6	ND(0.5	2.0	
TOLUENE:	ND<0.5 ND<0.5	ND<0.5 ND<0.5	0.9	ND<0.5	1.	
ETHYL BENZENE: XYLENES:	ND<0.5	ND<0.5	2.5	ND<0.5	2.	
			05000	05000		
Laboratory Number:	85282 6	85282 7	85282 8	85282 9		·.
ANALYTE LIST	Amounts,	'Quantitati	ion Limits	(ug/L)		
OIL AND GREASE:	NA	NA	NA	NA		
TPH/GASOLINE RANGE:		4500	30000	21000		
TPH/DIESEL RANGE:	NA	NA	NA	NA		
BENZENE:	57	1000	8500	3800		
TOLUENE:	4.5	15	3600	2900		
ETHYL BENZENE:	330	91	590	500		
XYLENES:	360	240	2400	3200		



825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2 QA/QC INFORMATION SET: 85282

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-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: 10/04/91

SW-846 Method 8020/BTXE

Minimum Quantitation Limit in Water: 0.5ug/L

Standard Reference: 10/11/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease Diesel Gasoline Benzene Toluene Ethyl Benzene	NA NA 03/03/92 02/26/92 02/26/92 02/26/92	NA NA 200 ng 200 ng 200 ng 200 ng	NA NA 97/101 105/104 101/102 101/101	NA NA 4 1 0	NA NA 70-130 70-130 70-130
Total Xylene	02/26/92	200 ng	111/112	1	70-130

Richard Srna, Ph.D.

aboratory Director

Confiled Laboratories



825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

MOCK INVOICE

Chevron USA P.O. Box 5004

San Ramon, CA 94583

Date: 03/27/92

Date Rcvd: 03/20/92 Date Rptd: 03/27/92 Our Job #: 85282

Invoice #: 85282

Sierra Environmental Job # 1-214-04

Chevron USA Release # 5464460 Facility #: 9-5542

		
QTY/MATRIX	ANALYSIS	EXT. PRICE
9 WATER 2 WATER	sample(s) for VPH-BTXE @ \$0.00 (NORMAL) sample(s) for 8010 @ \$0.00 (NORMAL)	0.00
TOTAL INVOIC	CE	0.00

Please Send Payment To: Superior Analytical Labs P.O. Box 1545 Martinez, CA 94553

TERMS: NET 30

A charge of 1.5% per month may be applied to unpaid balances

Fax copy of Lab Report and COC to Chevron Contact: ENO 85282 Chain-of-Custody-Record Chevron Contact (Name) _ ClinT Plagers Chevron Facility Number 9-5542 Foolity Address 7007 San Ramon Blod. Dublin (Phone) 942-8658 Laboratory Namo Superior Poecision Analytical Chevron U.S.A. Inc. Consultant Project Number 1-214-09 Consultant Namo SiErra Environmental Services P.O. BOX 5004 Laboratory Release Number 546 4460 Samples Collected by (Name) Toe Leizing / Chris Country San Ramon, CA 94583 Address Box 2546, Martiner CA 9455] FAX (415)842-9591 Collection Date Mar 19, 92
Signature Chartey in P Comme Project Contact (Name) Chais Bramer (Phone) 370 1280 (Fax Number) Air Charcoal Analyses To Be Performed 'urgeable Aromatics (8020) Purgeable Halocarbon (8010) Sample Number BIEX + TPH GAS (8020 + 8015) 1 11 **∢**∪ Oil and Grease (5520) u g N တပ္ဝ Remarks AΑ 1330 P/A 1401 1335 BB 40-7 1420 И 1345 NW-5 1355 146-2 Please initial: Sampled Stored in ite. 1410 MW-6 Appropriate containers 1440 Mw·3 Samples preserved 1432 Mw-1 VOA's without hoodspace 1440 MU-4 3 MW-1 1432 MW-4 1440 Turn Around Time (Circle Choice) Date/Time // 09 // 20,92 Relinquished By (Signature) Organization Date/Time Received By (Signature) Organization 24 Hre. 48 Hrs. Date/Time Relinquished By (Signature) Received By (Signature) Organization Organization 5 Days 10 Days Date/Time //:/{ Recieved For Laboratory By (Signature) Relinquished By (Signature) Organization Date/Time As Contracted 3/10/52



1555 Burke, Unit 1 • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12923-2

CLIENT: Sierra Environmental

Services

JOB NO.: 1-214-04

DATE SAMPLED: 03/19/92

DATE RECEIVED: 03/20/92

DATE ANALYZED: 03/26/92

EPA SW-846 METHOD 8010 HALOGENATED VOLATILE ORGANICS SAMPLE: MW-4

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride Bromomethane/Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride trans-1,2-Dichloroethene 1,1-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,2-Dichloroethane Trichloroethylene 1,2-Dichloropropane Bromodichloromethane Cis-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene Cis-1,2-Dichloroethene	1.0 1.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	ND ND ND ND ND ND 1.3* ND ND ND ND ND ND ND ND ND ND

MDL = Method Detection Limit ug/L = parts per billion (ppb) QA/QC Summary: Daily Standard RPD =< 15% MS/MSD average recovery = 100 % :MS/MSD RPD = 8.2 % * = not confirmed by 8240 analysis

Labotatory Director

Richard Srn

Contined Exhaustones



1555 Burke, Unit F. San Francisco, California 94124 • (415) 647-2081 / Jax [415] 821-7123

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12923-1

DATE SAMPLED: 03/19/92

CLIENT: Sierra Environmental

DATE RECEIVED: 03/20/92

Services

DATE ANALYZED: 03/26/92

JOB NO.: 1-214-04

EPA SW-846 METHOD 8010 HALOGENATED VOLATILE ORGANICS SAMPLE:MW-1

Compound	MDL (ug/L)	RESULTS (ug/L)
Chloromethane/Vinyl Chloride Bromomethane/Chloroethane Trichlorofluoromethane 1,1-Dichloroethene Methylene Chloride trans-1,2-Dichloroethene 1,1-Dichloroethane Chloroform 1,1,1-Trichloroethane Carbon tetrachloride 1,2-Dichloroethane Trichloroethylene 1,2-Dichloropropane Bromodichloromethane Cis-1,3-Dichloropropene trans-1,3-Dichloropropene trans-1,3-Dichloropropene 1,1,2-Trichloroethane Tetrachloroethene Dibromochloromethane Chlorobenzene Bromoform 1,1,2,2-Tetrachloroethane 1,3-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene Cis-1,2-Dichloroethene	1.0 1.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	ND N

MDL = Method Detection Limit

ug/L = parts per billion (ppb)

QA/QC Summary: Daily Standard RPD =< 15%

MS/MSD average recovery = 100 % :MS/MSD RPD = 8.2 %

Richard Smal

Laboratory Director