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

Marketing Department

92 MAY 11 AM 10:41

May 11, 1992

STD 436
P1

Mr. Rafat Shahid
Alameda County Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-1740
6550 Moraga Avenue, Oakland, CA 94611

Mr. Shahid :

Enclosed is the quarterly groundwater monitoring and sampling report dated April 20, 1992.

Well sample C-3 was nondetect for total purgeable petroleum hydrocarbon as gasoline (TPPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX). Sample C-1 contained 60 ppb TPPH-G, 39 ppb benzene, 4.4 ppb toluene, 3.9 ppb ethylbenzene, and 9.1 ppb xylenes, and C-2 had 100 ppb TPPH-G, 5.9 ppb benzene, 7.9 ppb toluene, 4 ppb ethylbenzene, and 14 ppb xylenes. Something that resembles free product having a thickness of 0.19 feet was present in a 2 inch well C-4. Depth to groundwater during this sampling period ranged from 3.02 feet to 17.27 feet.

The presence of what appears to be free product could be the result of surface run-off. Inspection of the wells by the consultant and territory manager revealed that the seals to the wells needed replacing which they will be replaced, and the well vaults were filled with water. Also, inventory records have been reviewed and were within acceptable range. Finally, the tanks were tested tight on October 30, 1991.

If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Kenneth Kan

Kenneth Kan
Engineer

LKAN/MacFile 9-1740R1

Enclosure

cc: Mr. Eddy So, RWQCB-S.F.Bay Region
2101 Webster Street, Suite 500, Oakland, CA 94612

Mr. Steve Willer, Chevron U.S.A., Inc.

SIERRA
Environmental Services

April 20, 1992

Kenneth Kan
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-1740
6550 Moraga Avenue
Oakland, California
SES Project #1-221-04

Dear Mr. Kan:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-1740, located at 6550 Moraga Avenue in Oakland, California (Figure 1, Appendix A). Three wells, C-1 through C-3, were sampled (Figure 2, Appendix A).

On March 24, 1992, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were present in well C-4. Water level data are shown in Table 1 (Appendix B) and a ground water elevation contour map is included as Figure 2 (Appendix A).

Ground water samples were collected on March 24, 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 USA. Please call if you have any questions.

Sincerely,
Sierra Environmental Services

Chris J. Bramer
Environmental Project Manager

REGISTERED GEOLOGIST
JOSEPH FRANKLIN
LEISING
No. 5075
STATE OF CALIFORNIA

J.F. Leising
Registered Geologist #005075

CJB/JFL/ly
22104QM.AP2

Appendices
A - Figures
B - Tables
C - SES Standard Operating Procedure
D - Chain of Custody Document and Laboratory Analytic Reports

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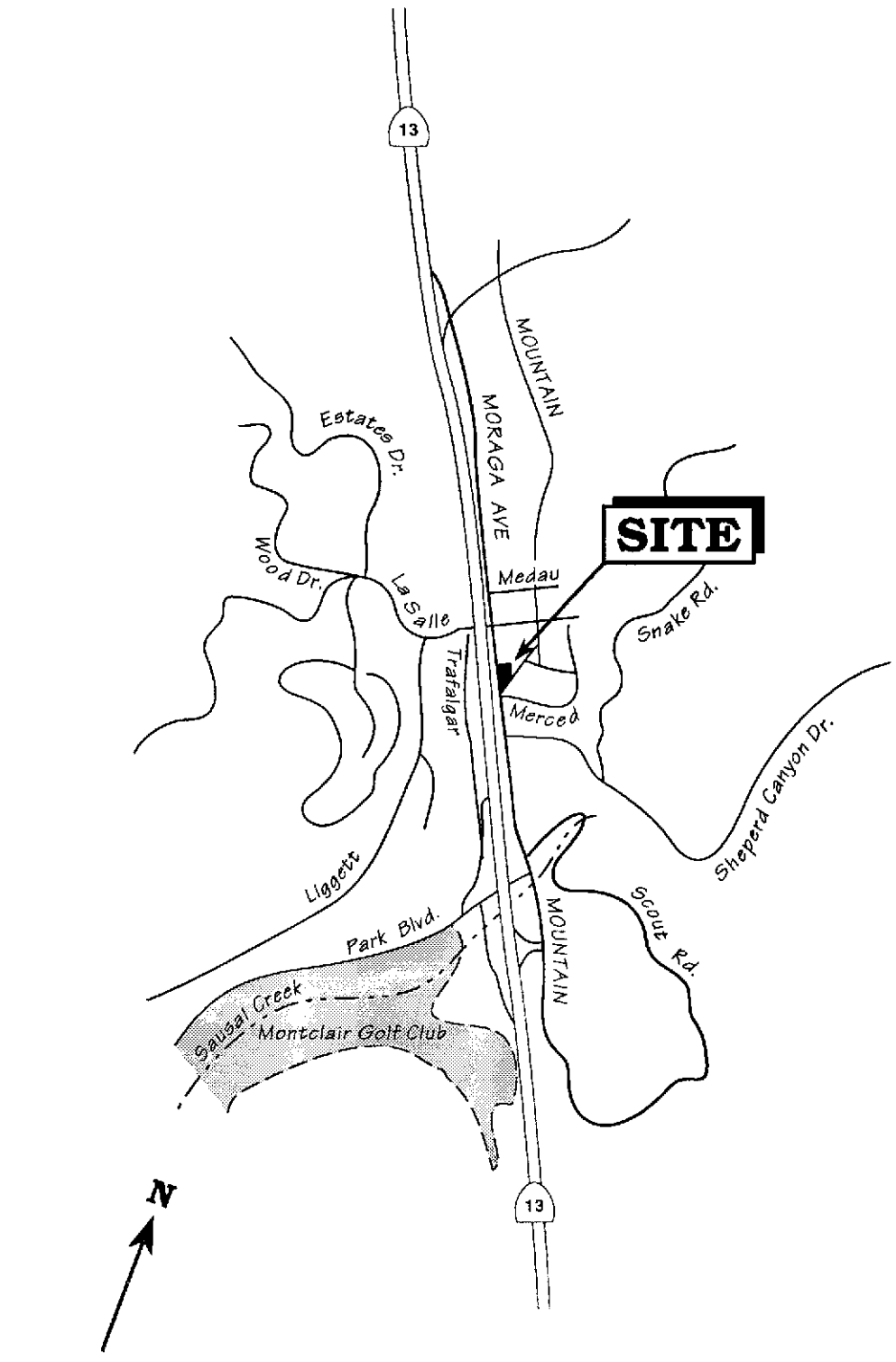

Base map ref: California Automobile Association (AAA)

Figure 1. Site Location Map – Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

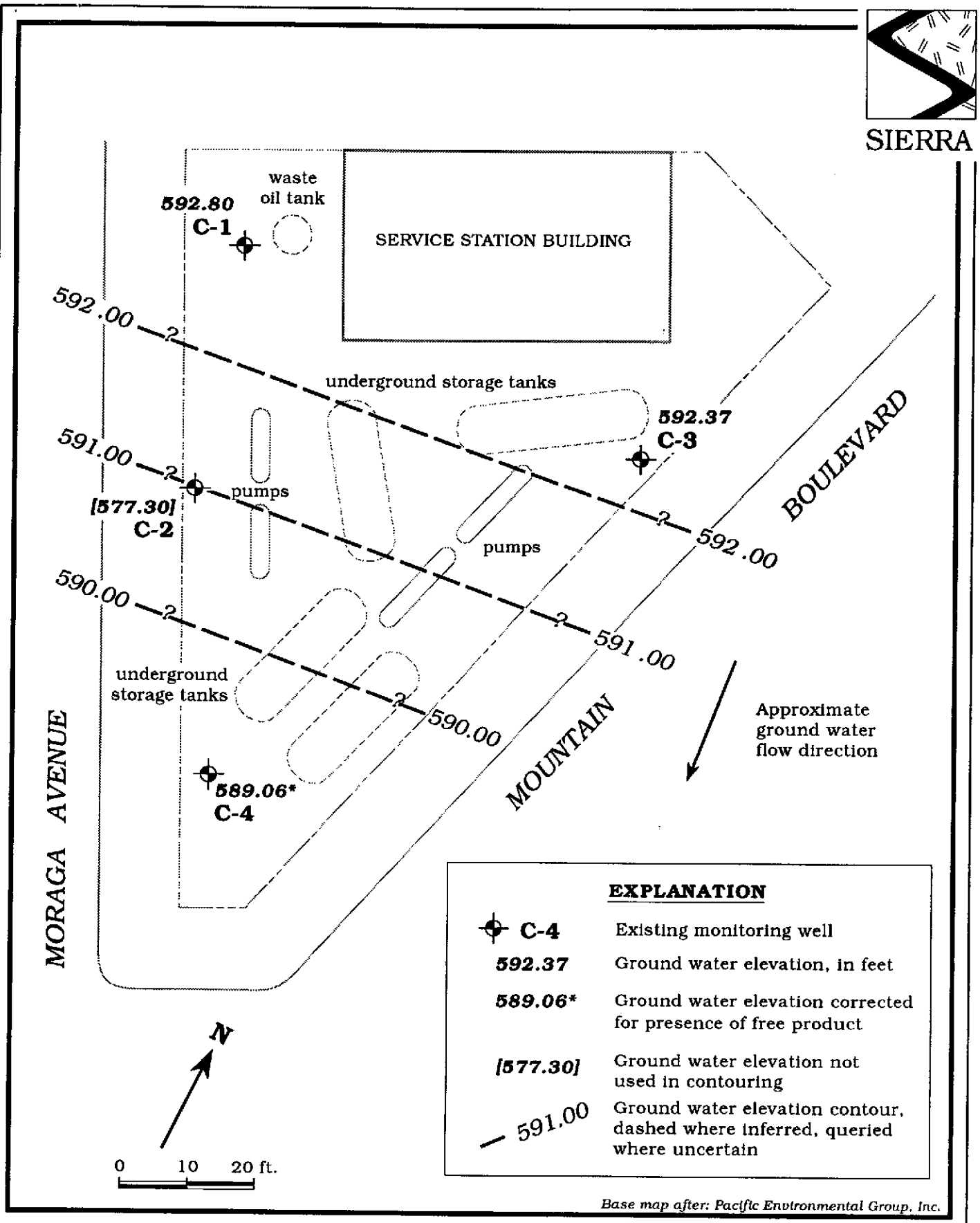

Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map – March 24, 1992 – Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------*feet below grade*---------->		
C-1	3/25/91	3.28	595.82	592.54	0	5 - 25	4 - 25	0 - 4
	7/1/91	3.43		592.39	0			
	9/25/91	4.15		591.67	0			
	12/23/91	3.71		592.11	0			
	3/24/92	**3.02**		**592.80**	**0**			
C-2	3/25/91	22.89	594.57	571.68	0	5 - 25	4 - 25	0 - 4
	7/1/91	7.37		587.20	0			
	9/25/91	6.98		587.59	0			
	12/23/91	5.01		589.56	0			
	3/24/92	**17.27**		**577.30**	**0**			
C-3	3/25/91	5.16	597.14	591.98	0	5 - 25	4 - 25	0 - 4
	7/1/91	5.84		591.30	0			
	9/25/91	5.94		591.20	0			
	12/23/91	5.94		591.20	0			
	3/24/92	**4.77**		**592.37**	**0**			
C-4	3/25/91	4.45	593.10	588.65	0	5 - 25	4 - 25	0 - 4
	7/1/91	5.33		587.77	0			
	9/25/91	5.50		587.60	0			
	12/23/91	4.92		588.18	0			
	3/24/92	**4.19**		**589.06**[1]	**.19**			

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level

NOTES:

Depth to water measurements prior to July 1, 1991, top of casing elevations, and well construction details were compiled from the Soil and Groundwater Investigation Report prepared for this service station by Pacific Environmental Group, Inc. dated June 13, 1991.

* Product thickness measurements prior to July 1, 1991 were measured with a clear teflon bailer. Measurements made since July 1, 1991 used an MMC flexi-dip interface probe.

1 GWE corrected for presence of free-phase hydrocarbons using the formula: [TOC - DTW] + product thickness x 0.80 (assumed specific gravity of free-phase hydrocarbons).

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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	TPH(D)	O&G	B	T	E	X
				<----------			*ppb*			---------->
C-1	3/25/91	SAL	8015/8020/503E	54	<50	<5,000	0.7	<0.5	<0.5	2
	7/1/91	SAL	8015/8020	730	---	---	250	3.0	16	4.8
	9/25/91	SAL	8015/8020	160	---	---	68	1.3	6.1	1.3
	12/23/91	SPA	8015/8020	170	---	---	70	1.6	3.5	2.4
	3/24/92	**SPA**	**8015/8020**	**60**	**---**	**---**	**39**	**4.4**	**3.9**	**9.1**
C-2	3/25/91	SAL	8015/8020	<50	<50	---	1	<0.5	<0.5	2
	7/1/91	SAL	8015/8020	660	---	---	190	2.5	28	22
	9/25/91	SAL	8015/8020	110	---	---	200	1.9	21	1.7
	12/23/91	SPA	8015/8020	<50	---	---	1.2	1.2	<0.5	1.8
	3/24/92	**SPA**	**8015/8020**	**100**	**---**	**---**	**5.9**	**7.9**	**4**	**14**
C-3	3/25/91	SAL	8015/8020	<50	<50	---	<0.5	<0.5	<0.5	0.5
	7/1/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	12/23/91	SPA	8015/8020	<50	---	---	1.0	<0.5	<0.5	1.5
	3/24/92	**SPA**	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
C-4	3/25/91	SAL	8015/8020	2,700	<50	---	240	16	<0.5	350
	7/1/91	SAL	8015/8020	7,900	---	---	1,500	230	340	350
	9/25/91	SAL	8015/8020	3,200	---	---	850	160	150	220
	12/23/91	SPA	8015/8020	4,100	---	---	390	52	42	340
	3/24/92*	**SPA**	**8015/8020**	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Trip Blank (AA)	3/25/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/1/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	12/23/91	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	3/24/92	**SPA**	**8015/8020**	**<50**	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank (BB)	3/25/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	7/1/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	9/25/91	SAL	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	12/23/91	SPA	8015/8020	<50	---	---	<0.5	<0.5	<0.5	<0.5
	3/24/92	**SPA**	**8015/8020**	**<50***	**---**	**---**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-1740, 6550 Moraga Avenue, Oakland, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
ppb = Parts per billion
--- = Not analyzed/Not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8015 = EPA Method 8015 for TPH(D)
8020 = EPA Method 8020 for BTEX
503E = Standard Methods Method 503E for O&G

ANALYTIC LABORATORIES:

SAL = Superior Analytic Laboratory of Martinez, California
SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTE:

Analytic data prior to July 1, 1991 were compiled from the Soil and Groundwater Investigation Report prepared for this service station by Pacific Environmental Group, Inc. dated June 13, 1991.

* Product was measured in this well, therefore it was not sampled.

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APPENDIX C
SIERRA ENVIRONMENTAL SERVICES
STANDARD OPERATING PROCEDURES

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SES STANDARD OPERATING PROCEDURE

GROUND WATER SAMPLING - QUARTERLY MONITORING

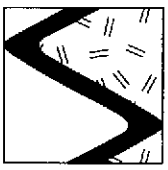
The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination 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. Pre-preserved 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.



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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.

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APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☒ No 85 505

Chain-of-Custody-Record

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

Chevron Facility Number 9-1740
Facility Address 6550 MORAGA AVE, OAKLAND
Consultant Project Number 1-221-04
Consultant Name SIERRA ENVIRONMENTAL SERVICES
Address P.O. BOX 2546, MARTINEZ, 94553
Project Contact (Name) CHRIS BRAMON
(Phone) (510) 370-1280 (Fax Number) (510) 370-7959

Chevron Contact (Name) KEN KAN
(Phone) (510) 842-8752
Laboratory Name SUPERIOR PRECISION
Laboratory Release Number 4600980
Samples Collected by (Name) ARGY MENA
Collection Date 24 MARCH '92
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)	Analyses To Be Performed: 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
MW-AA	1	3	W	G	1445	HCL	Y	✓												ANALYZE
MW-BB	2				1630															IN ORDER
C-3	3				1642															
C-2	4				1634															
C-1	5				1650															

Please Initial: PT
Samples Stored in ice. ✓
Appropriate containers ✓
Samples preserved ✓
VOA's without headspace
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	SES	25 MAR '92 0015			
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
			Brenda Lee	Superior	3/25/92 1005

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

COC-3.DWG/03 91/HCH

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

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 85305
CLIENT: Sierra Environmental
CLIENT JOB NO.: 1-221-04

DATE RECEIVED: 03/25/92
DATE REPORTED: 04/01/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
85305- 1	MW-AA	03/24/92	03/26/92
85305- 2	MW-BB	03/24/92	03/26/92
85305- 3	C-3	03/24/92	03/27/92
85305- 4	C-2	03/24/92	03/26/92
85305- 5	C-1	03/24/92	03/26/92

Laboratory Number:	85305 1	85305 2	85305 3	85305 4	85305 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	100	60
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	5.9	39
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	7.9	4.4
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	4.0	3.9
XYLENES:	ND<0.5	ND<0.5	ND<0.5	14	9.1

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: 85305

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = part 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	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	03/03/92	200 ng	100/95	5	70-130
Benzene	02/26/92	200 ng	104/104	0	70-130
Toluene	02/26/92	200 ng	98/98	0	70-130
Ethyl Benzene	02/26/92	200 ng	98/99	1	70-130
Total Xylene	02/26/92	200 ng	93/93	0	70-130

Richard Srna, Ph.D.
Laboratory Director