ALCO
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Chevron

Chevron

February 18, 1994

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Marketing Department
Phone 510 842 9500

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-2506
2630 Broadway, Oakland, CA

Dear Ms. Eberle:

Enclosed is the quarterly Ground Water Sampling report dated January 10, 1994, prepared by our consultant Sierra Environmental Services for the above referenced site. Ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Concentrations of these constituents are consistent with results from the previous quarter. Depth to ground water was measured at approximately 5 to 9 feet below grade and the direction of flow is to the north-northeast.

Our consultant, RESNA Industries, is currently obtaining permits for the proposed wells outlined in our work plan of November 18, 1993. Once the permits are obtained, field activities will begin.

Chevron will continue to monitor and sample all wells at 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) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB - Bay Area
Mr. S.A. Willer

File: 9-2506 QM2

JAN 18 '94 J.M.M.

SIERRA
Environmental Services

January 10, 1994

Mark Miller
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, California
SES Project #1-364-04

Dear Mr. Miller:

This report presents the results of the quarterly ground water sampling at Chevron Service Station #9-2506, located at 2630 Broadway in Oakland, California. Eight wells, B-1 through B-8, were sampled (Figure 1).

On December 2, 1993, 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 not present in any of the site wells checked. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on December 2, 1993 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Table 2. The chain of custody document and laboratory analytic reports are attached. 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.

REGISTERED PROFESSIONAL ENGINEER
CHRIS J. BRAMER
C 048846
CIVIL
STATE OF CALIFORNIA

Sincerely,
Sierra Environmental Services

Argy Mena
Staff Geologist

Chris J. Bramer
Professional Engineer #C48846

AJM/CJB/cb
36404QM.JA4

Attachments
Figure
Tables
SES Standard Operating Procedure
Chain of Custody Document and Laboratory Analytic Reports

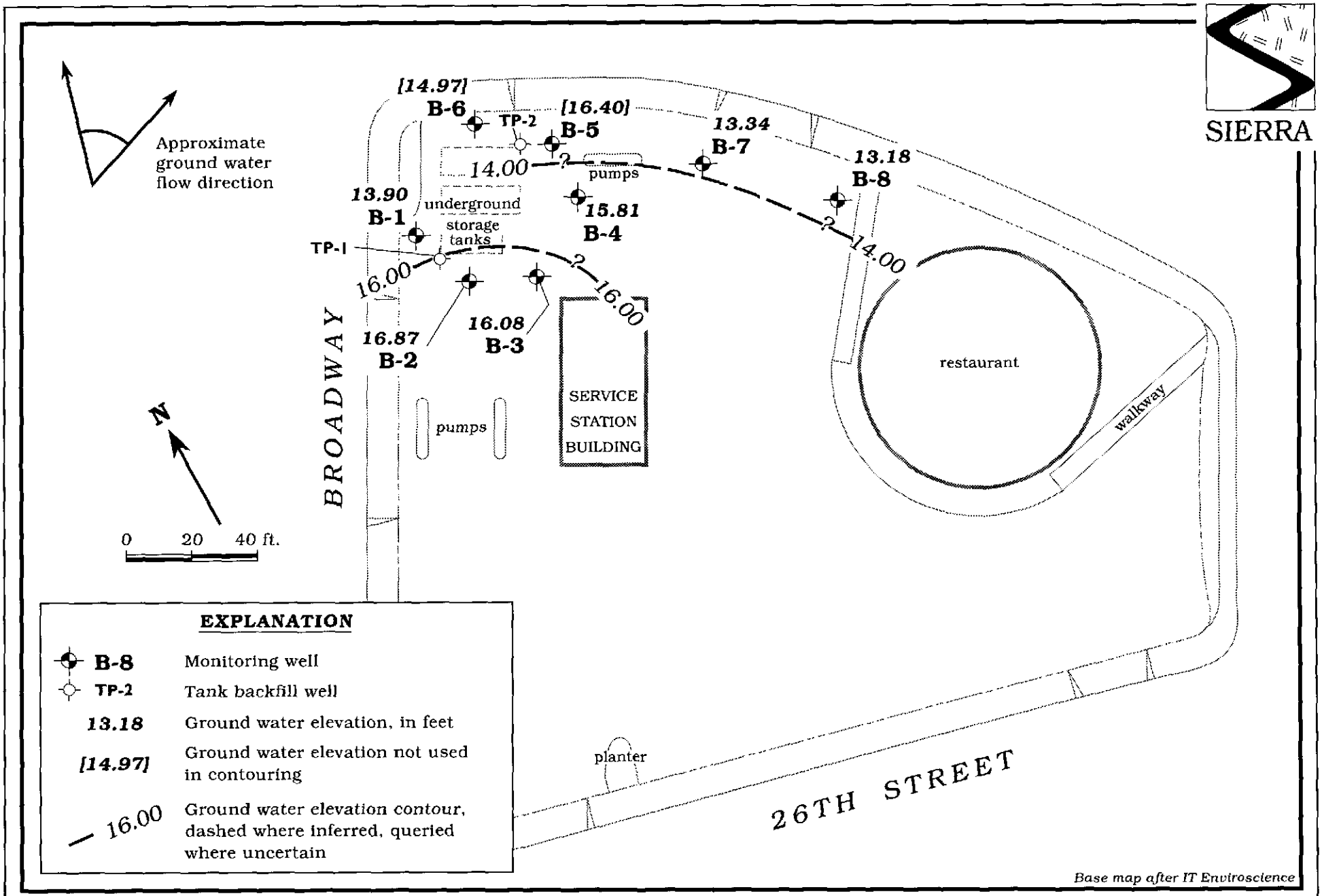

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - December 2, 1993 - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, 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---------->		
B-1	3/18/82	7.81	23.00[1]	15.19	0	5 - 20	4 - 20	0 - 4
	3/25/82	8.67		14.33	0			
	5/21/82	9.30		13.70	0			
	5/26/82	10.18		12.82	0			
	6/24/82	9.92		13.08	0			
	9/9/93	9.90		13.10	0			
	12/2/93	**9.10**		**13.90**	**0**			
B-2	3/18/82	3.83	22.28[1]	18.45	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.79		16.49	0			
	5/21/82	4.85		17.43	0			
	5/26/82	8.53		13.75	0			
	6/24/82	8.40		13.88	0			
	9/9/93	6.46		15.82	0			
	12/2/93	**5.41**		**16.87**	**0**			
B-3	3/18/82	5.65	21.78[1]	16.13	0			
	3/25/82	5.75		16.03	0			
	5/21/82	5.58		16.20	0			
	5/26/82	7.99		13.79	0			
	6/24/82	7.68		14.10	0			
	9/9/93	5.99		15.79	0			
	12/2/93	**5.70**		**16.08**	**0**			
B-4	3/18/82	4.65	21.35[1]	16.70	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.08		16.27	0			
	5/21/82	---		---	2.5			
	5/26/82	9.21		12.14	---			
	6/24/82	8.22		13.13	0.5			
	9/9/93	6.09		15.26	0			
	12/2/93	**5.54**		**15.81**	**0**			

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID	Date Measured	DTW (ft)	TOC (ft)	GWE (msl)	Product Thickness* (ft)	Screen Interval	Sand Pack Interval	Bentonite/Grout Interval
						<----------*feet below grade*---------->		
B-5	3/18/82	5.13	21.53[1]	16.40	0	5 - 20	4 - 20	0 - 4
	3/25/82	5.27		16.26	0			
	5/21/82	4.40		17.13	0			
	5/26/82	7.55		13.98	0			
	6/24/82	7.27		14.26	0			
	9/9/93	6.45		15.08	0			
	12/2/93	**5.13**		**16.40**	**0**			
B-6	3/18/82	7.56	22.03[1]	14.47	0	5 - 20	4 - 20	0 - 4
	3/25/82	6.08		15.95	0			
	5/21/82	4.85		17.18	0			
	5/26/82	8.31		13.72	0			
	6/24/82	8.03		14.00	0			
	9/9/93	8.12		13.91	0			
	12/2/93	**7.06**		**14.97**	**0**			
B-7	3/18/82	4.08	19.54[1]	15.46	0	5 - 20	4 - 20	0 - 4
	3/25/82	4.00		15.54	0			
	5/21/82	3.00		16.54	0			
	5/26/82	4.96		14.58	0			
	6/24/82	4.90		14.64	0			
	9/9/93	6.54		13.00	0			
	12/2/93	**6.20**		**13.34**	**0**			
B-8	3/18/82	4.27	18.49[1]	14.22	0	5 - 20	4 - 20	0 - 4
	3/25/82	4.06		14.43	0			
	5/21/82	4.86		13.63	0			
	5/26/82	4.96		13.53	0			
	6/24/82	4.87		13.62	0			
	9/9/93	5.20		13.29	0			
	12/2/93	**5.31**		**13.18**	**0**			
TP-1	9/9/93	7.33	---	---	0	---	---	---
TP-2	9/9/93	6.18	---	---	0	---	---	---

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Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-2506, 2630 Broadway, 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
--- = Not available/not applicable

NOTES:

Water level data prior to September 9, 1993, compiled from IT Enviroscience Progress Report, prepared for Chevron, August 2, 1982.

Well construction details for wells B-1 through B-8 were compiled from the Well Installation Report prepared by Kleinfelder, March 26, 1982.

Well construction details for TP-1 and TP-2 not available for inclusion in this report.

* Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.

[1] Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.

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Table 2. Analytic Results for Ground Water - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X
				<----------ppb----------				
B-1	9/9/93	SPA	8015/8020	8,800[1]	240	280	<2.5	<7.5
	12/2/93	**SPA**	**8015/8020**	**1,100** ↓	**100** ↓	**7.9**	**3.4**	**3.9**
B-2	9/9/93	SPA	8015/8020	4,700	470	630	180	590
	12/2/93	**SPA**	**8015/8020**	**2,200** ↓	**59** ↓	**27**	**110**	**350**
B-3	9/9/93	SPA	8015/8020	7,800	500	760	180	720
	12/2/93	**SPA**	**8015/8020**	**9,800** ↑	**790** ↑	**870**	**380**	**1,500**
B-4	9/9/93	SPA	8015/8020	88,000	3,200	16,000	2,000	9,500
	12/2/93	**SPA**	**8015/8020**	**110,000** ↑	**3,600** ↑	**25,000**	**2,800**	**15,000**
B-5	9/9/93	SPA	8015/8020	110,000	1,800	1,800	6,300	25,000
	12/2/93	**SPA**	**8015/8020**	**81,000** ↓	**4,400** ↑	**3,800**	**6,700**	**28,000**
B-6	9/9/93	SPA	8015/8020	6,800[1]	<0.5	<0.5	<0.5	<1.5
	12/2/93	**SPA**	**8015/8020**	**320** ↓	**29** ↑	**<0.5**	**<0.5**	**<0.5**
B-7	9/9/93	SPA	8015/8020	230	1.3	2.3	0.6	2.1
	12/2/93	**SPA**	**8015/8020**	**190** ↓	**4.7** ↑	**<0.5**	**1.1**	**1.9**
B-8	9/9/93	SPA	8015/8020	<50	3.4	<0.5	<0.5	<1.5
	12/2/93	**SPA**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
TP-1	9/9/93	SPA	8015/8020	8,500	770	890	120	590
TP-2	9/9/93	SPA	8015/8020	13,000	2,400	3,200	380	1,900
Trip-Lab Blank								
TB-LB	9/9/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	**SPA**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank								
BB	9/9/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	**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 #9-2506, 2630 Broadway, Oakland, California (continued)

EXPLANATION:

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
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)
8020 = EPA Method 8020 for BTEX

ANALYTIC LABORATORIES:

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

NOTES:

[1] Laboratory indicates a non-typical gasoline pattern.

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SES STANDARD OPERATING PROCEDURE
GROUND WATER SAMPLING

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 at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

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) 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.

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 3010 [illegible]

Chain-of-Custody-Record

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

Chevron Facility Number: 9-2506
Facility Address: 2630 Broadway Oakland
Consultant Project Number: 1-364-04
Consultant Name: ~~Superior Precisio~~ Sierra Environmental Services
Address: PO Box 2546 MTZ, CA 94553
Project Contact (Name): Ed Morales
(Phone): 370-1280 (Fax Number): 370-7959

Chevron Contact (Name): Marc Miller
(Phone): 842-8134
Laboratory Name: Superior Precision Analytical
Laboratory Release Number: 8842480
Samples Collected by (Name): Jim Green
Collection Date: 12-2-93
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
TB-LB	1	3	W	G	12:00	HCL	Y	✓													analyze in order
BB	2	↓	↓	↓	12:05	↓	↓	✓													↓
B-8	3				2:30			✓													
B-7	4				2:45			✓													
B-1	5				2:53			✓													
B-2	6				3:02			✓													
B-3	7				3:09			✓													
B-6	8				3:15			✓													
B-4	9				3:22			✓													
B-5	10				3:32			✓													
TP-1	11				2:00			✓													HOLD
TP-2	12	↓	↓	↓	2:17	↓	↓	✓													HOLD

Note: Do Not Bill TB-LB Samples

Please Initial: [initials]
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
[signature]	SES	12-2-93			
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
			[signature]		12/2/93 5:40

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
(As Contracted) 12/2/93 [initials]

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

Sierra Environmental
Attn: ED MORALES

Project 1-364-04
Reported 12/13/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
30105- 1	TB-LB	12/02/93	12/10/93	Water
30105- 2	BB	12/02/93	12/10/93	Water
30105- 3	B-8	12/02/93	12/10/93	Water
30105- 4	B-7	12/02/93	12/10/93	Water
30105- 5	B-1	12/02/93	12/10/93	Water
30105- 6	B-2	12/02/93	12/10/93	Water
30105- 7	B-3	12/02/93	12/13/93	Water
30105- 8	B-6	12/02/93	12/10/93	Water
30105- 9	B-4	12/02/93	12/13/93	Water
30105-10	B-5	12/02/93	12/10/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	30105- 1	30105- 2	30105- 3	30105- 4	30105- 5
Gasoline:	ND<50	ND<50	ND<50	190	1100
Benzene:	ND<0.5	ND<0.5	ND<0.5	4.7	100
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	1.1	3.4
Total Xylenes:	ND<0.5	ND<0.5	ND<0.5	1.9	3.9
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	30105- 6	30105- 7	30105- 8	30105- 9	30105-10
Gasoline:	2200	9800	320	110000	81000
Benzene:	59	790	29	3600	4400
Toluene:	27	870	ND<0.5	25000	3800
Ethyl Benzene:	110	380	ND<0.5	2800	6700
Total Xylenes:	350	1500	ND<0.5	15000	28000
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

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: 30105

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:	90/92	2%	70-130%
Benzene:	78/77	1%	70-130%
Toluene:	81/82	1%	70-130%
Ethyl Benzene:	88/91	3%	70-130%
Total Xylenes:	97/100	3%	70-130%

12/14/93.

Senior Chemist