



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

92 JUL -7 11 8: 26

Marketing Department

~~June 24, 1992~~

Ms. Susan Hugo
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station No. 9-3864
5101 Telegraph Avenue, Oakland, California

Dear Ms. Hugo :

Enclosed is the groundwater monitoring and sampling report dated June 17, 1992 for the above referenced site.

Wells C-1 thru C-4 contained detectable levels of dissolved hydrocarbons ranging from 70 to 6700 ppb total purgeable petroleum hydrocarbons as gasoline (TPPHG), 3 to 170 ppb benzene, 4.4 to 170 ppb toluene, 1.8 to 17 ppb ethylbenzene, and 9.0 to 83 ppb xylenes. During this sampling period, depth to water ranged from 14.42 feet to 16.92 feet.

The sampling and monitoring frequency for this site will be upgraded from semi-annual to quarterly.

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

Sincerely,

Chevron U.S.A. Products Co.

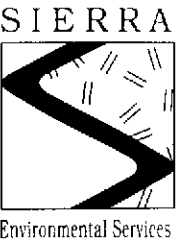
Kenneth Kan
Engineer

LKAN/MacFile 9-3864R2

Enclosure

cc: Mr. Eddie So, RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500, Oakland, CA 94612

Ms. Bette Owen, Chevron U.S.A. Products Co.



June 17, 1992

Nancy Vukelich
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Re: Former Chevron Service Station #9-3864
5101 Telegraph Avenue
Oakland, California
SES Project #1-203-04

Dear Ms. Vukelich:

This report presents the results of the semi-annual water sampling at Former Chevron Service Station #9-3864, located at 5101 Telegraph Avenue in Oakland, California (Figure 1, Appendix A). Ground water samples from four wells, C-1 through C-4, were collected (Figure 2, Appendix A).

On June 2, 1992, SES personnel visited the site. Free phase hydrocarbons were not present in any of the site wells. Water level data is shown in Table 1 (Appendix B) and a ground water elevation contour map is included as Figure 2 (Appendix A).

The water samples were collected on June 2, 1992 in accordance with SES Standard Operating Procedure - Ground Water Sampling (Appendix C). All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Table 2 (Appendix B). The chain of custody document and 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.

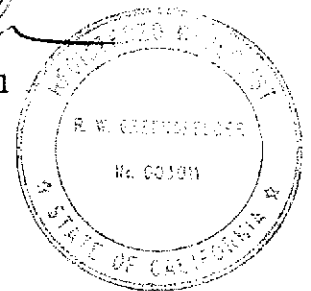
Sincerely,
Sierra Environmental Services

A handwritten signature in black ink, appearing to read "Chris J. Bramer".

Chris J. Bramer
Environmental Project Manager

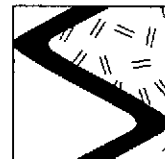
A handwritten signature in black ink, appearing to read "Roger Greensfelder".

Roger Greensfelder
Registered Geologist #003011

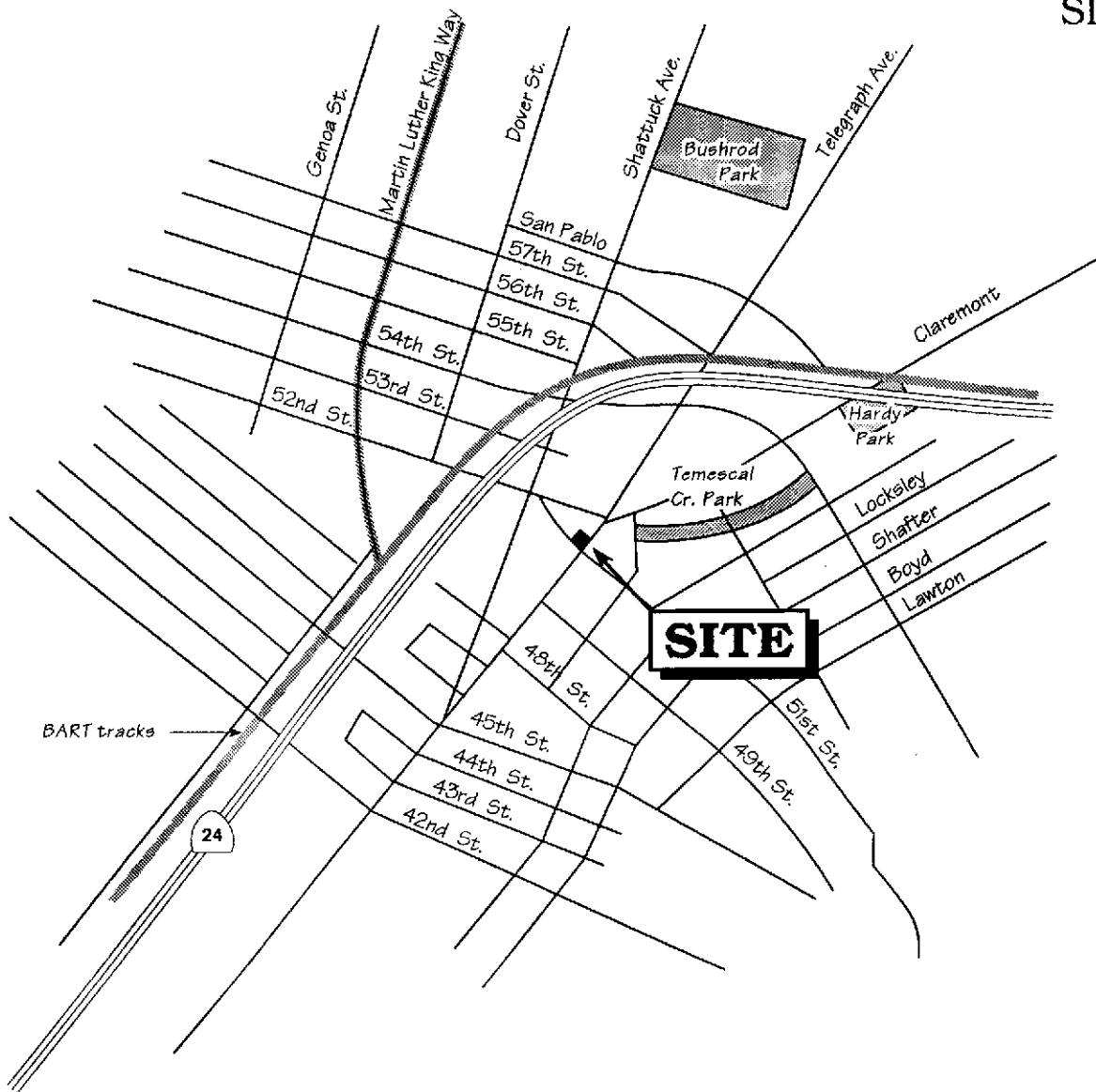


CJB/RG/ly
20304QM.JN2

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



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BART tracks

24

SITE



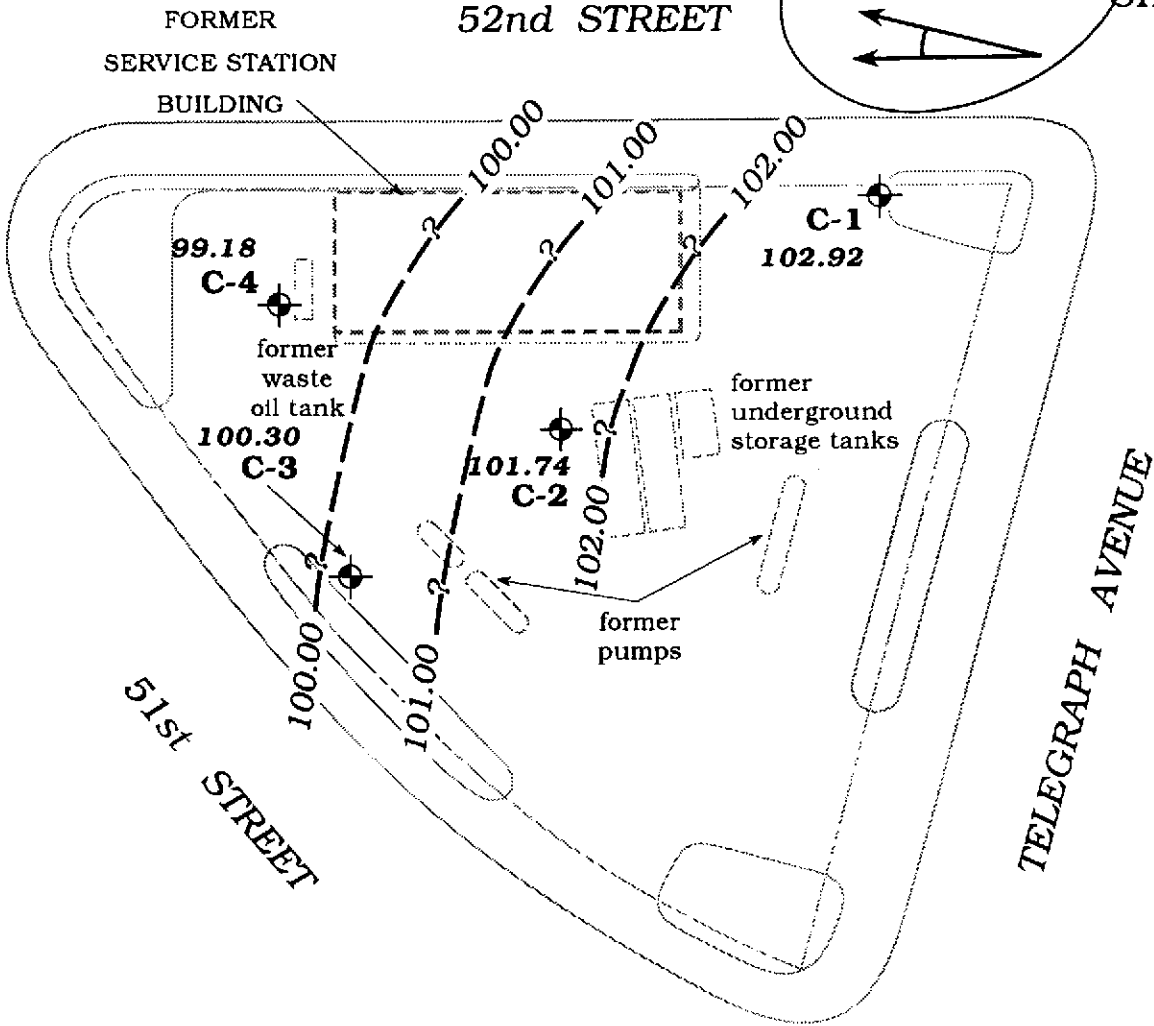
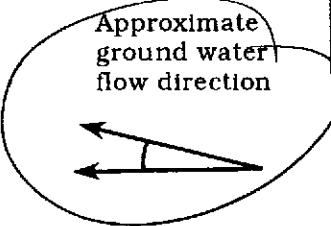
0 1/4 mile

Base map ref: California Automobile Association (AAA)

Figure 1. Site Location Map - Chevron Service Station #9-3864, 5101 Telegraph Avenue, Oakland, California

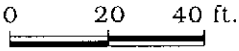


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EXPLANATION

- C-4** Monitoring well
- 100.30** Ground water elevation, in feet
- 100.00** Ground water elevation contour, dashed where inferred, queried where uncertain



Base map after: GeoStrategies Inc.

Figure 2. Monitoring Well Location and Ground Water Contour Map - June 2, 1992 - Former Chevron Service Station #9-3864, 5101 Telegraph Avenue, Oakland, California



Table 1. Water Level Data and Well Construction Details - Chevron Service Station #9-3864, 5101 Telegraph 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	12/6/90	15.34	117.45	102.11	0	10 - 29.5	8 - 30	0 - 8
	6/6/91	14.62		102.83	0			
	12/4/91	14.48		102.97	0			
	6/2/92	14.53		102.92	0			
C-2	12/6/90	15.34	116.16	100.82	0	10 - 29.5	8 - 30	0 - 8
	6/6/91	14.62		101.54	0			
	12/4/91	15.43		100.73	0			
	6/2/92	14.42		101.74	0			
C-3	12/6/90	16.86	115.70	98.84	0	10 - 29.5	8 - 30	0 - 8
	6/6/91	15.69		100.01	0			
	12/4/91	15.38		100.32	0			
	6/2/92	15.40		100.30	0			
C-4	12/6/90	17.68	116.10	98.42	0	10 - 29.5	8 - 30	0 - 8
	6/6/91	16.49		99.61	0			
	12/4/91	16.82		99.28	0			
	6/2/92	16.92		99.18	0			

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 and top of casing elevations prior to June 6, 1991 were compiled from the January 17, 1991 Site Update Report prepared for this service station by GeoStrategies, Inc. of Hayward, California.

NOTES: (continued)

Well construction details were compiled from November 14 and 15, 1990 boring logs by GeoStrategies, Inc.

- * Product thickness was measured by GeoStrategies, Inc. on December 6, 1990 with an electronic oil-water interface probe. SES product thickness measurements after 12/6/90 were made with an MMC flexi-dip interface probe.



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-3864, 5101 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G) B T E X				
				-----ppb----->				
C-1	12/6/90	SAL	8015/8020	1,900	17	11	3	21
	6/6/91	SAL	8015/8020	3,400	21	15	11	18
	12/4/91	SPA	8015/8020	2,700	22	16	13	23
	6/2/92	SPA	8015/8020	1,900	170	170	13	83
C-2	12/6/90	SAL	8015/8020	210	140	9	2	11
	6/6/91	SAL	8015/8020	4,800	340	23	19	23
	12/4/91	SPA	8015/8020	3,900	85	15	9.1	15
	6/2/92	SPA	8015/8020	3,300	76	9.2	14	15
C-3	12/6/90	SAL	8015/8020	210	2	<0.5	<0.5	1
	12/6/90 ¹	SAL	8015/8020	220	2	0.6	<0.5	2
	6/6/91	SAL	8015/8020	6,400	310	21	16	21
	12/4/91	SPA	8015/8020	5,100	120	18	17	20
	6/2/92	SPA	8015/8020	6,700	140	44	17	37
C-4	12/6/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/18/90 ²	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/6/91	SAL	8015/8020	<50	1.0	1.0	<0.5	0.7
	12/4/91	SPA	8015/8020	70	6.5	9.8	1.7	8.6
	6/2/92	SPA	8015/8020	70	3.0	4.4	1.8	9.0
Trip Blank (AA)	12/6/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/18/90 ³	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/6/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
Bailer Blank (BB)	6/6/91	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/4/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5



Table 2. Analytic Results for Ground Water - Chevron Service Station #9-3864, 5101 Telegraph Avenue, 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 for TPPH(G)
8020 = EPA Method 8020 for BTEX

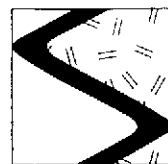
ANALYTIC LABORATORIES:

SAL = Superior Analytical Laboratory of Martinez and San Francisco,
California
SPA = Superior Precision Analytical, Inc. of Martinez, California

NOTES:

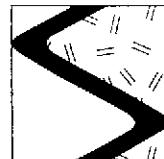
Ground water analytic data from December 6 and 18, 1990 was compiled from the January 17, 1991 Site Update Reports prepared for this service station by GeoStrategies, Inc. of Hayward, California.

- ¹ Duplicate sample.
- ² C-4 was also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8010, and metals (Cd, Cr, Pb, Ni and Zn) by EPA-approved methods. Two ppb chloroform, 0.18 ppm chromium, 0.25 ppm nickel and 0.23 ppm zinc were detected. Other HVOCs, Cd and Pb were not detected.
- ³ The trip blank was also analyzed for HVOCs. HVOCs were not detected.



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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

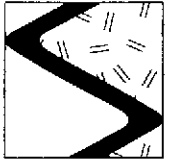
The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination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

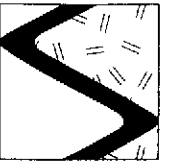
The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory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

GWS-QMP2.SOP



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APPENDIX D
CHAIN OF CUSTODY DOCUMENT AND
LABORATORY ANALYTIC REPORTS

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

85450 Chain-of-Custody-Record

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

Chevron Facility Number 9-3864
Facility Address 5101 TELEGRAPH AVE, OAKLAND
Consultant Project Number 1-203-04
Consultant Name SIERRA ENVIRONMENTAL SERVICES
Address P.O. BOX 2546 MARTINEZ 94553
Project Contact (Name) CAROL BRAMER
(Phone) (510) 370-1280 (Fax Number) 370-7959

Chevron Contact (Name) KEN KAN
(Phone) (510) 842-8752
Laboratory Name SUPERIOR PRECISION ANALYTICAL
Laboratory Release Number 4056670
Samples Collected by (Name) CAROL BRAMER
Collection Date 6/2/92
Signature Carol Bramer

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)	Analytes 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)							
TS-LB	1	40-0 3	W		10:40	Ice	Y	✓														
BB	2	↓	↓		1:40	↓	↓	↓														
C-4	3	↓	↓		1:45	↓	↓	↓														
C-1	4	↓	↓		2:00	↓	↓	↓														
C-2	5	↓	↓		2:15	↓	↓	↓														
C-3	6	↓	↓	Y	2:40	↓	↓	↓														

Note:
Do Not Bill
TB-LB Samples
Remarks

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

ANALYZE IN
ORDER
↓

Relinquished By (Signature) <u>Carol Bramer</u>	Organization <u>SES</u>	Date/Time <u>6/2/92</u>	Received By (Signature) _____	Organization _____	Date/Time _____	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
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 <u>6-2-92/0545 PM</u>	

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: Chris Bramer

Project 1-203.04
Reported 06/10/92

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
85858- 1	TB-LB	06/02/92	06/05/92 Water
85858- 2	BB	06/02/92	06/05/92 Water
85858- 3	C-4	06/02/92	06/05/92 Water
85858- 4	C-1	06/02/92	06/09/92 Water
85858- 5	C-2	06/02/92	06/05/92 Water
85858- 6	C-3	06/02/92	06/09/92 Water

RESULTS OF ANALYSIS

Laboratory Number: 85858- 1 85858- 2 85858- 3 85858- 4 85858- 5

Gasoline:	ND<50	ND<50	70	1900	3300
Benzene:	ND<0.5	ND<0.5	3.0	170	76
Toluene:	ND<0.5	ND<0.5	4.4	170	9.2
Ethyl Benzene:	ND<0.5	ND<0.5	1.8	13	14
Xylenes:	ND<0.5	ND<0.5	9.0	83	15
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 85858- 6

Gasoline:	6700
Benzene:	140
Toluene:	44
Ethyl Benzene:	17
Xylenes:	37
Concentration:	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

Page 2 of 2
QA/QC INFORMATION
SET: 85858

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	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	200 ng	96/101	6	70-130
Benzene:	200 ng	103/100	3	70-130
Toluene:	200 ng	100/98	3	70-130
Ethyl Benzene:	200 ng	107/104	3	70-130
Xylenes:	200 ng	97/93	4	70-130

Richard Srna, Ph.D.

Richard Srna
Laboratory Director