

Copy of original County file JMS 11/16/95



Chevron

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

October 22, 1993

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

**Re: Former Chevron Service Station #9-5630
997 Grant Avenue, San Lorenzo**

Dear Ms. Shin:

Enclosed we are forwarding the Quarterly Ground Water Sampling Report dated October 13, 1993, prepared by our consultant Sierra Environmental Services for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. All samples reported concentrations below the analytical detection limits. Depth to ground water was measured at approximately 8.5 to 10.7-feet below grade, and the direction of flow is to the west-northwest.

As per our conversation of October 21, 1993, we have instructed our consultant Geraghty & Miller, Inc. (GM) to prepare a formal case closure report as we feel the site meets all the criterion outlined by the RWQCB for case closure. At this time, no further work is planned. If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581. Chevron appreciates all your efforts in bringing this site to closure.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

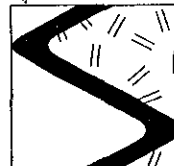

Nancy Vukelich
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB-Bay Area
Ms. B.C. Owen
File (9-5630Q9)

Mr. Lawrence E. Cogan
Ware & Freidenrich
400 Hamilton Avenue
Palo Alto, CA 94301

93 OCT 27 PM 3:26



Environmental Services

October 13, 1993

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

Re: Former Chevron Service Station #9-5630
997 Grant Avenue
San Lorenzo, California
SES Project #1-206-04

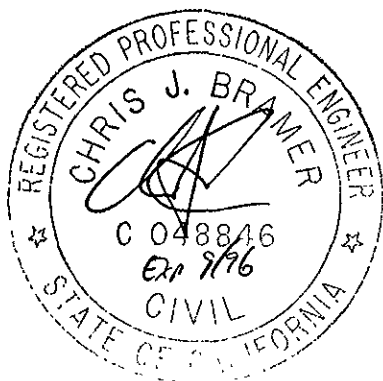
Dear Ms. Vukelich:

This report presents the results of the quarterly ground water sampling at former Chevron Service Station #9-5630, located at 997 Grant Avenue in San Lorenzo, California. Three wells, C-1, C-2, and C-5, were sampled (Figure 1). One well, C-3 was not located.

On September 7, 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. 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 September 7, 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.



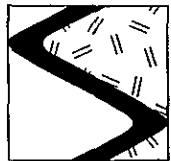
Sincerely,
Sierra Environmental Services

Argy Mena
Argy Mena
Staff Geologist

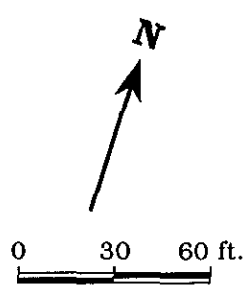
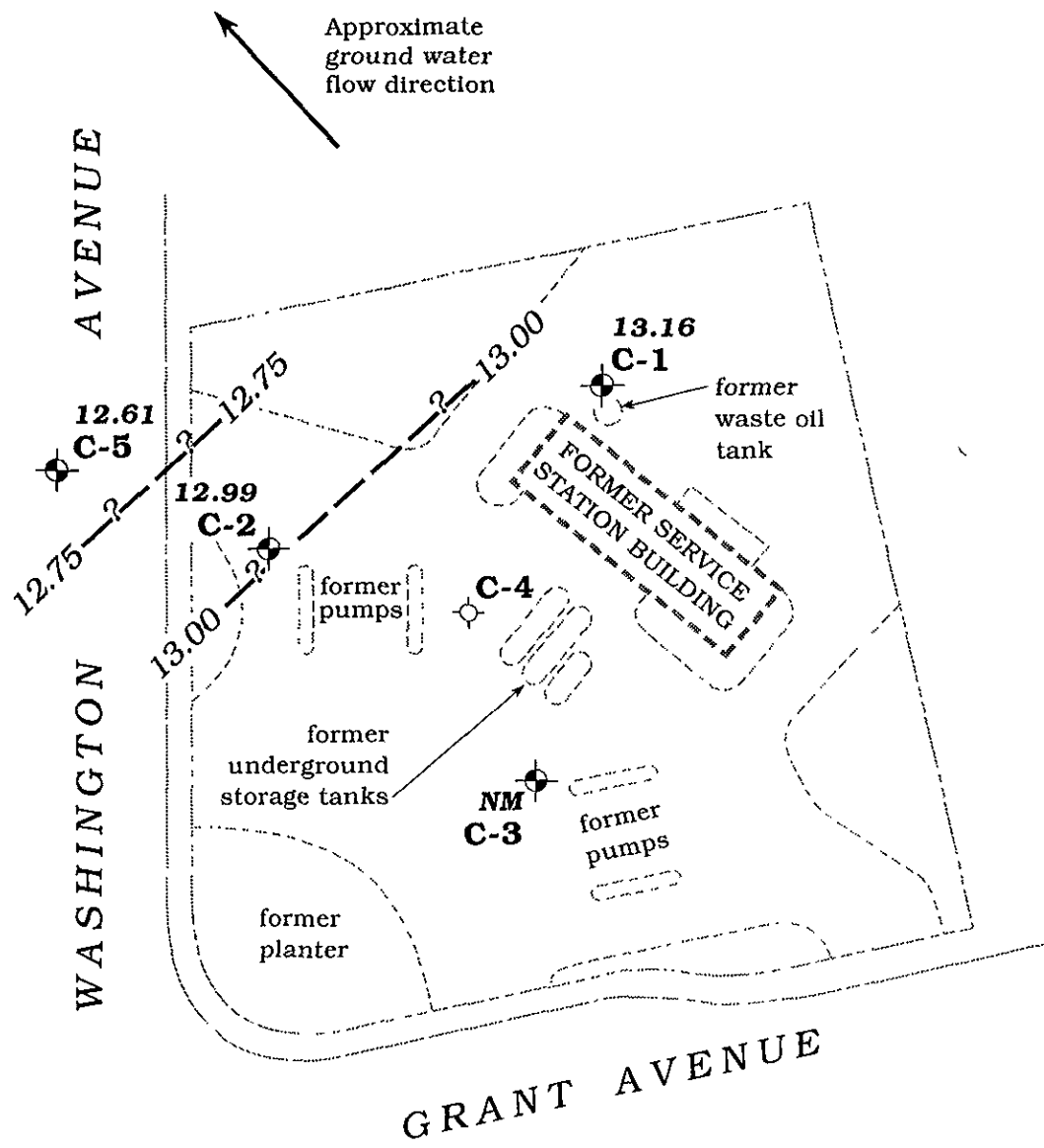
Chris J. Bramer
Chris J. Bramer
Professional Engineer #C48846

AJM/CJB/cb
20604QM.OC3

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



SIERRA



EXPLANATION	
	C-5 Monitoring well
	C-4 Destroyed well
12.61	Ground water elevation, in feet
NM	Not measured
	13.00 Ground water elevation contour, dashed where inferred, queried where uncertain

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - September 7, 1993 - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California



Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, 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	12/5/90	12.44	24.08 ¹	11.64	0	15 - 28	13 - 28	0 - 13
	9/6/91	13.20	23.88 ²	10.68	0			
	12/4/91	11.71		12.17	0			
	4/2/92	9.43		14.45	0			
	6/3/92	10.14		13.74	0			
	9/2/92	11.79		12.09	0			
	12/1/92	11.78		12.10	0			
	3/23/93	7.94		15.94	0			
	6/15/93	9.39		14.49	0			
	9/7/93	10.72		13.16	0			
C-2	12/5/90	11.30	22.69 ¹	11.39	0	15 - 28	13 - 28	0 - 13
	9/6/91	11.00	21.54 ²	10.54	0			
	12/4/91	9.38		12.16	0			
	4/2/92	7.33		14.21	0			
	6/3/92	8.99		12.55	0			
	9/2/92	9.59		11.95	0			
	12/1/92	9.58		11.96	0			
	3/23/93	6.30		15.24	0			
	6/15/93	7.27		14.27	0			
	9/7/93	8.55		12.99	0			
C-3	12/5/90	11.75	23.45 ¹	11.70	0	17 - 27	15 - 27	0 - 15
	9/6/91	11.62	22.40 ²	10.78	0			
	12/4/91	10.14		12.26	0			
	4/2/92	8.07		14.33	0			
	6/3/92	8.63		13.77	0			
	9/2/92	10.30		12.10	0			
	12/1/92	10.24		12.16	0			
	3/23/93	6.83		15.57	0			
	6/15/93	7.95		14.45	0			
	9/7/93⁵	---		---	0			
C-4	12/5/90	11.85	23.32 ¹	11.47	0	17 - 29	17 - 29	0 - 15
	9/6/91 ³	---		---	---			



Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, 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----->		
C-5	2/16/93	6.64	22.01 ⁴	15.37	0	---	---	---
	3/23/93	6.60		15.41	0			
	6/15/93	8.10		13.91	0			
	9/7/93	9.40		12.61	0			

EXPLANATION:

DTW = Depth to water
 TOC = Top of casing elevation
 GWE = Ground water elevation
 msl = Measurements referenced relative to mean sea level
 --- = Not applicable/not available

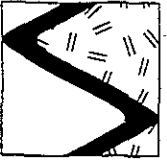
NOTE:

- * SES product thicknesses were measured with an MMC flexi-dip interface probe.
- ¹ Well head elevations taken from the Preliminary Site Assessment/Well Installation Report prepared by GeoStrategies, Inc., dated February 8, 1991.
- ² Top of Casing elevations surveyed by Ron Miller, P.E. #15816, on April 2, 1992. Ground water elevations prior to this date, corrected using this survey data.
- ³ Well was destroyed during tank removal and soil excavation operations.
- ⁴ Top of casing elevation compiled from the Groundwater Technology Inc., report prepared for Chevron. Well construction details for C-5 not available for inclusion in this report.
- ⁵ Well not located by SES personnel.



Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	O&G
				-----ppb-----					
C-1	12/5/90	SAL	8015/8020/503E	<50	<0.5	<0.5	<0.5	<0.5	<5,000
	9/6/91	SPA	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	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5,000
	6/3/92	SPA	8015/8020	<50	1.4	1.5	0.6	3.0	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/1/92	SPA	8015/8020	<50	0.6	3.5	0.7	3.4	---
	3/23/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/15/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	9/7/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
C-2	12/5/90	SAL	8015/8020	<50	0.7	<0.5	<0.5	0.5	---
	9/6/91	SPA	8015/8020	<50	1.3	0.6	0.7	1.5	---
	12/4/91 ²	---	---	---	---	---	---	---	---
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/23/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/15/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	9/7/93	SPA	8025/8020	<50	<0.5	<0.5	<0.5	<1.5	---
C-3	12/5/90	SAL	8015/8020	<50	1	0.7	<0.5	<0.5	---
	9/6/91	SPA	8015/8020	1,100	150	0.6	51	1.9	---
	12/4/91	SPA	8015/8020	89	<0.5	<0.5	0.7	0.6	---
	4/2/92	SPA	8015/8020	60	2.1	1.3	1.1	3.2	---
	6/3/92	SPA	8015/8020	180	3.0	1.4	0.6	1.5	---
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	0.9	---
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/23/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/15/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	9/7/93 ⁴	---	---	---	---	---	---	---	---
C-4	12/5/90	SAL	8015/8020	<50	4	2	0.7	3	---
	9/6/91 ¹	---	---	---	---	---	---	---	---
C-5	2/16/93 ³	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	3/23/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	6/15/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---
	9/7/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---



SIERRA

Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California (continued)

Well ID	Date Sampled	Analytic Lab	Analytic Method	TPPH(G)	B	T	E	X	O&G	
				-----ppb-----						
AA (Trip Blank)	12/5/90	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/6/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
TB-LB	12/4/91	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	6/3/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/2/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	12/1/92	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	3/23/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	6/15/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---	
	9/7/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---	
	BB (Bailer Blank)	9/6/91	SPA	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	---
4/2/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
6/3/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
9/2/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	0.4	---	
12/1/92		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
3/23/93		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
6/15/93		SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---	
9/7/93	SPA	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	---		

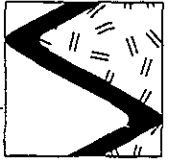


Table 2. Analytic Results for Ground Water - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California (continued)

EXPLANATION:

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

ANALYTIC METHODS:

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

ANALYTIC LABORATORY:

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

NOTE:

- ¹ Well was destroyed during tank removal and soil excavation operations.
- ² Well obstructed, therefore could not be sampled.
- ³ Analytic laboratory information for this event not available for inclusion in this report. Analytic methods used are assumed to be 8015/8020. Analytic data compiled from the Groundwater Technology Inc., report prepared for Chevron.
- ⁴ Well was not located by SES personnel.



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 $\pm 0.5^{\circ}\text{F}$, 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

Chain-of-Custody-Record

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

Chevron Facility Number: 9-5630
 Facility Address: 997 Grant Avenue, San Lorenzo
 Consultant Project Number: 1-206-04
 Consultant Name: Sierra Environmental Services
 Address: P.O. Box 2546, Martinez, CA 94553
 Project Contact (Name): Argy Mena
 (Phone) 370-1280 (Fax Number) 370-7959

Chevron Contact (Name): Nancy Vukelich
 (Phone): 842-9581
 Laboratory Name: Superior Precision Analytical
 Laboratory Release Number: 424 7210
 Samples Collected by (Name): Carol Eaton
 Collection Date: 9/7/93
 Signature: Carol Eaton

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)	Analysis To Be Performed													
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						
TB-LB		3	W	G	11:55	HCl	Y	✓													
BB		↓	↓	↓	12:55	↓	↓	✓													
C-1		↓	↓	↓	12:05	↓	↓	✓													
C-5		↓	↓	↓	12:30	↓	↓	✓													
C-2		↓	↓	↓	13:00	↓	↓	✓													

Note:
 Do Not Bill
 TB-LB Samples

Remarks

Analyze in order shown

Please Initial: AK
 Samples Stored in ice. Y
 Appropriate containers Y
 Samples preserved Y
 QA's without headspace Y
 Comments: OK

Relinquished By (Signature) <u>Carol Eaton</u>	Organization <u>SES</u>	Date/Time <u>9/7/93 4:30</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time
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>9/7/93 11:30</u>	

Turn Around Time (Circle Choice)

24 Hrs.
 48 Hrs.
 5 Days
 10 Days
 As Contracted

9/7/93



Superior Precision Analytical, Inc.

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

Sierra Environmental
Attn: ARGY MENA

Project 1-206-04
Reported 09/10/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
89892- 1	TB-LB	09/07/93	09/08/93 Water
89892- 2	BB	09/07/93	09/08/93 Water
89892- 3	C-1	09/07/93	09/08/93 Water
89892- 4	C-5	09/07/93	09/08/93 Water
89892- 5	C-2	09/07/93	09/08/93 Water

RESULTS OF ANALYSIS

Laboratory Number: 89892- 1 89892- 2 89892- 3 89892- 4

Gasoline:	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Total Xylenes:	ND<1.5	ND<1.5	ND<1.5	ND<1.5

Concentration: ug/L ug/L ug/L ug/L

Laboratory Number: 89892- 5

Gasoline:	ND<50
Benzene:	ND<0.5
Toluene:	ND<0.5
Ethyl Benzene:	ND<0.5
Total Xylenes:	ND<1.5

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

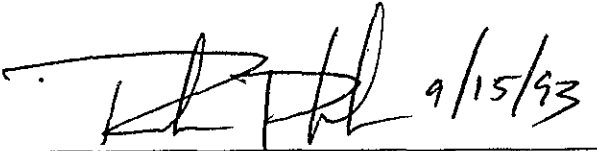
Page 2 of 2
QA/QC INFORMATION
SET: 89892

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

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:	92/92	0%	70-130
Benzene:	94/97	3%	70-130
Toluene:	101/105	4%	70-130
Ethyl Benzene:	102/106	4%	70-130
Total Xylenes:	93/97	4%	70-130

 9/15/93
Senior Chemist