

*Copy of original County file  
SMS 11/16/95*



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July 26, 1993

**Chevron U.S.A. Products Company**  
2410 Camino Ramon  
San Ramon, CA 94583

**Marketing Department**  
Phone 510 842 9500

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 July 9, 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 limit. Depth to ground water was measured at approximately 7.9 to 9.4-feet below grade, and the direction of flow is to the west-southwest.

Chevron will continue to monitor this site and report findings on a quarterly basis. At completion of one (1) additional round of monitoring, we evaluate the site for appropriate next actions with respect to closure. If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

Sincerely,  
CHEVRON U.S.A. PRODUCTS COMPANY

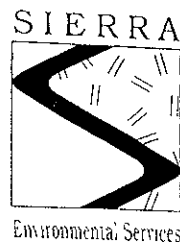
  
Nancy Vukelich  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB-Bay Area  
Ms. B.C. Owen  
File (9-5630Q8)

Ms. Beth Castleberry  
Ware & Freidenrich  
400 Hamilton Avenue  
Palo Alto, CA 94301-1825

JUL 21 '93  
JUL 22 '93 PWM  
PWM



July 9, 1993

Nancy Vukelich  
Chevron USA  
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. Four wells, C-1, C-2, C-3 and C-5, were sampled (Figure 1).

On June 15, 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 July 15, 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

A handwritten signature in black ink, appearing to read "Richard E. Hilton".

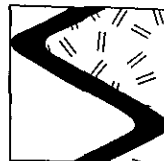
Richard E. Hilton  
Staff Environmental Scientist

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

Chris J. Bramer  
Professional Engineer #C48846

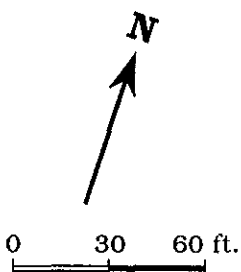
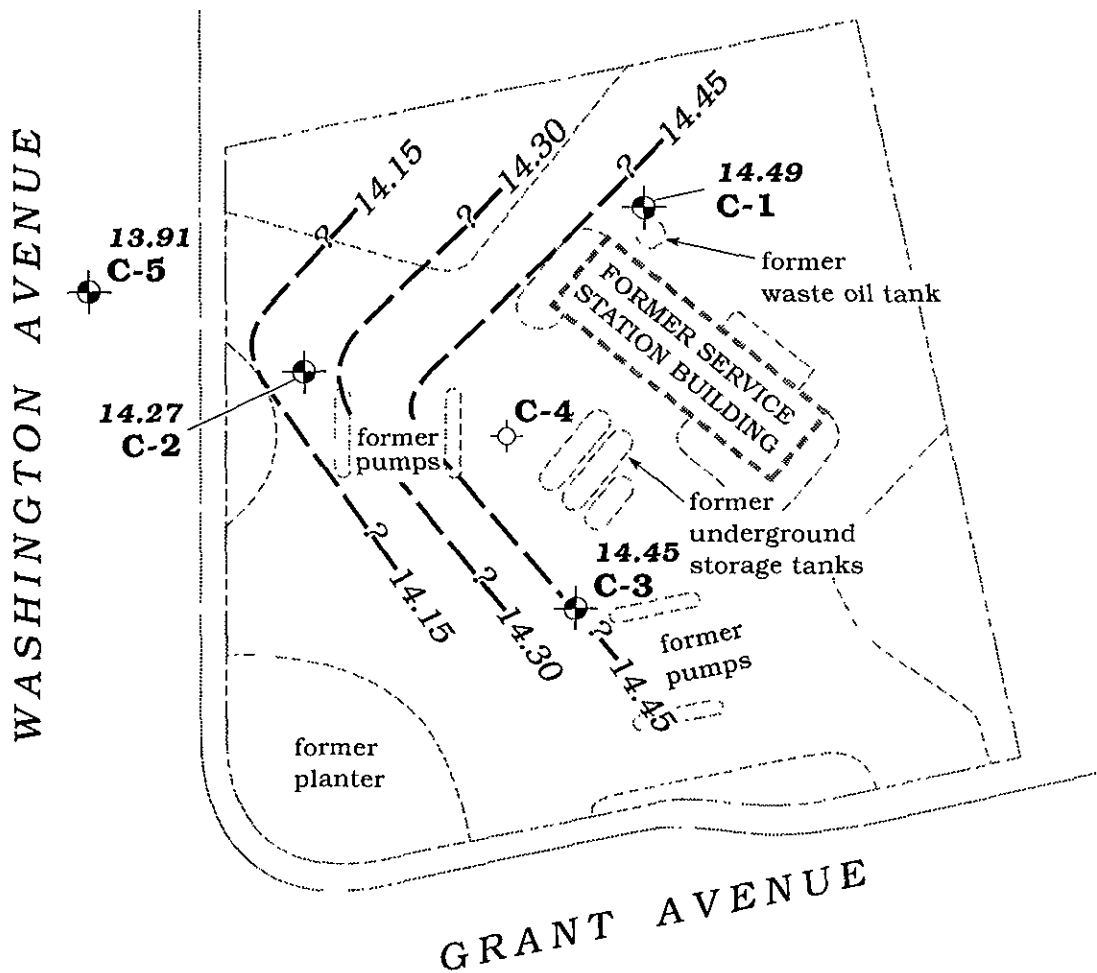
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20604QM.JL3

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



SIERRA

Approximate  
ground water  
flow direction



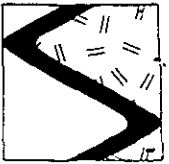
<u>EXPLANATION</u>	
	<b>C-5</b> Monitoring well
	<b>C-4</b> Destroyed well
<b>13.91</b>	Ground water elevation, in feet
	<b>14.45</b> Ground water elevation contour, dashed where inferred, queried where uncertain

Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - June 15, 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 <sup>1</sup>	11.64	0	15 - 28	13 - 28	0 - 13
	9/6/91	13.20	23.88 <sup>2</sup>	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			
<b>6/15/93</b>	<b>9.39</b>		<b>14.49</b>	<b>0</b>				
C-2	12/5/90	11.30	22.69 <sup>1</sup>	11.39	0	15 - 28	13 - 28	0 - 13
	9/6/91	11.00	21.54 <sup>2</sup>	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			
<b>6/15/93</b>	<b>7.27</b>		<b>14.27</b>	<b>0</b>				
C-3	12/5/90	11.75	23.45 <sup>1</sup>	11.70	0	17 - 27	15 - 27	0 - 15
	9/6/91	11.62	22.40 <sup>2</sup>	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			
<b>6/15/93</b>	<b>7.95</b>		<b>14.45</b>	<b>0</b>				
C-4	12/5/90	11.85	23.32 <sup>1</sup>	11.47	0	17 - 29	17 - 29	0 - 15
	9/6/91 <sup>3</sup>	---	---	---	---			
C-5	2/16/93	6.64	22.01 <sup>4</sup>	15.37	0	---	---	---
	3/23/93	6.60		15.41	0			
	<b>6/15/93</b>	<b>8.10</b>		<b>13.91</b>	<b>0</b>			



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Table 1. Water Level Data and Well Construction Details - Former Chevron Service Station #9-5630, 997 Grant Avenue, San Lorenzo, California (continued)

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EXPLANATION:

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

NOTE:

- \* SES product thicknesses were measured with an MMC flexi-dip interface probe.
- <sup>1</sup> Well head elevations taken from the Preliminary Site Assessment/Well Installation Report prepared by GeoStrategies, Inc., dated February 8, 1991.
- <sup>2</sup> 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.
- <sup>3</sup> Well was destroyed during tank removal and soil excavation operations.
- <sup>4</sup> 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.



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	---
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 <sup>2</sup>	---	---	---	---	---	---	---	---
	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	---
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	---
C-4	12/5/90	SAL	8015/8020	<50	4	2	0.7	3	---
	9/6/91 <sup>1</sup>	---	---	---	---	---	---	---	---
C-5	2/16/93 <sup>3</sup>	---	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	---
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	---
	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	---



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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-----					
TB-LB	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	---
	<b>6/15/93</b>	<b>SPA</b>	<b>8015/8020</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	---
BB (Baifer 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	---
	<b>6/15/93</b>	<b>SPA</b>	<b>8015/8020</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	---

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 = Standards Method 503E for O&G

ANALYTIC LABORATORY:

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

NOTE:

- <sup>1</sup> Well was destroyed during tank removal and soil excavation operations.
- <sup>2</sup> Well obstructed, therefore could not be sampled.
- <sup>3</sup> 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.



## **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 four 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  $4^\circ\text{C}$  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.







# Superior Precision Analytical, Inc.

PO Box 1545 • Martinez, California 94553 • (510) 229-1590 / fax (510) 229-0916

Sierra Environmental  
Attn: ARGY MENA

Project 1-206-04  
Reported 06/22/93

## TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
88961- 1	TB-LB	06/15/93	06/20/93 Water
88961- 2	BB	06/15/93	06/20/93 Water
88961- 3	C.5	06/15/93	06/20/93 Water
88961- 4	C.3	06/15/93	06/20/93 Water
88961- 5	C.2	06/15/93	06/20/93 Water
88961- 6	C.1	06/15/93	06/20/93 Water

## RESULTS OF ANALYSIS

Laboratory Number: 88961- 1 88961- 2 88961- 3 88961- 4 88961- 5

Gasoline:	ND<50	ND<50	ND<50	ND<50	ND<50
Benzene:	ND<0.5	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	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Xylenes:	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number: 88961- 6

Gasoline:	ND<50
Benzene:	ND<0.5
Toluene:	ND<0.5
Ethyl Benzene:	ND<0.5
Xylenes:	ND<1.5
Concentration:	ug/L



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: 88961

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:	87/88	1%	70-130
Benzene:	92/94	2%	70-130
Toluene:	97/98	1%	70-130
Ethyl Benzene:	100/102	2%	70-130
Xylenes:	100/102	2%	70-130

Richard Srna, Ph.D.

Laboratory Director

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

88961

Chain-of-Custody-Record

Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevron Facility Number <u>9-5630</u>	Chevron Contact (Name) <u>NANCY VUKELICH</u>
	Facility Address <u>997 COLANT AVE, SAN LORENZO</u>	(Phone) <u>842-9581</u>
	Consultant Project Number <u>1-206-04</u>	Laboratory Name <u>SUPERIOR PRECISION ANALYTICAL</u>
	Consultant Name <u>SIERRA ENVIRONMENTAL SERVICES</u>	Laboratory Release Number <u>4247210</u>
	Address <u>PO BOX 2546, MARTINEZ, CA 94553</u>	Samples Collected by (Name) <u>RICK HILTON</u>
Project Contact (Name) <u>ARGY MENA</u>	Collection Date <u>6/15/93</u>	Signature <u>[Signature]</u>
	(Phone) <u>510-370-1280 (Fax Number) 510-370-7959</u>	

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks
								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)			
TBLB		3	W	G	1237	Hcl	YES	✓										Analyze in
BB					1240			✓										ORDER LISTED
C-5					1245			✓										
C-3					1312			✓										
C-2					1332			✓										
C-1					1355			✓										

Please Initial: RP

Samples Stored in ice yes

Appropriate containers yes

Samples preserved yes

VOA's without headspace yes

Comments: OK

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SES</u>	Date/Time <u>1800 6/15/93</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days As Contracted <u>CGH</u>
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>1800 6/15/93</u>	

COC-3.DWG/03 91/HCH