Chevron

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 JUL 17 [illegible]:05

July 15, 1992

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

Re: Chevron Service Station #9-0290
1802 Webster Street, Alameda

Dear Ms. Shin:

Enclosed we are forwarding the results of the ground water monitoring and separate-phase hydrocarbon (SPH) removal report dated July 8, 1992, prepared by our consultant Pacific Environmental Group, Inc. (PEG) for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), total oil & grease (TOG) and BTEX. Benzene was detected in monitor wells B-3, B-4 and B-5 only at concentrations of 550, 2,000 and 39 ppb, respectively. TPH-D was reported in monitor wells B-3 only at a concentration of 250 ppb. However, the laboratory has indicated that the chromatograph does not match a typical diesel pattern. All monitor wells reported non-detectable concentrations of TOG. We will discontinue analyzing for TOG in subsequent events based on these results. Separate-phase hydrocarbons were observed in tank pit backfill wells A-1 and A-2 at measured thicknesses of a .40 and .02-feet, respectively. Approximately 5-gallons of SPH were recovered during this quarter. To date, approximately 1,946 gallons of separate-phase hydrocarbons have been removed since the implementation of the bailing program in September, 1991. Depth to ground water was measured at approximately 3.7 to 5.9-feet below grade, and the direction of flow is to the east.

I have received the results of the separate-phase sample submitted to Chevron's laboratory for product identification. This analysis was performed due to the discrepancy in amount of product recovered versus the amount of product that was accidentally dispensed into the well. The results reported that the sample consisted of 95.9% lube oil, 2.5% diesel fuel and 1.6% gasoline hydrocarbons. This information suggests that we have recovered the bulk of the diesel fuel that was accidentally dispensed into the tank pit well. However, it appears that we may be recovering waste oil that had been inadvertently dispensed into the tank pit well, mistaking this well for the waste oil tank fill riser. We have clearly labeled the waste oil tank riser to prevent future occurrences.

Chevron will continue to examine all monitor wells for the presence of separate-phase hydrocarbons on a monthly basis and perform quarterly chemical analysis. The frequency of the bailing events was reduced to biweekly in January, 1992, and then to monthly in February, 1992, as a result of very small volumes of separate-phase being recovered during these bailing events. Monitor wells which exhibit separate-phase hydrocarbons will be bailed during this inspection.

A work plan was submitted to your office on July 13, 1992, outlining additional work steps we propose to take at the referenced site with respect to additional assessment work. We will implement this work upon receipt of your formal concurrence.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

Very truly yours,
CHEVRON U.S.A. PRODUCTS COMPANY

Nancy Vukelich
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Eddy So, RWQCB-Bay Area
Mr. M.R. Purcell
File (9-0290Q2)

PACIFIC
ENVIRONMENTAL
GROUP, INC.

JUL 13 '92 PWM

July 8, 1992
Project 325-10.01

Ms. Nancy Vukelich
Chevron USA, Inc.
P.O. Box 5004
San Ramon, California 94583

Re: Chevron Service Station 9-0290
1802 Webster Street at Buena Vista Avenue
Alameda, California

Dear Ms. Vukelich:

This letter presents the findings of a quarterly groundwater sampling and analytical program performed by Pacific Environmental Group, Inc. (PACIFIC), for Chevron USA, Inc. (Chevron) at the site referenced above (Figure 1). Also included are the results of the separate-phase hydrocarbon (SPH) removal program.

SITE DESCRIPTION AND BACKGROUND

The service station is currently active with four underground fuel storage tanks and one underground waste oil tank. Two tank backfill wells (A-1 and A-2) and four groundwater monitoring wells (B-3 through B-6) are located on site and extend to an approximate depth of 20 feet below the ground surface. The service station layout is presented on Figure 1.

A SPH removal program and quarterly sampling program was initiated as a result of diesel fuel being accidentally pumped into backfill Well A-1 during tank testing activities in September 1991. Initially, the wells were monitored twice a month for SPH and bailed or purged of product if necessary. SPH monitoring and removal was reduced to monthly events after January 1992, and reduced to quarterly monitoring after May 1992.

1601 Civic Center Drive, Suite 202, Santa Clara, California 95050 (408) 984-6536 FAX: (408) 243-3911
620 Contra Costa Boulevard, Suite 209, Pleasant Hill, California 94523 (510) 825-0855 FAX: (510) 825-0882

FINDINGS

Groundwater from site monitoring wells was sampled on May 18, 1992, and analyzed for oil and grease, total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethylbenzene and xylenes (BTEX compounds), and for total petroleum hydrocarbons calculated as diesel (TPH-d). Approximately 5 gallons of SPH (71 gallons of SPH and water) were recovered during the latest monitoring period (March 10, 1992 through May 18, 1992). To date, approximately 1,946 gallons of SPH have been recovered. A summary of groundwater elevations and product thicknesses is presented in Table 1. A summary of the groundwater analytical results is presented in Table 2. Sampling and laboratory procedures are presented in Attachment A. Certified laboratory analytical reports and chain-of-custody documentation are presented in Attachment B.

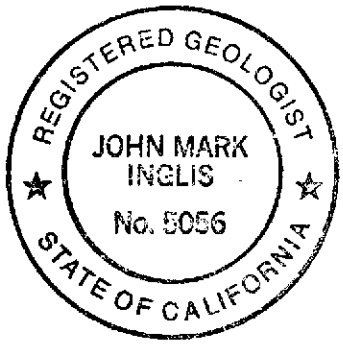
If you have any questions regarding this letter, please do not hesitate to call our office at (510) 825-0855.

Sincerely,

Pacific Environmental Group, Inc.

Jerry W. Mitchell
Project Geologist

J. Mark Inglis
Senior Hydrogeologist
RG 5056



Attachments: Table 1 - Groundwater Elevation Data
Table 2 - Groundwater Analytical Data
Figure 1 - Liquid Surface Elevation Contour Map

Attachment A - Sampling and Laboratory Procedures
Attachment B - Certified Laboratory Analytical Reports and Chain of Custody Documentation

Table 1
Groundwater Elevation Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOC (feet, MSL)	Depth to Liquid, TOC (feet)	Depth to Water, TOC (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
A-1	09/20/91	8.13	7.65	9.23	1.58	0.48
	10/09/91			6.67		1.46
	10/17/91		6.70	7.28	0.58	1.43
	10/23/91		6.77	7.42	0.65	1.36
	11/01/91		6.64	7.14	0.50	1.49
	11/07/91		6.63	7.14	0.51	1.50
	11/15/91		6.66	7.19	0.53	1.47
	11/21/91		6.74	7.28	0.54	1.28
	12/12/91		6.84	7.33	0.49	1.29
	12/30/91		6.40	6.76	0.36	1.73
	01/13/92		5.92	6.29	0.37	2.21
	01/22/92		5.98	6.43	0.45	2.15
	02/12/92		5.92	6.30	0.38	2.21
	03/09/92		4.99	5.30	0.31	3.14
	04/10/92		5.30	5.37	0.07	2.83
	05/18/92		5.74	6.14	0.40	2.39
A-2	09/20/91	8.00		7.73		0.27
	10/09/91			6.61		1.39
	10/17/91			6.66		1.34
	10/23/91		6.71	6.80	0.09	1.29
	11/01/91		6.55	6.63	0.15	1.45
	11/07/91		6.55	6.64	0.21	1.45
	11/15/91		6.62	6.81	0.19	1.38
	11/21/91		6.69	6.93	0.24	1.31
	12/12/91		6.76	6.97	0.15	1.24
	12/30/91		6.30	6.54	0.24	1.70
	01/13/92		5.84	5.92	0.08	2.16
	01/22/92		5.91	6.01	0.10	2.00
	02/12/92		5.80	6.06	0.26	2.20
	03/09/92		4.89	4.93	0.04	3.11
	04/10/92		5.20	5.20	<0.01	2.80
	05/18/92		5.64	5.66	0.02	2.36

Table 1 (continued)
Groundwater Elevation Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOC (feet, MSL)	Depth to Liquid, TOC (feet)	Depth to Water, TOC (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
B-3	09/20/91	8.01	6.93	6.94	0.01	1.08
	10/09/91			6.35		1.66
	10/17/91			6.44		1.57
	10/23/91			6.84		1.53
	11/01/91			6.31		1.70
	11/07/91			6.32		1.69
	11/15/91			6.39		1.62
	11/21/91			6.44		1.57
	12/12/91		6.82	6.82	<0.01	1.19
	12/30/91			6.37		1.64
	01/13/92			5.94		2.07
	01/22/92			5.99		2.02
	02/12/92		5.82	5.82	<0.01	2.19
	03/09/92			5.10		2.91
	04/10/92			5.36		2.65
	05/18/92			5.72		2.29
B-4	09/20/91	8.04		6.82		1.22
	10/09/91			6.63		1.41
	10/17/91			6.84		1.20
	10/23/91			6.87		1.17
	11/01/91			6.70		1.34
	11/07/91			6.73		1.31
	11/15/91			6.83		1.21
	11/21/91			6.84		1.20
	12/12/91			6.87		1.17
	12/30/91			6.46		1.58
	01/13/92			5.91		2.13
	01/22/92			5.95		2.09
	02/12/92			5.78		2.26
	03/09/92			5.09		2.95
	04/10/92			5.39		2.65
	05/18/92			5.59		2.45

Table 1 (Continued)
Groundwater Elevation Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOC (feet, MSL)	Depth to Liquid, TOC (feet)	Depth to Water, TOC (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
B-5	09/20/91	7.73		5.53		2.20
	10/09/91			5.31		2.42
	10/17/91			5.64		2.09
	10/23/91			5.68		2.05
	11/01/91			5.49		2.24
	11/07/91			5.54		2.19
	11/15/91			5.63		2.10
	12/12/91			5.68		2.05
	12/30/91			5.19		2.54
	01/13/92			4.65		3.07
	01/22/92			4.70		3.03
	02/12/92			4.45		3.28
	03/09/92			4.05		3.68
	04/10/92			4.43		3.30
	05/18/92			3.79		3.94

Table 1 (Continued)
Groundwater Elevation Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOC (feet, MSL)	Depth to Liquid, TOC (feet)	Depth to Water, TOC (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
B-6	09/20/91	8.55		6.85		1.70
	10/09/91			6.83		1.72
	10/17/91			6.90		1.65
	10/23/91			6.93		1.62
	11/01/91			6.78		1.77
	11/07/91			6.81		1.74
	11/15/91			6.88		1.67
	11/21/91			6.95		1.60
	12/12/91			7.14		1.41
	12/30/91			6.50		2.05
	01/13/92			6.19		2.36
	01/22/92			6.27		2.28
	02/12/92			6.12		2.43
	03/09/92			5.28		3.27
	04/10/92			5.48		3.07
	05/18/92			5.90		2.65

MSL = USGS mean sel level datum
TOC = top of casing

Table 2
Groundwater Analytical Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	TPH-Gasoline (ppb)	TPH-Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
A-1	05/18/92	----------Well contained 0.40 feet of separate-phase hydrocarbons----------					
A-2	09/20/91	8,100	5,100*	860	14	110	53
	02/12/92	NA	NA	NA	NA	NA	NA
	05/18/92	----------Well contained 0.02 feet of seperate-phase hydrocarbons----------					
B-3	05/18/92	6,200	250**	550	58	13	51
B-4	09/20/91	19,000	1,400*	710	160	650	2,000
	02/12/92	15,000	860*	920	75	520	940
	05/18/92	19,000	ND	2,000	97	560	1,200
Detection Limits:		50	50	0.5	0.5	0.5	0.5

TPH = total petroleum hydrocarbons
ppb = parts per billion
ND = none detected
NA = not analyzed
* = chromatograph pattern in diesel range typical of gasoline
** = atypical chromatograph pattern; see certified analytical reports

Table 2
(continued)
Groundwater Analytical Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	TPH-Gasoline (ppb)	TPH-Diesel (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
B-5	09/20/91	ND	ND	ND	ND	ND	ND
	02/12/92	ND	ND	ND	ND	ND	ND
	05/18/92	390	ND	39	1.9	11	24
B-6	09/20/91	ND	NA	ND	ND	ND	ND
	02/12/92	ND	ND	ND	ND	ND	ND
	05/18/92	ND	ND	ND	ND	ND	ND
Detection Limits:		50	50	0.5	0.5	0.5	0.5

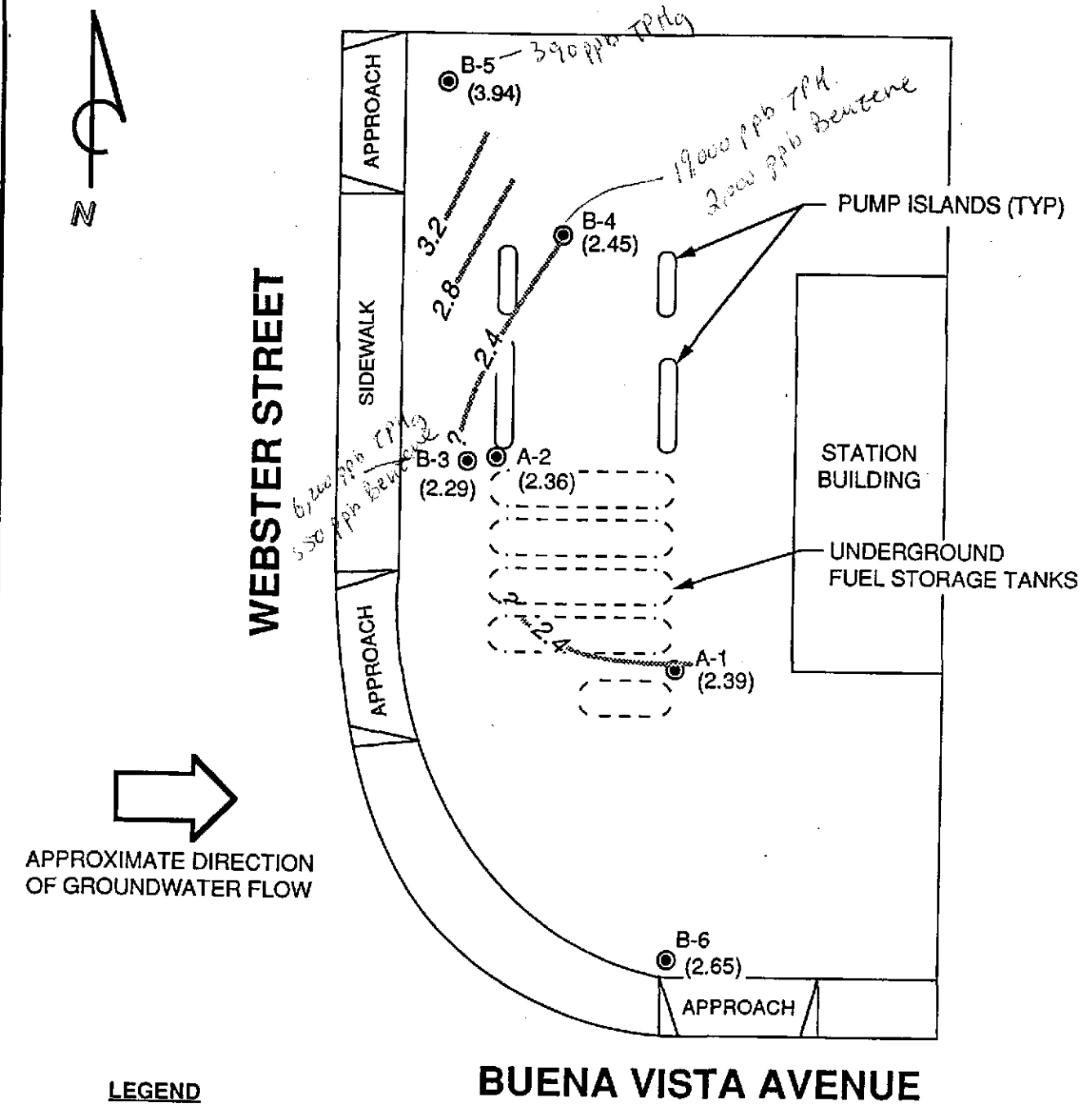
TPH = total petroleum hydrocarbons
ppb = parts per billion
ND = none detected
NA = not analyzed
* = chromatograph pattern in diesel range typical of gasoline
** = atypical chromatograph pattern; see certified analytical reports

Table 2
(continued)
Groundwater Analytical Data

Chevron Service Station 9-0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Oil and Grease (ppb)
A-1	05/18/92	NA
A-2	05/18/92	NA
B-3	05/18/92	ND
B-4	05/18/92	ND
B-5	05/18/92	ND
B-6	05/18/92	ND
Detection limit:		5,000

ppb = parts per billion
ND = none detected
NA = not analyzed due to seperate-phase hydrocarbons



LEGEND

A-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

(2.39) LIQUID SURFACE ELEVATION IN FEET - MSL, 5-18-92

2.4 LIQUID SURFACE ELEVATION CONTOUR IN FEET - MSL, 5-18-92

SCALE

0 30 60 FEET

PACIFIC ENVIRONMENTAL GROUP, INC.

CHEVRON USA STATION 9-0290
1802 Webster Street at Buena Vista Avenue
Alameda, California

LIQUID SURFACE ELEVATION CONTOUR MAP

FIGURE: 1

PROJECT: 325-10.01

ATTACHMENT A

SAMPLING AND LABORATORY PROCEDURES

ATTACHMENT A
SAMPLING AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure consists of first measuring the water level in each well, and checking each well for the presence of separate-phase hydrocarbons using a clear Teflon bailer. If the wells did not contain separate-phase hydrocarbons they were then purged of approximately four casing volumes (or to dryness) with the use of a bailer. During purging, temperature, pH, and electrical conductivity were monitored in order to document that these parameters were stable prior to collecting samples. After purging, water levels were allowed to partially restabilize before sampling. Groundwater samples were collected using a Teflon bailer, placed into the appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a state-certified laboratory. Chain-of-custody documentation is attached.

Laboratory Analysis

Groundwater samples were analyzed for the presence of total petroleum hydrocarbons calculated as gasoline (TPH-g) and for benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) according to EPA Methods 8015/5030 and 8020. In addition groundwater samples were analyzed for total petroleum hydrocarbons calculated as diesel (TPH-d) by EPA Method 8015 (oil and grease by EPA Method 503E).

ATTACHMENT B

CERTIFIED LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

SAMPLING

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 33[illegible]

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 13118
CLIENT: Pacific Environmental Group
CLIENT JOB NO.: 325-10.01

DATE RECEIVED: 05/19/92
DATE REPORTED: 05/27/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
13118- 1	B-3	05/18/92	05/27/92
13118- 2	B-4	05/18/92	05/27/92
13118- 3	B-5	05/18/92	05/22/92
13118- 4	B-6	05/18/92	05/22/92
13118- 5	TB-1	05/18/92	05/27/92
13118- 6	EB-1	05/18/92	05/26/92
13118- 7	DI-1	05/18/92	/ /

Laboratory Number:	13118 1	13118 2	13118 3	13118 4	13118 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	ND<5000	ND<5000	ND<5000	ND<5000	NA
TPH/GASOLINE RANGE:	6200	19000	390	ND<50	ND<50
TPH/DIESEL RANGE:	* 250	ND<50	ND<50	ND<50	NA
BENZENE:	550	2000	39	ND<0.5	ND<0.5
TOLUENE:	58	97	1.9	ND<0.5	ND<0.5
ETHYL BENZENE:	13	560	11	ND<0.5	ND<0.5
XYLENES:	51	1200	24	ND<0.5	ND<0.5

Laboratory Number:	13118 6	13118 7
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)	
OIL AND GREASE:	NA	NA
TPH/GASOLINE RANGE:	ND<50	NA
TPH/DIESEL RANGE:	NA	NA
BENZENE:	ND<0.5	NA
TOLUENE:	ND<0.5	NA
ETHYL BENZENE:	ND<0.5	NA
XYLENES:	ND<0.5	NA

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

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: 13118

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 503E:
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: 01/03/92

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Standard Reference: 10/12/91

W-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L
Standard Reference: 04/07/92

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	04/02/91	10mg	100/90	11	50-125
Diesel	01/03/92	1000ug	88/82	6.7	64-124
Gasoline	04/07/92	200ng	94/101	7.1	76-111
Benzene	04/07/92	200ng	102/102	0	78-110
Toluene	04/07/92	200ng	98/98	0	78-111
Ethyl Benzene	04/07/92	200ng	96/97	0.5	78-118
Total Xylene	04/07/92	600ng	102/103	1.0	73-113

* Does not match typical diesel pattern.

Richard Srna, Ph.D.
Cecilia G. Joaquin (for)
Laboratory Director

Fax copy of Lab Report and COC to Chevron Cont: ☐ Yes ☐ No 5/18

Chain-of-Custody Record

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

Chevron Facility Number: 9-0290
Facility Address: 1802 Webster St, Alameda
Consultant Project Number: 325-10.01
Consultant Name: Pacific Environmental Group
Address: 1601 Civic Center Drive Ste 202
Santa Clara, CA 95050
Project Contact (Name): (Phone) (408)984-6536 Fax Number) 243-3911

Chevron Contact (Name): Nancy Vukelich
(Phone):
Laboratory Name: Superior
Laboratory Release Number: 6148570
Samples Collected by (Name): Rich Igantowicz
Collection Date: 5-18-92
Signature: Rich Igantowicz

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	Lead (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
B-3		3	W	G	1305	HCl	Yes	X												
					↓	Ø			X	X										
B-4					1220	HCl		X												
					↓	Ø			X	X										
B-5					1145	HCl		X												
					↓	Ø			X	X										
B-6					1050	HCl		X												
		↓			↓	Ø			X	X										
TB-1		2			—	HCl		X												
EB-1		3			1020	HCl		X												
DI-1 X		↓	↓	V.	1022	HCl	↓	X												X Hold Unless Hit on EB-1

Analyses To Be Performed

Please initial:
Appropriate containers
Samples preserved
VOA's without headspace
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Rich Igantowicz	PEG	5/19/92 1430	Gordon Mack	EXPRESS-IT	5/19/92 1430
R2 D Bader EDF	Organization	Date/Time	Relinquished By (Signature) D Bader	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 1610 5/19/92

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