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

April 27, 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 removal report dated April 6, 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) and BTEX. TPH-G, TPH-D and Benzene were detected in monitor well B-4 only at concentrations of 15,000, 860 and 920 ppb, respectively. The laboratory has indicated that the chromatograph pattern was typical of weathered gasoline and is not necessarily indicative of a diesel source. Separate-phase hydrocarbons were observed in monitor well B-3 and tank pit backfill wells A-1 and A-2 at measured thicknesses of a sheen, .31 and .04-feet, respectively. To date, approximately 1,941 gallons of separate-phase hydrocarbons has been removed since the implementation of the bailing program in September, 1991. Depth to ground water was measured at approximately 4.8-feet below grade, and the direction of flow is to the east.

A sample of the separate-phase material has been submitted to Chevron's laboratory for identification of the product. This was performed due to the discrepancy in amount of product recovered versus the amount of product that was accidentally dispensed into the well. It is surmised that we may have uncovered a pre-existing problem from the initial leak discovered in 1982. The product identification will allow us to assess if all of the diesel that was inadvertently dispensed into the backfill well has been recovered and support this theory. We are currently evaluating the data for appropriate next actions with respect to additional site assessment activities.

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.

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
Ms. S. A. Willer
File (9-0290Q1)

PACIFIC
ENVIRONMENTAL
GROUP, INC.

April 6, 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 (Figures 1 and 2). 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 2.

A separate-phase hydrocarbon 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.

FINDINGS

Groundwater from site monitoring wells was sampled on February 12, 1992, and analyzed for oil and grease, low-boiling hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethylbenzene and xylenes (BTEX compounds), and for high-boiling hydrocarbons calculated as diesel (TPH-d). During January 1992, the

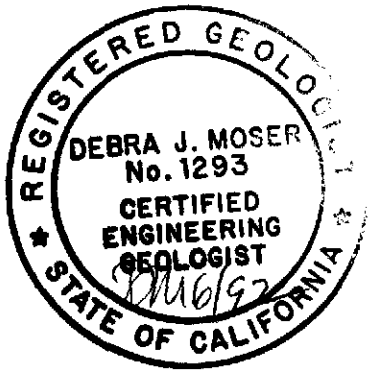
1601 Civic Center Drive, Suite 202, Santa Clara, California 95050 (408) 984-6536 FAX: (408) 243-3911
620 Contra Costa Boulevard, Suite 209, Pleasant Hill, California 94523 (510) 825-0855 FAX: (510) 825-0882

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. Approximately 53 gallons of SPH (210 gallons of SPH and water) were recovered during the latest monitoring period (December 30, 1991 through March 9, 1992). To date, approximately 1,941 gallons of SPH have been recovered. A summary of groundwater elevations and product thickness is presented in Table 1. A summary of the groundwater analytical results is presented in Table 2 and Figure 2. Sampling and laboratory procedures are presented in Attachment A. Certified analytical reports and chain-of-custody documentation are presented in Attachment B.

Sincerely,

Pacific Environmental Group, Inc.

Jerry W. Mitchell
Project Geologist



Debra J. Moser
Senior Geologist
CEG 1293

Attachments: Table 1 - Groundwater Elevation Data
Table 2 - Groundwater Analytical Data
Figure 1 - Site Location Map
Figure 2 - Dissolved Gasoline/Benzene Concentration 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 0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOB (feet, MSL)	Depth to Liquid, TOB (feet)	Depth to Water, TOB (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
A-1	09/20/91	8.41	7.93	9.51	1.58	0.48
	10/09/91			6.95		1.46
	10/17/91		6.98	7.56	0.58	1.43
	10/23/91		7.05	7.70	0.65	1.36
	11/01/91		6.92	7.42	0.50	1.49
	11/07/91		6.91	7.42	0.51	1.50
	11/15/91		6.94	7.47	0.53	1.47
	11/21/91		7.02	7.56	0.54	1.28
	12/12/91		7.12	7.61	0.49	1.29
	12/30/91		6.68	7.04	0.36	1.73
	01/13/92		6.20	6.57	0.37	2.21
	01/22/92		6.26	6.71	0.45	2.15
	02/12/92		6.20	6.58	0.38	2.21
	03/09/92		5.27	5.58	0.31	3.14
A-2	09/20/91	8.32		8.05		0.27
	10/09/91			6.93		1.39
	10/17/91			6.98		1.34
	10/23/91		7.03	7.12	0.09	1.29
	11/01/91		6.87	6.95	0.15	1.45
	11/07/91		6.87	6.96	0.21	1.45
	11/15/91		6.94	7.13	0.19	1.38
	11/21/91		7.01	7.25	0.24	1.31
	12/12/91		7.08	7.29	0.15	1.24
	12/30/91		6.62	6.86	0.24	1.70
	01/13/92		6.16	6.24	0.08	2.16
	01/22/92		6.23	6.33	0.10	2.00
	02/12/92		6.12	6.38	0.26	2.20
	03/09/92		5.21	5.25	0.04	3.11

Table 1 (continued)
Groundwater Elevation Data

Chevron Service Station 0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOB (feet, MSL)	Depth to Liquid, TOB (feet)	Depth to Water, TOB (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
B-3	09/20/91	8.27	7.19	7.20	0.01	1.08
	10/09/91			6.61		1.66
	10/17/91			6.70		1.57
	10/23/91			6.74		1.53
	11/01/91			6.57		1.70
	11/07/91			6.58		1.69
	11/15/91			6.65		1.62
	11/21/91			6.70		1.57
	12/12/91		7.08	7.08	<0.01	1.19
	12/30/91			6.63		1.64
	01/13/92			6.20		2.07
	01/22/92			6.25		2.02
	02/12/92		6.08	6.08	<0.01	2.19
	03/09/92			5.36		2.91
B-4	09/20/91	8.17		6.95		1.22
	10/09/91			6.76		1.41
	10/17/91			6.97		1.20
	10/23/91			7.00		1.17
	11/01/91			6.83		1.34
	11/07/91			6.86		1.31
	11/15/91			6.96		1.21
	11/21/91			6.97		1.20
	12/12/91			7.00		1.17
	12/30/91			6.59		1.58
	01/13/92			6.04		2.13
	01/22/92			6.08		2.09
	02/12/92			5.91		2.26
	03/09/92			5.22		2.95

Table 1 (Continued)
Groundwater Elevation Data

Chevron Service Station 0290
1802 Webster Street
Alameda, California

Well Number	Sample Date	Well Elevation, TOB (feet, MSL)	Depth to Liquid, TOB (feet)	Depth to Water, TOB (feet)	Hydrocarbon Thickness (feet)	Liquid Elevation (feet, MSL)
B-5	09/20/91	7.86		5.66		2.20
	10/09/91			5.44		2.42
	10/17/91			5.77		2.09
	10/23/91			5.81		2.05
	11/01/91			5.62		2.24
	11/07/91			5.67		2.19
	11/15/91			5.76		2.10
	12/12/91			5.81		2.05
	12/30/91			5.32		2.54
	01/13/92			4.78		3.07
	01/22/92			4.83		3.03
	02/12/92			4.58		3.28
	03/09/92			4.18		3.68
B-6	09/20/91	8.65		6.95		1.70
	10/09/91			6.93		1.72
	10/17/91			7.00		1.65
	10/23/91			7.03		1.62
	11/01/91			6.88		1.77
	11/07/91			6.91		1.74
	11/15/91			6.98		1.67
	11/21/91			7.05		1.60
	12/12/91			7.24		1.41
	12/30/91			6.60		2.05
	01/13/92			6.29		2.36
	01/22/92			6.37		2.28
	02/12/92			6.22		2.43
	03/09/92			5.38		3.27

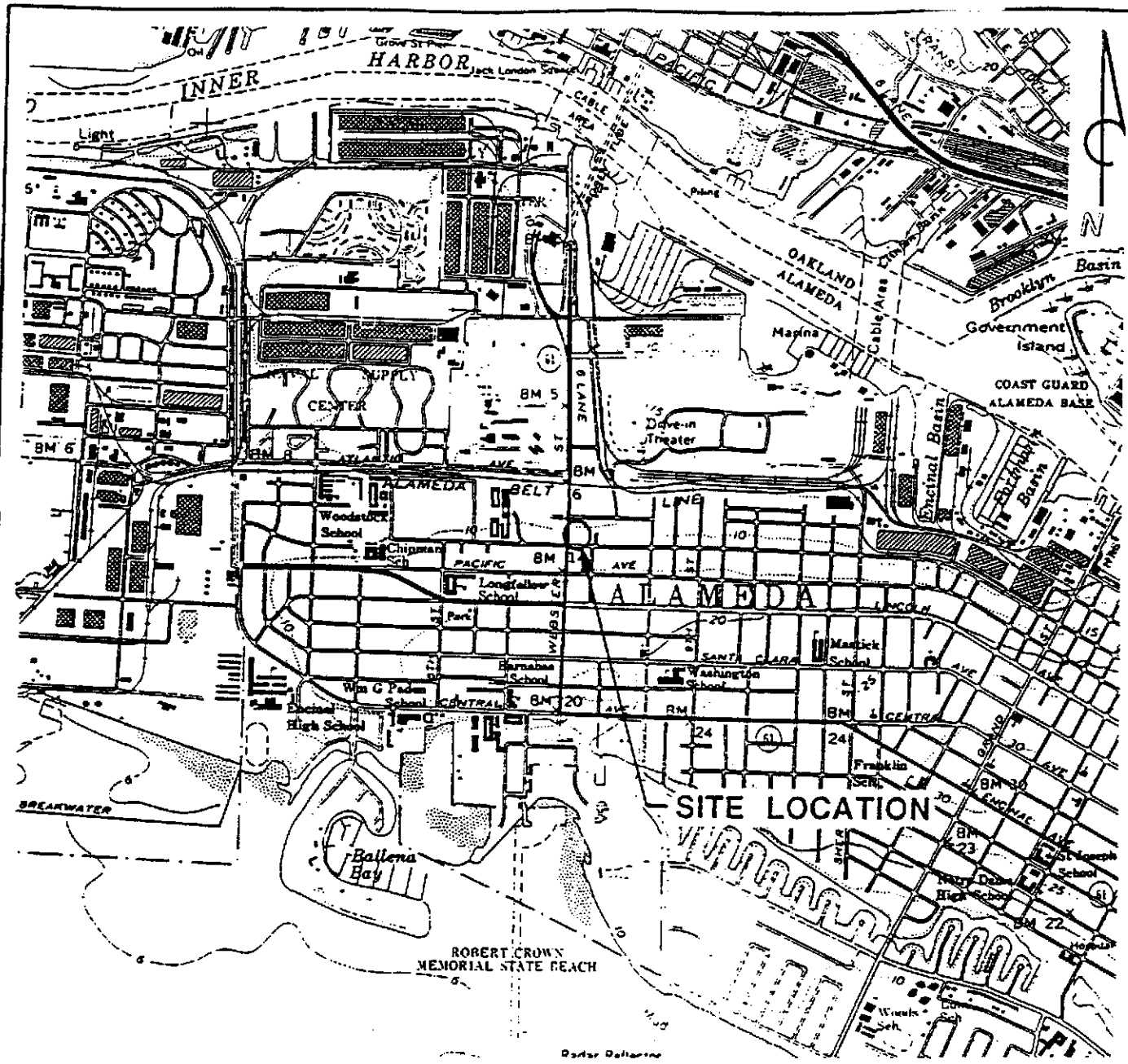
MSL = USGS mean sel level datum
TOB = top of box

Table 2
Groundwater Analytical Data

Chevron Service Station 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-2	09/20/91	8,100	5,100*	860	14	110	53
	02/12/92	NA	NA	NA	NA	NA	NA
B-4	09/20/91	19,000	1,400*	710	160	650	2,000
	02/12/92	15,000	860*	920	75	520	940
B-5	09/20/91	ND	ND	ND	ND	ND	ND
	02/12/92	ND	ND	ND	ND	ND	ND
B-6	09/20/91	ND	NA	ND	ND	ND	ND
	02/12/92	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



QUADRANGLE LOCATION

REFERENCES:
USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: OAKLAND WEST, CALIFORNIA
DATED: 1959 REVISED: 1980

SCALE

2000 0 2000 FEET

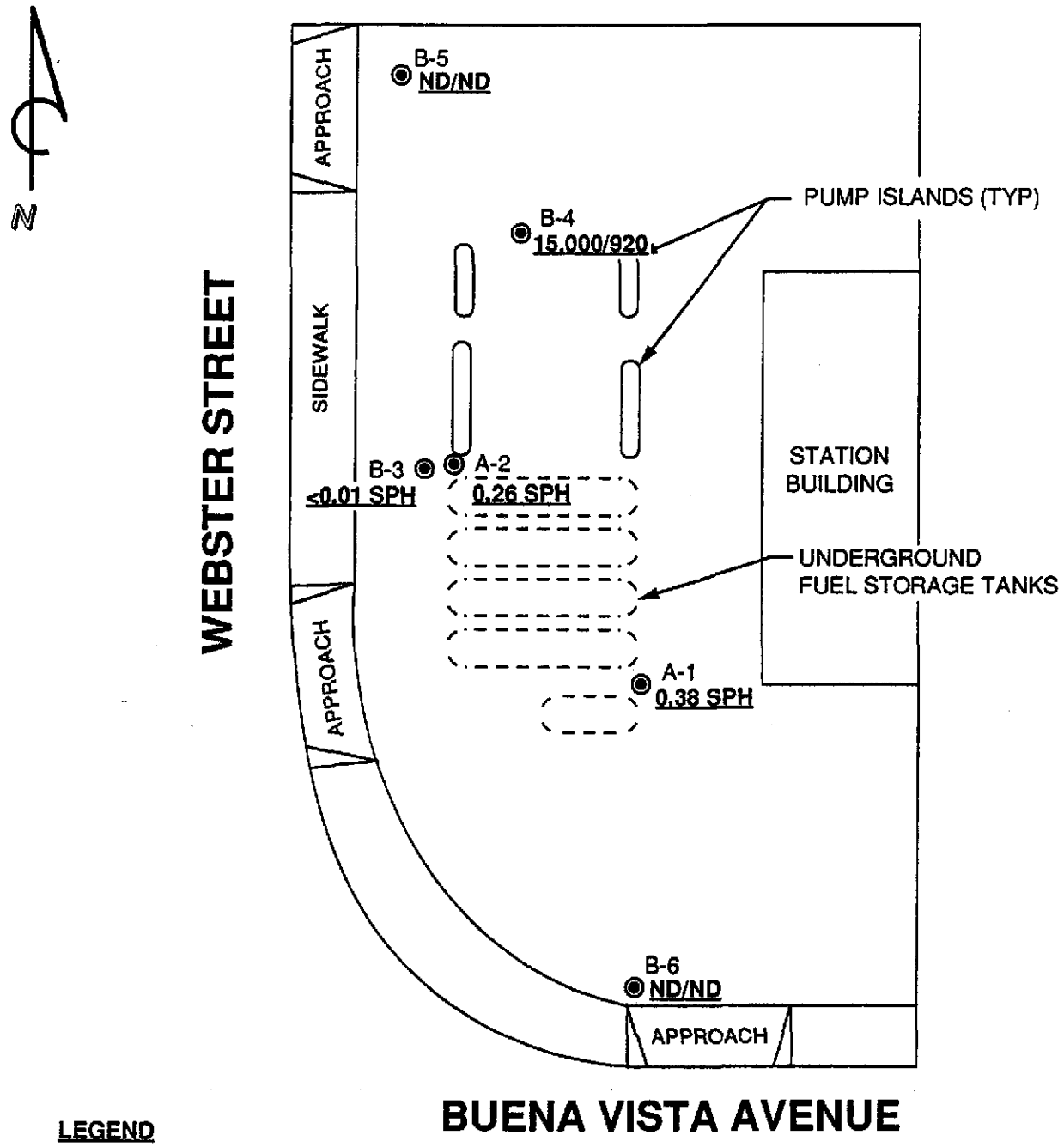
PACIFIC ENVIRONMENTAL GROUP, INC.

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

SITE LOCATION MAP

FIGURE: 1

PROJECT: 325-10.01



LEGEND

A-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

15,000/920 GASOLINE/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 2-12-92

0.38 SPH SEPARATE-PHASE HYDROCARBON THICKNESS IN FEET, 2-12-92

ND NON-DETECTABLE LEVELS

SCALE

0 30 60 FEET

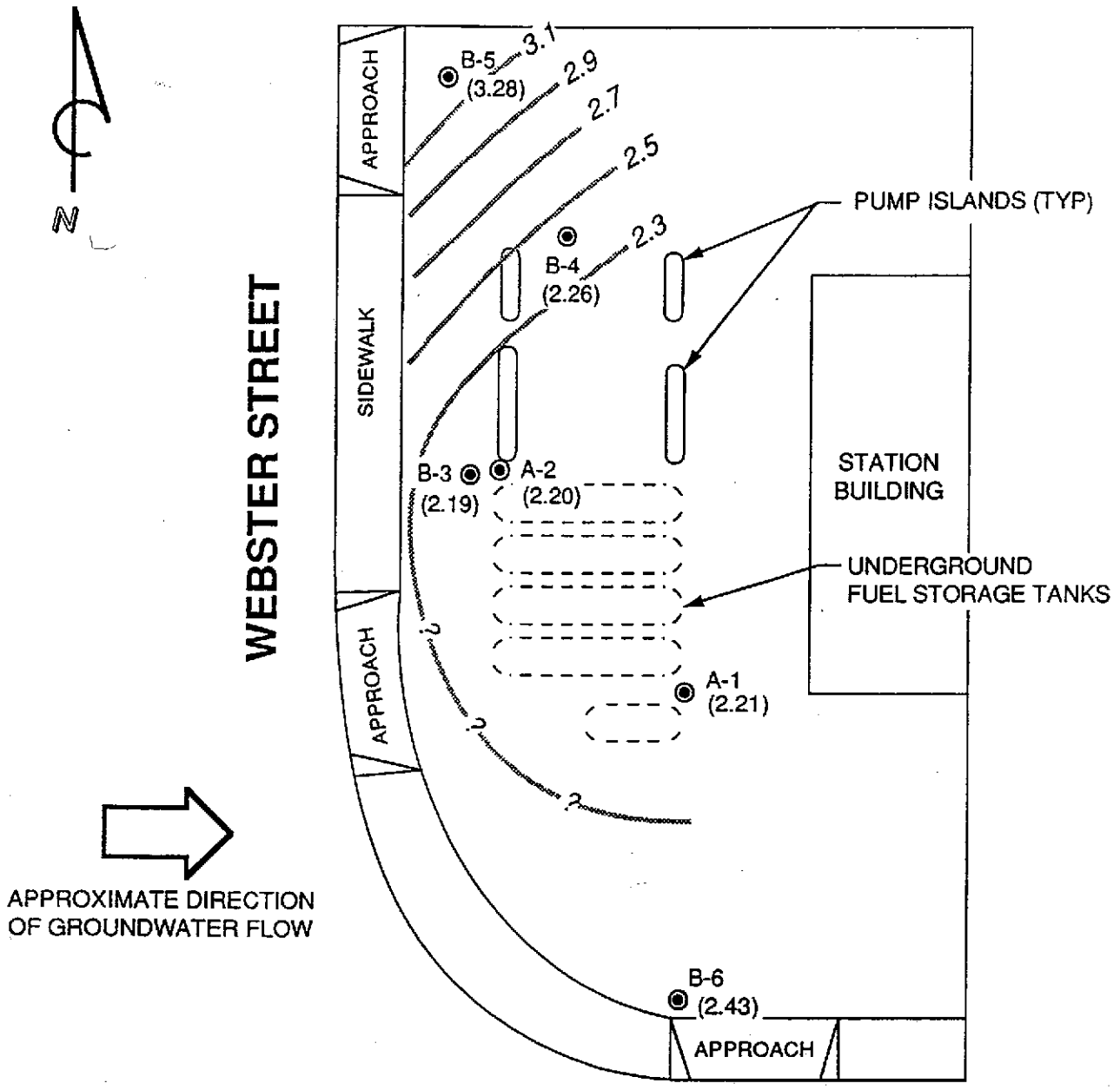
PACIFIC ENVIRONMENTAL GROUP, INC.

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

DISSOLVED GASOLINE/BENZENE CONCENTRATION MAP

FIGURE: **2**

PROJECT: 325-10.01



LEGEND

A-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

(2.21) LIQUID SURFACE ELEVATION IN FEET - MSL, 2-12-92

2.2 LIQUID SURFACE ELEVATION CONTOUR IN FEET - MSL, 2-12-92

SCALE

0 30 60 FEET

PACIFIC ENVIRONMENTAL GROUP, INC.	**CHEVRON USA STATION 9-0290** 1802 Webster Street at Buena Vista Avenue Alameda, California	FIGURE: 3
	LIQUID SURFACE ELEVATION CONTOUR MAP	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 low-boiling hydrocarbons (calculated as gasoline), and for benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) according to EPA Methods 8015/5030 and 8020. In addition groundwater samples were analyzed for TPH-diesel by EPA Method 8015 (oil and grease by EPA Method 503E).

ATTACHMENT B

CERTIFIED LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

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

SAMPLING

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12807
CLIENT: Pacific Environmental Group
CLIENT JOB NO.: 325-10.01

DATE RECEIVED: 02/13/92
DATE REPORTED: 02/18/92

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12807- 1	B-4	02/12/92	02/17/92
12807- 2	B-5	02/12/92	02/17/92
12807- 3	B-6	02/12/92	02/17/92
12807- 4	TB1	02/12/92	02/14/92
12807- 5	EB1	02/12/92	02/14/92
12807- 6	DI1	02/12/92	/ /

Laboratory Number:	12807 1	12807 2	12807 3	12807 4	12807 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	ND<5000	ND<5000	ND<5000	NA	NA
TPH/GASOLINE RANGE:	15000	ND<50	ND<50	ND<50	ND<50
TPH/DIESEL RANGE:	860*	ND<50	ND<50	NA	NA
BENZENE:	920	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TOLUENE:	75	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	520	ND<0.5	ND<0.5	ND<0.5	ND<0.5
XYLENES:	940	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Laboratory Number:	12807 6
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)
OIL AND GREASE:	NA
TPH/GASOLINE RANGE:	NA
TPH/DIESEL RANGE:	NA
BENZENE:	NA
TOLUENE:	NA
ETHYL BENZENE:	NA
XYLENES:	NA

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

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 12807

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

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 11/29/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	04/02/91	10mg	70/68	2.9	50-125
Diesel	01/03/92	1000ug	113/106	6.2	64-124
Gasoline	11/29/91	200ng	84/86	1.8	70-114
Benzene	11/29/91	200ng	96/92	4.7	78-123
Toluene	11/29/91	200ng	93/89	4.4	77-119
Ethyl Benzene	11/29/91	200ng	98/94	4.0	79-122
Total Xylene	11/29/91	600ng	88/84	4.3	78-119

* Diesel range concentration reported. The pattern observed in the chromatogram was not typical of diesel, and the chromatogram showed mostly hydrocarbons lighter then those typically found in Diesel #2.

Richard Srna, Ph.D.
Laboratory Director

Fax copy ' Lab Report and COC to Chevron Cont : ☐ Yes ☐ No 12807

Chain-of-Custoc -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, Alameda, CA
Consultant Project Number 325-10.01
Consultant Name Pacific Environmental Group
Address 1601 Civic Center Drive Ste. 202
Project Contact (Name) Santa Clara, CA 95050
(Phone) (408)984-6536 Fax Number) 243-3911

Chevron Contact (Name) Nancy Vukelevich
(Phone) ~~Superior~~
Laboratory Name Superior
Laboratory Release Number 6148570 -
Samples Collected by (Name) Rich Ignatowicz
Collection Date 2-12-92
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)	Analyses 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)	Remarks
B-4		3	W	G	1435	HCl	Yes	X								*Hold on analyzing DI1. Analyze only if EB1 hit occurs.
↓					↓	Ø			X	X						
B-5					1355	HCl		X								
↓					↓	Ø			X	X						
B-6		↓	↓	↓	1305	HCl	↓	X								
↓		↓	↓	↓	↓	Ø	↓		X	X						
TB1		2	↓	↓	—	HCl ~~Ø~~	↓	X								
EB1 *		3	↓	↓	1220	HCl	↓	X								
DI1 *		3	↓	↓	1220	HCl	↓	X								

Appropriate containers.
Samples preserved.
VOA's without headspace.
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	PEG	2/13/92 1205	A. Bohm x790	Express-it	2/13 1205
Relinquished By (Signature) x701	Organization Exp It	Date/Time 1427 3/13/92	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 2/13/92

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