BACE Environmental
A Division Of
Brunsing Associates, Inc.

February 13, 1995

Project No. 29.7

Ms. Normita Callison
Pacific Coast Building Products
4290 Roseville Road
North Highlands, California 95660

RE: Quarterly Groundwater Monitoring Report: December 1994
Pacific Supply Company
1735 24th Street
Oakland, California

Dear Ms. Callison:

This report has been prepared to document groundwater monitoring performed by BACE Environmental, a division of Brunsing Associates, Inc. (BAI) at the Pacific Supply Company property at 1735 24th Street, Oakland, California.

Scope of Work

The scope of work performed during this reporting period included testing for the existence of free product, calculating groundwater elevations, and collecting groundwater samples from on-site monitoring wells MW-1 through MW-4 and off-site wells MW-6 and MW-7 (Plate 1). Well MW-5 was not sampled during this event because the well location was covered by an asphalt/concrete layer. Prior to the next sampling event, the MW-5 well monument will be uncovered and inspected for any damage that may have occurred. If the well has been damaged, BAI staff will notify the Pacific Supply Company and the Alameda County Health Agency.

Site Background

Monitoring wells MW-1 through MW-5 were constructed in September, 1988 as the first phase of a soil and groundwater investigation. Monitoring wells MW-6 and MW-7 were constructed on December 19, 1989 during Phase II of the same investigation. The construction and sampling of these wells are documented in BAI's Report of Findings, dated March 23, 1990. Table 1 is a cumulative summary of the groundwater analytical data available for the wells as documented in the March

23, 1990 Report of Findings and subsequent quarterly groundwater monitoring reports.

Groundwater Elevations

Depth to groundwater measurements were obtained on December 13, 1994 for wells MW-1 through MW-4, MW-6 and MW-7. The groundwater depths and elevations relative to mean sea level are summarized in Table 2. Groundwater flow generally appears to be northerly towards wells MW-1 and MW-2. Monitoring well MW-7 continues to indicate an anomalously low groundwater elevation by a magnitude of several feet.

Groundwater Sampling

Groundwater monitoring wells MW-1 through MW-4, MW-6 and MW-7 were sampled on December 13, 1994 using the methods described in Appendix A. Free product was not found in any of the wells. Groundwater samples were transported to BACE Analytical and Field Services (BAFS) for analyses of petroleum hydrocarbon constituents using the following analytical methods:

- Total Petroleum Hydrocarbons (TPH) as gasoline
  -EPA Test Method 5030/GCFID;

- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX)
  -EPA Test Method 5030/8020;

Based on a September 8, 1994 letter received from Jennifer Eberle of the Alameda County Health Care Services, sampling for organic lead has been discontinued.

Groundwater Analytical Results

Analytical laboratory results for the December 13, 1994 groundwater monitoring round are summarized in Table 1. The TPH as gasoline results are shown on Plate 2. The laboratory report and Chain-of-Custody form for this sampling event are included in Appendix B.

If you have any questions, please contact Mike Velzy at (415) 364-9030.

Sincerely,

Joel Bruxvoort
Project Geologist

Diana M. Dickerson R.G., R.E.A
Senior Geologist

REGISTERED GEOLOGIST
DIANA M. DICKERSON
NO. 6013
Expires 2/29/96
STATE OF CALIFORNIA

Attachments:
Table 1 - Analytical Data Summary
Table 2 - Groundwater Elevation Data
Plate 1- Groundwater Elevations, December 13, 1994
Plate 2- Total Petroleum Hydrocarbons as Gasoline, December 13, 1994
Appendix A- Monitoring Well Sampling Protocol
Appendix B - Analytical Laboratory Report

cc: Jennifer Eberle, Alameda County Health Agency
Tony DeJohn, Pacific Supply Company

TABLE 1
ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

Well Identification	Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L
MW-1	10/14/88	1.1	1.1	ND	–	ND	–
MW-1	12/29/89	ND	ND	ND	ND	ND	ND (1)
MW-1	5/28/92	ND	ND	ND	ND	ND	0.003(2)
MW-1	9/3/92	ND	ND	ND	ND	ND	0.12 (2)
MW-1	11/24/92	ND	ND	ND	ND	ND	0.017 (2)
MW-1	3/9/93	ND	ND	ND	ND	ND	ND (1)
MW-1	7/21/93	ND	ND	ND	ND	ND	ND (1)
MW-1	11/3/93	ND	ND	ND	ND	ND	ND (1)
MW-1	2/1/94	ND	ND	ND	ND	ND	ND (1)
MW-1	6/2/94	ND	ND	ND	ND	ND	ND (1)
MW-1	9/1/94	ND	ND	ND	ND	ND	ND (1)
MW-1	12/13/94	ND	ND	ND	ND	ND	–
MW-2	10/14/88	11	23	20	–	16	–
MW-2	12/29/89	4	200	6.7	ND	ND	0.22 (1)
MW-2	5/28/92	8.9	550	48	ND	13	ND (2)
MW-2	9/3/92	2.1	760	6.2	1.8	5.1	0.006 (2)
MW-2	11/24/92	4.2	370	15	3.4	9.5	ND (2)
MW-2	3/9/93	4.3	280	14	3.7	7.1	ND (1)
MW-2	7/21/93	3.4	250	9.6	2.5	11	ND(1)
MW-2	11/4/93	2.5	230	7.8	2.1	9.9	ND(1)
MW-2	2/1/94	3.4	240	17	ND	15	ND(1)
MW-2	6/2/94	3.0	150	9.8	3.0	10	ND(1)
MW-2	9/1/94	2.1	120	9.8	2.0	9.6	ND(1)
MW-2	12/13/94	2.0	200	10	2.7	11	–

TABLE 1
ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

Well Identification	Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L
MW-3	10/14/88	3.4	ND	ND	–	2.8	–
MW-3	12/29/89	ND	ND	ND	ND	ND	0.205 (1)
MW-3	5/28/92	ND	0.8	0.5	ND	ND	0.016 (2)
MW-3	9/3/92	ND	ND	ND	ND	ND	0.033 (2)
MW-3	11/24/92	ND	ND	ND	ND	ND	0.011 (2)
MW-3	3/9/93	0.1	1.8	ND	ND	ND	ND(1)
MW-3	7/21/93	ND	ND	ND	ND	ND	ND(1)
MW-3	11/4/93	0.07	0.6	0.5	ND	ND	ND(1)
MW-3	2/1/94	ND	ND	ND	ND	ND	ND(1)
MW-3	6/2/94	0.06	ND	ND	ND	ND	ND(1)
MW-3	9/1/94	0.07	1.7	0.9	ND	ND	ND(1)
MW-3	12/13/94	0.06	1.4	ND	ND	ND	–
MW-4	10/14/88	4.6	1.2	ND	–	2.2	–
MW-4	12/29/89	0.5	0.7	ND	ND	ND	ND (1)
MW-4	5/28/92	0.27	8.8	1	ND	3.2	0.030 (2)
MW-4	9/3/92	0.20	4.5	4.4	ND	1.9	0.022 (2)
MW-4	11/24/92	0.14	3.2	3.2	ND	1.0	0.005 (2)
MW-4	3/9/93	0.47	10	ND	ND	2.5	ND (1)
MW-4	7/21/93	0.28	4.4	5.9	ND	ND	ND(1)
MW-4	11/4/93	0.08	1.3	1.6	ND	ND	ND(1)
MW-4	2/1/94	0.08	ND	ND	ND	ND	ND(1)
MW-4	6/2/94	0.30	3.1	2.9	ND	0.8	ND(1)

TABLE 1
ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

Well Identification	Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L
MW-4	9/1/94	0.12	1.6	ND	ND	ND	ND(1)
MW-4	12/13/94	ND	ND	ND	ND	ND	–
MW-5	10/14/88	3.2	ND	ND	–	ND	–
MW-5	12/29/89	ND	ND	ND	ND	ND	ND (1)
MW-5	5/28/92	ND	ND	ND	ND	ND	0.008 (2)
MW-5	9/3/92	ND	ND	ND	ND	ND	0.034 (2)
MW-5	11/24/92	ND	ND	ND	ND	ND	0.011 (2)
MW-5	3/9/93	ND	ND	ND	ND	ND	ND (1)
MW-5	7/21/93	ND	ND	ND	ND	ND	ND(1)
MW-5	11/4/93	ND	ND	ND	ND	ND	ND(1)
MW-5	2/1/94	ND	ND	ND	ND	ND	ND(1)
MW-5	6/2/94	ND	ND	ND	ND	ND	ND(1)
MW-5	9/1/94	ND	ND	ND	ND	ND	ND(1)
MW-6	12/29/89	1.1	5.4	4.5	ND	ND	ND (1)
MW-6	3/9/93	2.3	2.3	2.8	ND	3.1	ND (1)
MW-6	7/21/93	0.59	ND	7.6	ND	ND	ND(1)
MW-6	11/4/93	1.5	ND	1.2	ND	0.7	ND(1)
MW-6	2/1/94	1.9	2.5	3.9	1.6	1.1	ND(1)
MW-6	6/2/94	1.3	ND	1	ND	ND	ND(1)
MW-6	9/1/94	2.2	ND	1.7	ND	ND	ND(1)
MW-6	12/13/94	0.66 (3)	ND	ND	ND	ND	–

TABLE 1
ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

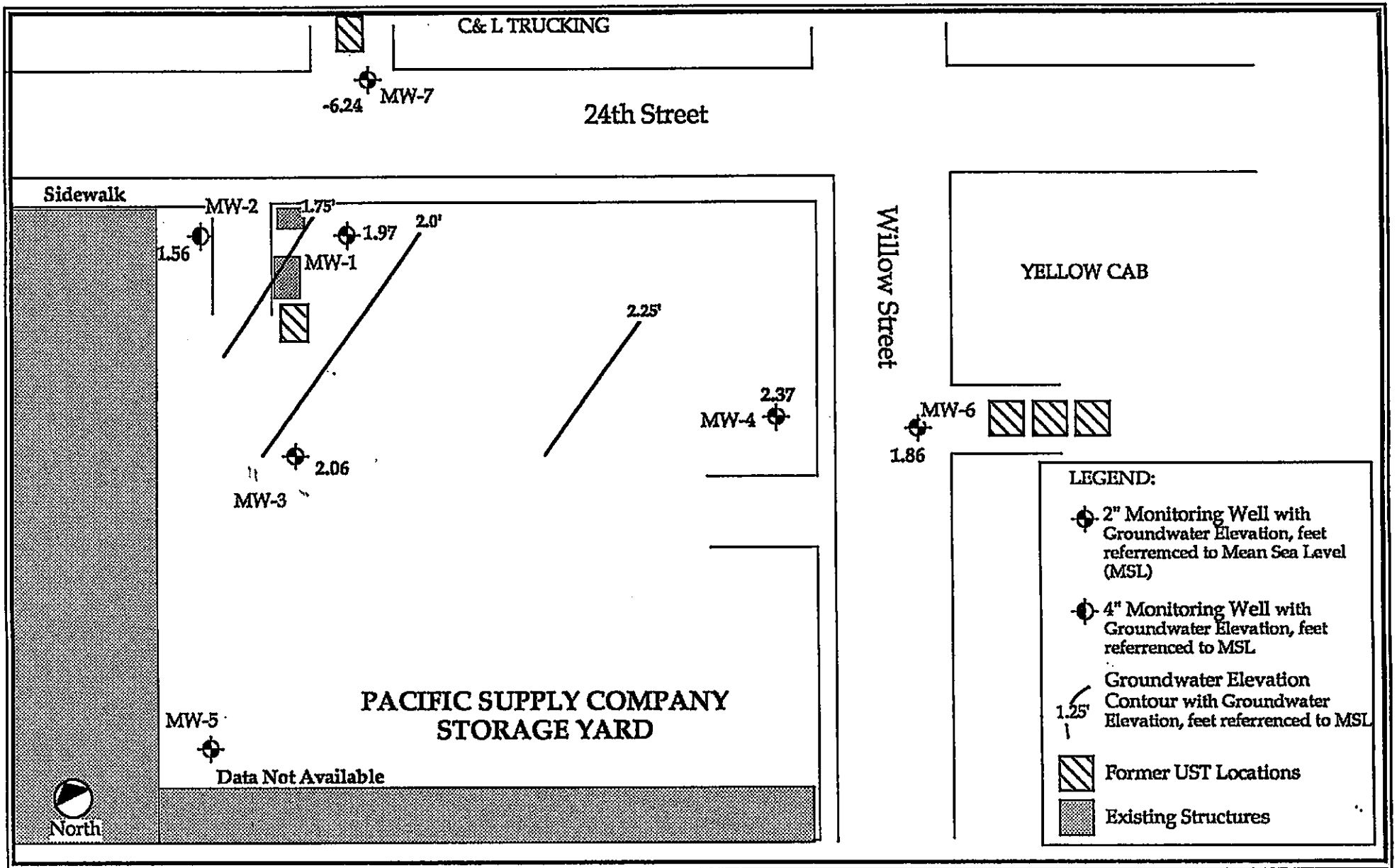
Well Identification	Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L
MW-7	12/29/89	ND	ND	ND	ND	ND	0.235 (1)
MW-7	3/9/93	ND	ND	ND	ND	ND	ND (1)
MW-7	7/21/93	ND	ND	ND	ND	ND	ND(1)
MW-7	11/4/93	ND	ND	ND	ND	ND	ND(1)
MW-7	2/1/94	ND	ND	ND	ND	ND	ND(1)
MW-7	6/2/94	ND	ND	ND	ND	ND	ND(1)
MW-7	9/1/94	ND	ND	ND	ND	ND	ND(1)
MW-7	12/13/94	ND	ND	ND	ND	ND	–

Notes:
(1) Organic Lead
(2) Total Lead
(3) Chromatographic peak array does not match gasoline standard
ND = not detected at laboratory reporting limit
µg/L = micrograms per liter
mg/L = milligrams per liter
– = not analyzed

TABLE 2
GROUNDWATER ELEVATION DATA
PACIFIC SUPPLY COMPANY

Well Identification	Date Measured	Elevation of Casing (ft, MSL)	Depth to Water (ft)	Groundwater Elevation (ft, MSL)	
MW-1	12/13/94	8.87	6.90	1.97	↑ by ~.8'
MW-2	12/13/94	8.14	6.58	1.56	↑ by ~.5'
MW-3	12/13/94	9.13	7.07	2.06	
MW-4	12/13/94	9.07	6.70	2.37	
MW-5	12/13/94	8.93	n/a	n/a	
MW-6	12/13/94	6.13	4.27	1.86	
MW-7	12/13/94	5.03	11.27	-6.24	↓ by ~1.5'

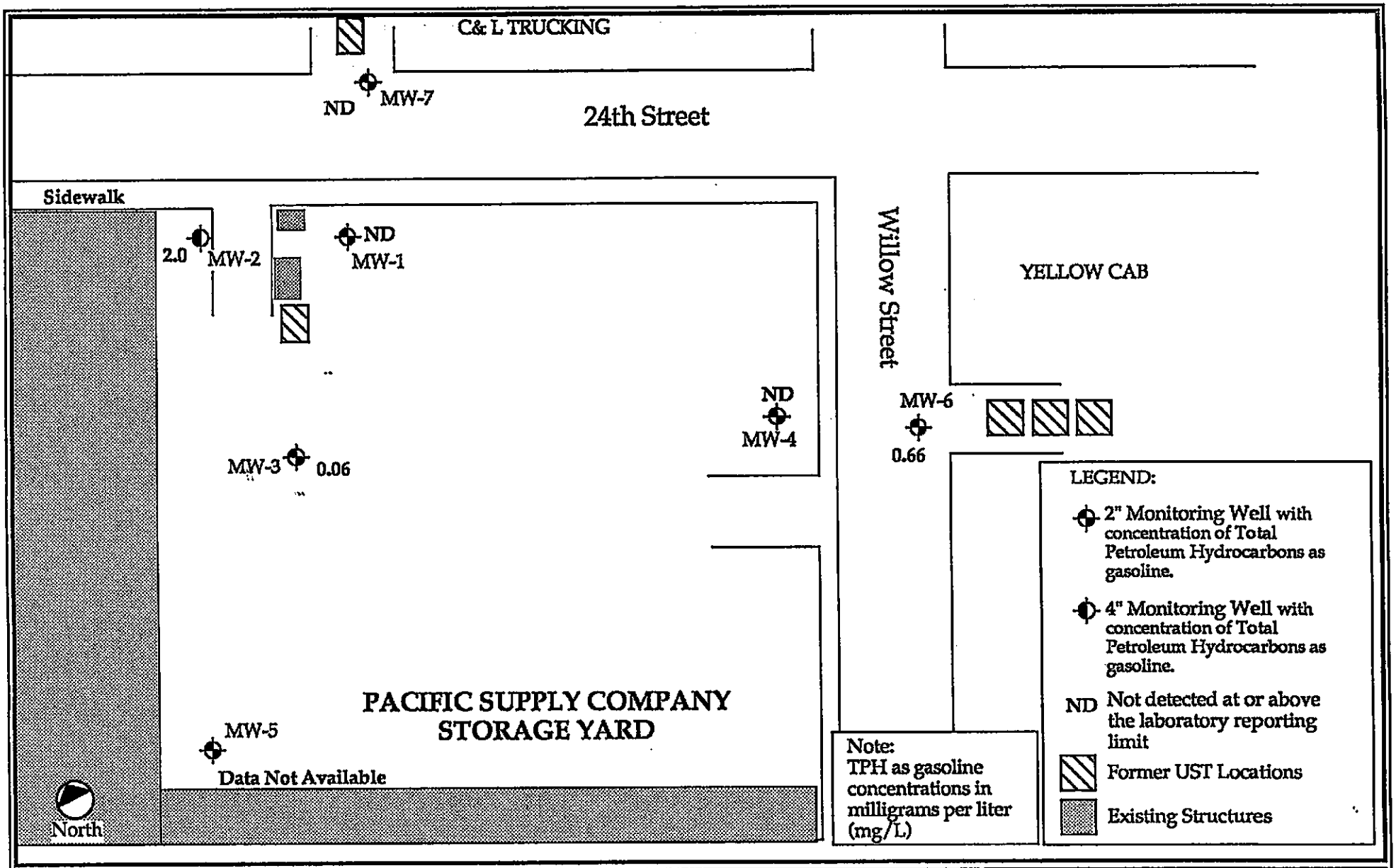
Notes:
Well MW-5 was inaccessable for sampling
MSL = referrenced to Mean Sea Level



PROJECT NUMBER: 29.7 PACIFIC SUPPLY COMPANY OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.7-01		
DRAWN BY:	JBB	1/15/95
APPROVED BY:	DMD	2/13/95
SCALE: 1 Inch = 50 Feet		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

Plate 1
Groundwater Elevations
December 13, 1994
Pacific Supply Company
Oakland, California



PROJECT NUMBER: 29.7 PACIFIC SUPPLY COMPANY OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.7-07		
DRAWN BY:	JBB	1/15/95
APPROVED BY:	DMD	2/6/95
SCALE: 1 Inch = 50 Feet		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

Plate 2
Total Petroleum Hydrocarbons as Gasoline
December 13, 1994
Pacific Supply Company
Oakland, California

APPENDIX A
Monitoring Well Sampling Protocol

Monitoring Well Sampling Protocol

Prior to purging of each monitoring well, the groundwater level is measured and a single bailer full of water is retrieved from the well to check for floating product. The monitoring well is then purged until a minimum of three casing volumes of water are removed, water is relatively clear of sediment, and pH, conductivity, and temperature measurements of the water stabilizes. If wells go dry during purging, the wells are allowed to recover to 80 percent of original water level prior to sampling.

A single groundwater sample is collected from each monitoring well following re-equilibration of each well after purging. Individual log sheets are maintained throughout the sampling operations. The following information is recorded:

- Sample number
- Date and time sampled and purged
- Sampling location
- Types of sampling equipment used
- Name of sampler(s)
- Volume of water purged.

The sample is collected in the following manner:

- A hand-operated, factory-sealed, disposable, polyethylene bailer with sampling port is used for collecting all water samples. A factory provided attachment designed for use with volatile organic compounds (VOCs) is attached to the sampling port when collecting samples to be analyzed for VOCs.

- The sample container(s) are obtained directly from the analytical laboratory. Sample bottles, bottle caps, and septa are protected from solvent contact, dust or other contamination between time of receipt by the field sampler and time of actual usage at the sampling site.

The sample container is labeled with a self-adhesive tag. Field personnel label the tag, using waterproof ink, with the following information:

- Project number
- Sample number
- Date and time sample is obtained
- Initials of sample collector(s).

Following collection, the sample is immediately stored on blue ice in an appropriate container. A Chain-of-Custody Record is completed with the following information:

- Date the sample was taken
- Sample number and the number of containers
- Analyses required
- Remarks including preservatives added and any special conditions.

The original copy of the Chain-of-Custody Record accompanies the sample containers to a California-certified laboratory. The duplicate copy is retained by the BAI representative who sampled the well.

Sampling equipment is cleaned both before and after their use at the sampling location. Thermometers, pH electrodes, and conductivity probes are also cleaned.

The following cleaning procedures are used:

- Scrub with a detergent-potable water solution or other solutions deemed appropriate using a hard bristle brush
- Rinse with potable water
- Double-rinse with organic-free or deionized water
- Package and seal equipment in plastic bags or other appropriate containers to prevent contact with solvents, dust, or other contaminants.

Cleaning solutions are added to the storage tank for processing on-site by the permitted groundwater treatment system prior to discharging to the sanitary sewer.

APPENDIX B
Analytical Laboratory Report

BACE Analytical
& Field Services, Inc.

January 5, 1995
Log No: 2119
Laboratory Certification Number: 1264

BACE Environmental
a division of
Brunsing Associates, Inc.
1735 E. Bayshore Road, Suite 1A
Redwood City, California 94063

ATTN: Mike Velzy

RE: Results of the analyses of groundwater samples obtained for project number 29.7 on December 13, 1994.

Dear Mr. Velzy,

This letter serves to confirm the analytical results previously communicated to you. Should any questions arise concerning procedure or results, please feel free to contact us.

Sincerely,

William G. Rotz
Director, Mobile Analytical Services

Tami Hucke Norgrove
Laboratory Manager

Client: BACE Environmental
Client Contact: Mike Velzy

Sample Date: 12/13/94
Analysis Date: 12/27/94

BAFS Log No: 2119

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l 2119-1 (MW-1)	2119-2 (MW-2)
Benzene	0.5		ND	200 A
Toluene	0.5		ND	10
Ethylbenzene	0.5		ND	2.7
Xylenes (total)	0.5		ND	11
Dilution Factor:	1			

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/l	Lab No: Descriptor:	Results - mg/l 2119-1 (MW-1)	2119-2 (MW-2)
TPH - gasoline	0.05		ND	2.0
Dilution Factor:	1			

NOTE: ND = not detected.
A = Dilution Factor : 10

Client: BACE Environmental
Client Contact: Mike Velzy

Sample Date: 12/13/94
Analysis Date: 12/27/94

BAFS Log No: 2119

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l 2119-3 (MW-3)	2119-4 (MW-4)
Benzene	0.5		1.4	ND
Toluene	0.5		ND	ND
Ethylbenzene	0.5		ND	ND
Xylenes (total)	0.5		ND	ND
Dilution Factor:	1			

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/l	Lab No: Descriptor:	Results - mg/l 2119-3 (MW-3)	2119-4 (MW-4)
TPH - gasoline	0.05		0.06	ND
Dilution Factor:	1			

NOTE: ND = not detected.

Client: BACE Environmental
Client Contact: Mike Velzy

Sample Date: 12/13/94
Analysis Date: 12/27/94

BAFS Log No: 2119

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l 2119-5 (MW-6)	2119-6 (MW-7)
Benzene	0.5		ND	ND
Toluene	0.5		ND	ND
Ethylbenzene	0.5		ND	ND
Xylenes (total)	0.5		ND	ND
Dilution Factor:	1			

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/l	Lab No: Descriptor:	Results - mg/l 2119-5 (MW-6)	2119-6 (MW-7)
TPH - gasoline	0.05		0.66 B	ND
Dilution Factor:	1			

NOTE: ND = not detected.
B = Chromatographic peak array does not match commercial gasoline standard.

SUMMARY OF LABORATORY RESULTS *

Pacific Supply - Project No. 29.7

WATER

Sampling Date	Lab Number	Descriptor	Benzene µg/l	Toluene µg/l	Ethylbenzene µg/l	Xylenes µg/l	TPH-gasoline mg/l
12/13/94	2119-1	MW-1	ND	ND	ND	ND	ND
12/13/94	2119-2	MW-2	200	10	2.7	11	2.0
12/13/94	2119-3	MW-3	1.4	ND	ND	ND	0.06
12/13/94	2119-4	MW-4	ND	ND	ND	ND	ND
12/13/94	2119-5	MW-6	ND	ND	ND	ND	0.66
12/13/94	2119-6	MW-7	ND	ND	ND	ND	ND

** See original laboratory report dated 1/5/95 for complete results.*

QUALITY CONTROL SUMMARY

Client: BACE Environmental
Client Contact: Mike Velzy
Sample Date: 12/13/94
Analysis Date: 12/27/94

BAFS Log No. : 2119

Matrix: Water

Parameter	% RECOVERY				
	CCV%*	Blank	Spike	Spike Dup	RPD
Gasoline	92	ND	110	108	1.8
Benzene	106	ND	96	92	4.3
Toluene	102	ND	98	93	5.2
Ethylbenzene	103	ND	100	93	7.3
Xylenes	97	ND	NS	NS	N/A

* Continuous Calibration Verification Standard
NS = Not Spiked.
N/A = Not Applicable.

PROJ. NO.	PROJECT NAME
297	PACIFIC SUPPLY
L.P. NO.	SAMPLERS: (Signature) Chris Scott

№ 1843

DATE	SAMPLE I.D.	TYPE	NO. OF CONTAINERS	ANALYSIS TPH GAS & BTEX	REMARKS
12-13-94	MW-1	WATER	3	X	2119-1
	MW-2		2	X	-2
	MW-3		2	X	-3
	MW-4		2	X	-4
	MW-6		3	X	-5
↓	MW-7	↓	3	X	-6

LABORATORY: BAES

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Remarks
Chris Scott	12/13/94 1900		RESULTS TO: MIKE VELZY
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) Tai Nuckles	

BRUNSING ASSOCIATES, INC.

Offices:

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707-838-3027

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