



BACE Environmental
A Division of
Brunsing Associates, Inc.

95 APR 24 PM 3:17

April 14, 1995

Project No. 29.7

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

3826

RE: Quarterly Groundwater Monitoring Report: March 1995
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-5 and off-site wells MW-6 and MW-7 (Plate 1). In addition, the damaged well monument for MW-5 was replaced.

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 ~~March 7, 1995~~ for wells MW-1 through MW-7. The groundwater depths and elevations relative to mean

Ms. Normita Callison
April 14, 1995
Page 2

sea level are summarized in Table 2. The groundwater flow direction appears to be northerly, generally towards well MW-1. 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-7 were sampled on March 7 and March 8, 1995 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;

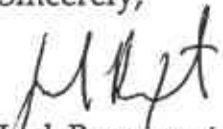
Based on a September 8, 1994 letter received from Jennifer Eberle of the Alameda County Health Care Services, sampling for organic lead has been discontinued.

Groundwater Analytical Results

Analytical laboratory results for the March 7 and March 8, 1995 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



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-1	3/7/95	0.06	3.8	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	-
MW-2	3/7/95	3.0	500	15	5.8	16	-



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-3	3/8/95	0.06	1.5	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)
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-4	3/8/95	0.09	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-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	-
MW-5	3/8/95	ND	ND	ND	ND	ND	-

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	-
MW-6	3/8/95	1.0 (3)	ND	ND	ND	ND	-



TABLE 1
ANALYTICAL DATA SUMMARY
PACIFIC SUPPLY COMPANY

Well Identification	Sampling Date	TPH (gasoline) mg/L	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	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	--
MW-7	3/7/95	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

$\mu\text{g/L}$ = micrograms per liter

mg/L = milligrams per liter

-- = not analyzed



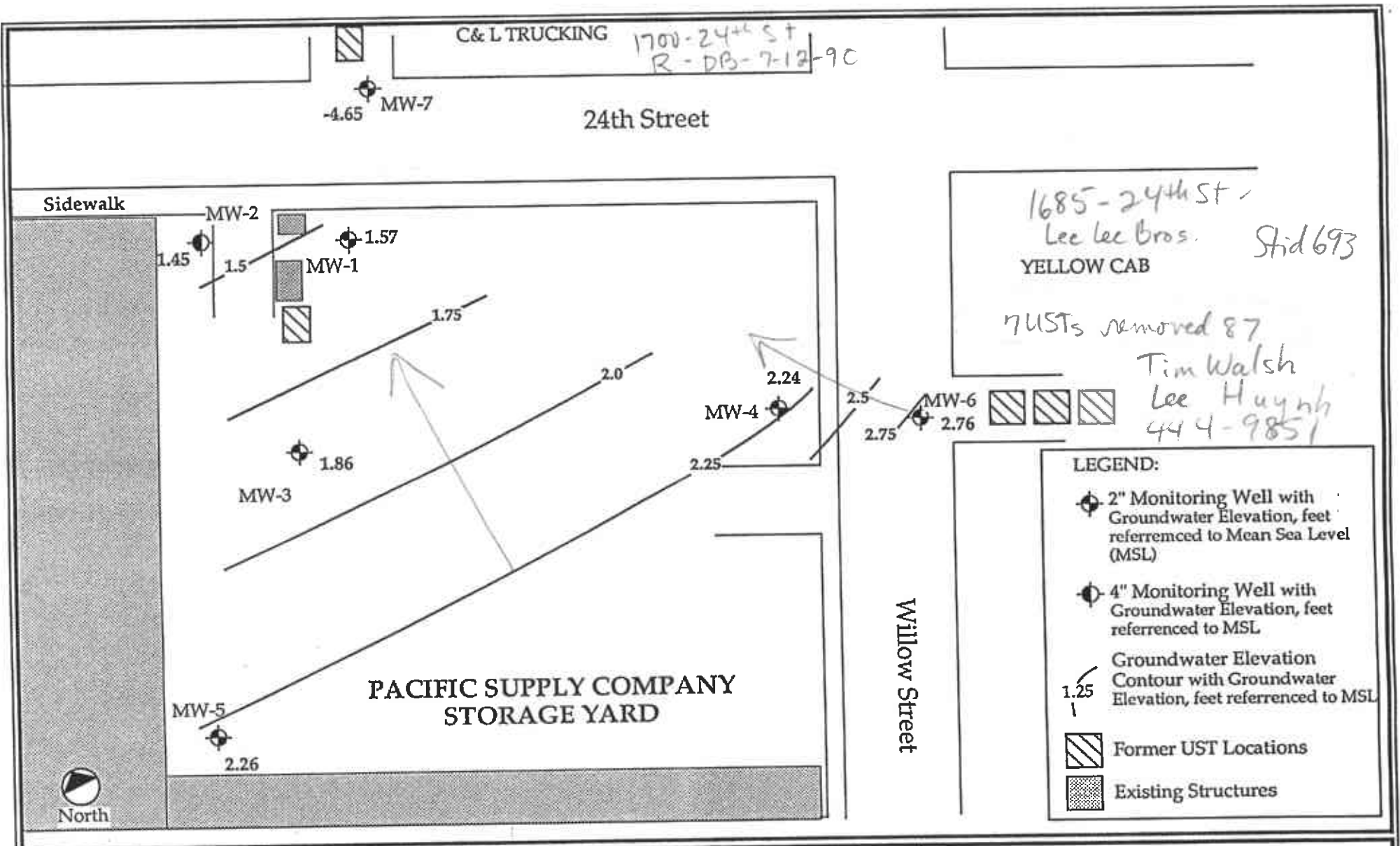
TABLE 2
GROUNDWATER ELEVATION DATA
PACIFIC SUPPLY COMPANY

Well Identification	Date Measured	Elevation of Casing (ft, MSL)	Depth to Water (ft)	Groundwater Elevation (ft, MSL)
MW-1	3/7/95	8.87	7.30	1.57
MW-2	3/7/95	8.14	6.69	1.45
MW-3	3/7/95	9.13	7.27	1.86
MW-4	3/7/95	9.07	6.83	2.24
MW-5	3/7/95	8.93	6.67	2.26
MW-6	3/7/95	6.13	3.37	2.76
MW-7	3/7/95	5.03	9.68	-4.65

same

MSL = referenced to Mean Sea Level





1685-24th St -
Lee Lee Bros. Stid 693
YELLOW CAB

7 USTs removed 87
Tim Walsh
Lee Huynh
444-9851

PROJECT NUMBER: 29.7
PACIFIC SUPPLY COMPANY
OAKLAND, CALIFORNIA

DRAWING NUMBER: 29.7-01

DRAWN BY: JBB 3/28/95

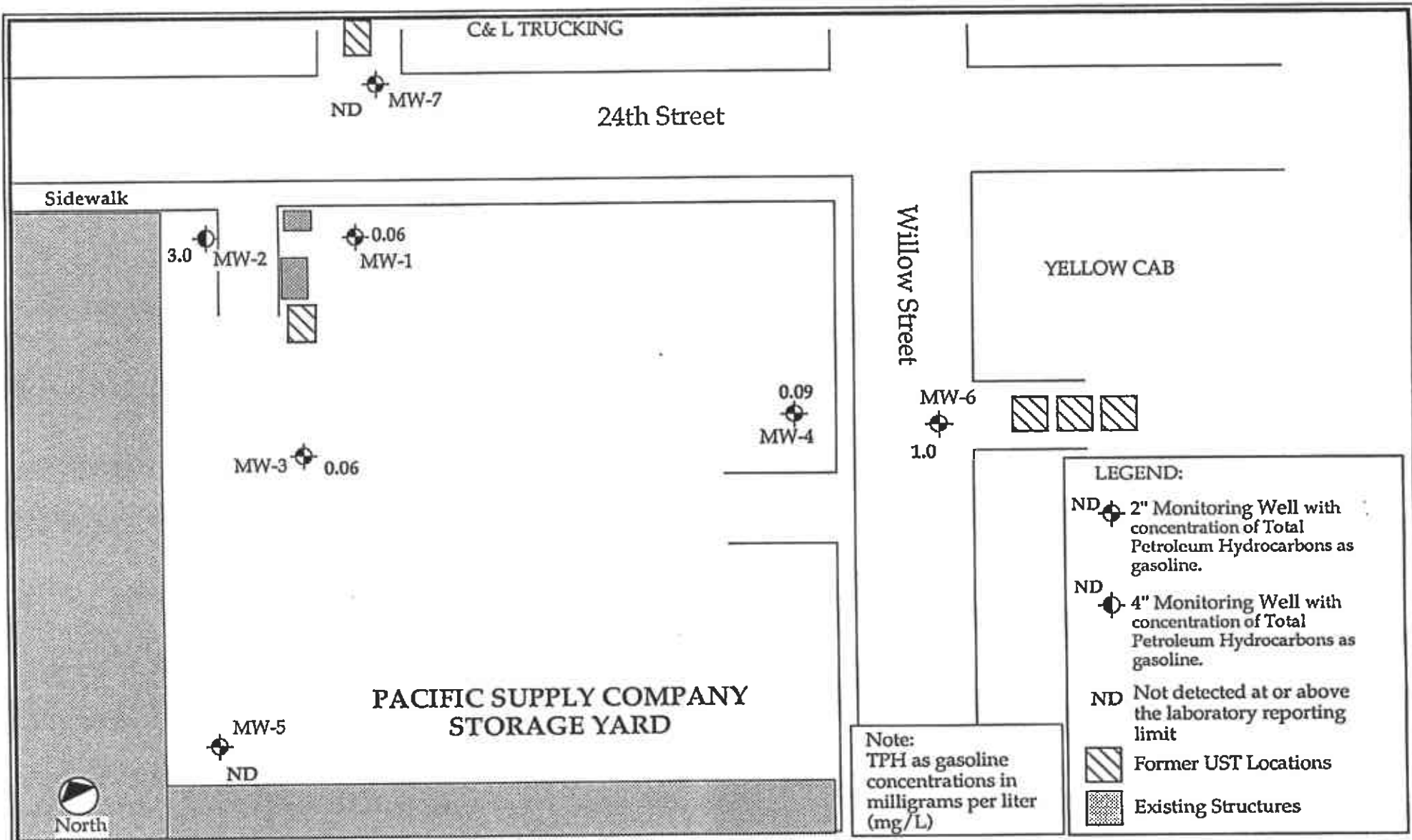
APPROVED BY: *DMD* 4/17/95

SCALE: 1 Inch = 50 Feet

BACE Environmental
A Division Of
Brunsing Associates, Inc.

Plate 1
Groundwater Elevations
March 7, 1995
Pacific Supply Company
Oakland, California

Campbell



PROJECT NUMBER: 29.7
 PACIFIC SUPPLY COMPANY
 OAKLAND, CALIFORNIA

DRAWING NUMBER: 29.7-07

DRAWN BY:	JBB	3/28/94
APPROVED BY:	<i>RMD</i>	<i>4/12/95</i>

SCALE: 1 Inch = 50 Feet

BACE Environmental
A Division Of
Brunsing Associates, Inc.

Plate 2
 Total Petroleum Hydrocarbons as Gasoline
 March 7 and 8, 1995
 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.

March 22, 1995

Log No: 2153

Laboratory Certification Number: 1264

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

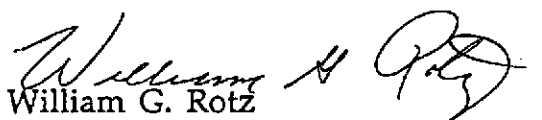
ATTN: Mike Velzy


RE: Results of the analyses of groundwater samples obtained for project number
29.7 on March 7 & 8, 1995.

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

Page: 2 of 5

Sample Date: 3/7/95 ✓
Analysis Date: 3/20/95

BAFS Log No: 2153

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit ug/l ✓	Lab No: Descriptor:	Results - µg/l	
			2153-1 (MW-1)	2153-2 (MW-2)
Benzene	0.5		3.8 ✓	500 A ✓
Toluene	0.5		ND	15
Ethylbenzene	0.5		ND	5.8
Xylenes (total)	0.5		ND	16
Dilution Factor:	1			

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/l	Lab No: Descriptor:	Results - mg/l	
			2153-1 (MW-1)	2153-2 (MW-2)
TPH - gasoline	0.05		0.06 ✓	3.0 ✓
Dilution Factor:	1			

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



Client: BACE Environmental
Client Contact: Mike Velzy

Page: 3 of 5

Sample Date: 3/8/95
Analysis Date: 3/20/95

BAFS Log No: 2153

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l	
			2153-3 (MW-3)	2153-4 (MW-4)
Benzene	0.5		1.5 ✓	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	
			2153-3 (MW-3)	2153-4 (MW-4)
TPH - gasoline	0.05		0.06 ✓	0.09 ✓
Dilution Factor:	1			

NOTE: ND = not detected.



Client: BACE Environmental
Client Contact: Mike Velzy

Page: 4 of 5

Sample Date: 3/8/95
Analysis Date: 3/20/95

BAFS Log No: 2153

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l	
			2153-5 (MW-5)	2153-6 (MW-6)
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	
			2153-5 (MW-5)	2153-6 (MW-6)
TPH - gasoline	0.05		ND ✓	1.0 B ✓

Dilution Factor: 1

NOTE: ND = not detected.

B = Chromatographic peak array does not match commercial gasoline standard.



Client: BACE Environmental
Client Contact: Mike Velzy

Page: 5 of 5

Sample Date: 3/7/95
Analysis Date: 3/20/95

BAFS Log No: 2153

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/l	Lab No: Descriptor:	Results - µg/l 2153-7 (MW-7)
Benzene	0.5		ND ✓
Toluene	0.5		ND
Ethylbenzene	0.5		ND
Xylenes (total)	0.5		ND
Dilution Factor:	1		

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/l	Lab No: Descriptor:	Results - mg/l 2153-7 (MW-7)
TPH - gasoline	0.05		ND ✓
Dilution Factor:	1		

NOTE: ND = not detected.



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
3/7/95	2153-1	MW-1	3.8	ND	ND	ND	0.06
3/7/95	2153-2	MW-2	500	15	5.8	16	3.0
3/8/95	2153-3	MW-3	1.5	ND	ND	ND	0.06
3/8/95	2153-4	MW-4	ND	ND	ND	ND	0.09
3/8/95	2153-5	MW-5	ND	ND	ND	ND	ND
3/8/95	2153-6	MW-6	ND	ND	ND	ND	1.0
3/7/95	2153-7	MW-7	ND	ND	ND	ND	ND

* See original laboratory report dated 3/22/95 for complete results.



QUALITY CONTROL SUMMARY

Client: BACE Environmental
Client Contact: Mike Velzy
Sample Date: 3/7 & 8/95
Analysis Date: 3/20/95

BAFS Log No. : 2153

Matrix: Water

Parameter	% RECOVERY				
	CCV%*	Blank	Spike	Spike Dup	RPD
Gasoline	101	ND	95	104	9.0
Benzene	94	ND	93	90	3.3
Toluene	90	ND	94	92	2.2
Ethylbenzene	94	ND	92	89	3.3
Xylenes	90	ND	101	96	5.1

* Continuous Calibration Verification Standard




PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS	ANALYSIS											REMARKS			
L.P. NO.		SAMPLERS: (Signature)			TPH, GAS, BTEX														
DATE	SAMPLE I.D.	TYPE																	
3-7-95	MW-1	WATER	2	X															2153-1
3-7-95	MW-2	WATER	2	X															-2
3-8-95	MW-3	WATER	2	X															-3
3-8-95	MW-4	WATER	2	X															-4
3-8-95	MW-5	WATER	2	X															-5
3-8-95	MW-6	WATER	2	X															-6
3-7-95	MW-7	WATER	2	X															-7

No 1881

LABORATORY: **BAFS**

Relinquished by: (Signature) <i>Chris Scott</i>	Date/Time 3/8/95 1500	Received by: (Signature) <i>[Signature]</i>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Remarks
RESULTS TO:
MIKE VELZY

 **BRUNSGING ASSOCIATES, INC.**

Offices:

PO Box 588 Windsor CA 95492 707-838-3027	1735 E. Bayshore Rd., 2A Redwood City CA 94063 415-364-9031	1515 Ninth Street Rock Springs WY 82901 307-362-9277
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