GROUNDWATER INVESTIGATION AND MONITORING REPORT

PACIFIC SUPPLY COMPANY
1735 24th Street
Oakland, California

December 14, 2000

Project No. 029.15

Brunsing Associates, Inc.

BACE Environmental
A Division of Brunsing Associates, Inc.

00 DEC 20 PM 3:38

TRANSMITTAL

To:
Mr. Larry Seto
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

3826

Subject:
Groundwater Investigation Report
Pacific Supply Company
1735 24th Street, Oakland, CA

Our Job Number: 029.15

Transmitted herewith are:
One Original: "Groundwater Investigation and Monitoring Report"

Additional Copies To:
Ms. Normita Callison, Pacific Coast Building Products

By: Carl Schwab

Date: December 14, 2000

P.O. Box 588, Windsor, CA 95492 Phone: (707) 838-3027 Fax: (707) 838-4420

GROUNDWATER INVESTIGATION AND MONITORING REPORT

Pacific Coast Building Products
1735 24th Street
Oakland, California

prepared for:

Ms. Normita Callison
Pacific Building Products
5550 Roseville Road
North Highlands, California 95660

prepared by:

BACE Environmental
a division of
Brunsing Associates, Inc.
P. O. Box 588
Windsor, California 95492
(707) 838-3027

Project No. 029.15
December 14, 2000

Author: Carl Schwab

Carl Schwab
Senior Geologist

Reviewer: Diana M Dickerson

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

REGISTERED GEOLOGIST
DIANA M. DICKERSON
NO. 6013
STATE OF CALIFORNIA

TABLE OF CONTENTS

LIST OF TABLES, PLATES AND APPENDICES

1.0 INTRODUCTION

This report presents the results of an additional groundwater investigation and semi-annual groundwater monitoring performed at Pacific Coast Building Products, 1735 24th Street, Oakland, California (Plate 1), by BACE Environmental (BACE), a division of Brunsing Associates, Inc. The scope of work for the site investigation was presented in BACE's March 6, 2000, workplan. The workplan was approved by Alameda County Environmental Health Services (ACEHS) in correspondence dated March 22, 2000. The purpose of this investigation was to evaluate the potential for off-site migration of low levels of gasoline constituent contamination associated with a former underground storage tank (UST) at the site, and to collect a groundwater sample for laboratory analysis from on-site monitoring well MW-2, in accordance with semi-annual monitoring requirements. The field work was performed on August 29, 2000.

2.0 SITE BACKGROUND

The site background is presented in Appendix A.

3.0 FIELD INVESTIGATION

The site investigation supervised by BACE included the drilling of three soil borings (B-10, B-11 and B-12, Plate 2) on August 29, 2000, using a Power Probe 9600 direct push drill rig from Gregg Drilling, a C-57 licensed drilling contractor. Prior to drilling a soil boring permit was obtained from the Alameda County Public Works Agency, and an encroachment permit was obtained from the City of Oakland to allow drilling in the street. Underground Service Alert (USA) was contacted to locate underground utilities in the drilling area. Because of the proximity of underground utility markings to the locations of borings B-11 and B-12, all borings were hand augered to a depth of 5 feet to insure no contact with underground utility lines would occur. The borings were then completed to a total depth of 15 feet using the drill rig. The surface elevation of 24th Street where the soil borings were completed is approximately 4 to 5 feet below the surface elevation of the Pacific Supply Company yard where the on-site monitoring wells are located and the UST was located.

3.1 Groundwater Sampling from Soil Borings

Temporary well casings were placed in the borings after drilling was terminated and groundwater samples for laboratory analysis were collected from the casings. Clean, factory-sealed polyethylene bailers were used to collect groundwater samples. No groundwater was purged prior to sampling because of the anticipated slow

groundwater recharge rate. Groundwater samples were transferred to laboratory-supplied containers and were sealed, labelled, and stored in a cooled ice chest until delivery to a California-certified laboratory for analysis. A chain-of-custody form was completed, and submitted to the laboratory with the samples.

No soil samples for laboratory analysis were collected from the borings, as the extent of soil contamination related to leakage from the former UST had been previously defined. Following the collection of the groundwater samples, the temporary well casings were removed, and the borings were abandoned by backfilling with neat cement grout and bentonite chips. The boreholes were topped with asphalt patch to restore the ground surface. The boring logs are included in Appendix C.

3.2 Monitoring Well Sampling

A groundwater sample was collected from monitoring well MW-2 on August 29, 2000, in accordance with the semi-annual groundwater monitoring schedule for the site. The sample was collected after purging the monitoring well of approximately three casing volumes of groundwater. The full groundwater sampling protocol is outlined in Appendix B. Groundwater elevation measurements were not taken in other on-site monitoring wells because material storage in the yard area made the well heads inaccessible. Prior groundwater monitoring completed at the site had established a consistent groundwater flow direction to the north.

3.3 Chemical Analyses

The three groundwater samples collected from the borings, and the sample collected from monitoring well MW-2, were submitted to BACE Analytical and Field Services (BAFS), for analysis of TPH as gasoline and BTEX by EPA Test Methods (EPA) 8015/8020, and to Sequoia Analytical for analysis of petroleum oxygenates and lead scavengers, by EPA 8260B. Copies of the analytical laboratory reports are included in Appendix B. The results of the chemical analyses of the soil boring groundwater samples and the current sample collected from well MW-2 are summarized in Table 1. Historic monitoring well analytical results are summarized in Table 2. The results of the current site work are discussed below.

4.0 RESULTS

4.1 Soil Stratigraphy

Soils encountered from near surface to a depth of approximately 4 to 5 feet below ground surface (bgs) consisted of thin layers of mixed soil types, which likely represent fill material. In borings B-11 and B-12, located on the north side of 24th Street, these shallow soils consisted primarily of relatively permeable silty sand and

sand interbedded with silty or sandy clay. Water was first encountered in these sandy soils at depths of 3 to 4 feet bgs. At a depth of approximately 4 to 5 feet bgs, a layer of mixed peat and clay was encountered. This unit appeared to be underlain by a soft, wet, silty clay which extended from approximately 5 feet bgs to the total depth of the borings at 15 feet. In boring B-11 from 5 to 15 feet bgs, and boring B-12 from 8 to 15 feet bgs, no soil was recovered during sampling. However, soft clay was observed on the drill rods when the sampling equipment was removed from the borings after each sample drive.

In boring B-10, completed on the south side of 24th Street, soils encountered to a depth of 5 feet consisted of a sandy clay underlain by a unit of soil mixed with concrete, rock, wood and miscellaneous debris. This was underlain by a soft, plastic clay which contained abundant roots and wood debris. Soils below approximately 6 feet bgs consisted of wet, soft, silty and sandy clays. Full recovery was obtained in the sample drives completed in boring B-10 from depths of 5 to 15 feet bgs, below the depth where hand augering was completed. Boring logs for the three borings completed as part of this site investigation are presented in Appendix C.

4.2 Chemical Results, Monitoring Well

Analysis of the groundwater sample collected from monitoring well MW-2 reported a TPH as gasoline concentration of 3.5 milligrams per liter (mg/l). Detectable concentrations of benzene, toluene, and xylenes were reported at 120 micrograms per liter (µg/l), 16 µg/l, and 28 µg/l, respectively. No detectable ethylbenzene was reported, at a reporting limit of 5.0 µg/l. Analysis for petroleum oxygenates and lead scavengers reported detectable concentrations of methyl tert- butyl ether (MTBE) and tertiary butyl alcohol (TBA) of 5.09 and 102 µg/l, respectively. Copies of the analytical laboratory reports for this investigation, which include the data for monitoring well MW-2, are presented in Appendix D.

Prior analytical results for well MW-2 had reported TPH as gasoline concentrations ranging from 1.3 to 11 mg/l, and benzene concentrations ranging from 20 to 760 µg/l. A complete summary of groundwater monitoring well analytical results for the site is presented in Table 2.

4.3 Chemical Results, Grab Groundwater

No detectable TPH as gasoline, BTEX, petroleum oxygenates or lead scavengers were reported to occur in the water samples collected from borings B-11 and B-12. Analytical reporting limits for petroleum oxygenates and lead scavengers were raised through dilution by factors of 5 in boring B-11 and 2.5 in boring B-12 due to interference from non-target compounds. The interference likely resulted from organic material in the peat observed in these two borings.

Analysis of the groundwater sample collected from boring B-10 reported a TPH as gasoline concentration of 0.060 mg/l. Detectable concentrations of benzene, toluene, and xylenes were reported at concentrations of 1.4 µg/l, 1.4 µg/l, and 1.0 µg/l, respectively. No detectable ethylbenzene was reported. Analysis for petroleum oxygenates and lead scavengers reported detectable MTBE, TBA, and tert-amyl methyl ether (TAME) at concentrations of 0.660, 58.3 and 4.03 µg/l, respectively. The results of the grab groundwater analyses are summarized in Table 1 and copies of the complete analytical laboratory reports are presented in Appendix D.

5.0 DISCUSSION AND CONCLUSIONS

The following discussion and conclusions are based on geologic, hydrologic, and analytical data collected during this and prior field investigations.

- Field observations of soil stratigraphy indicate that groundwater flow in the area of off-site borings B-10, B-11 and B-12 occurs primarily in the first encountered water in very shallow soils at depths of less than 5 feet. Soils encountered below this depth consisted of wet, soft, clay with a very low permeability.

- Results of chemical analyses indicate that the shallow groundwater contamination found in downgradient monitoring well MW-2 appears to extend off-site to the area of boring B-10, which is located on the south side of 24th Street.

- Analytical results indicate that between the locations of monitoring well MW-2 and boring B-10 (a distance of approximately 60 feet), the following percentage decreases in contaminant levels occur: TPH as gasoline 98.3% decrease (3.5 mg/l to 0.060 mg/l); benzene 98.9% decrease (120 µg/l to 1.4 µg/l); MTBE 87% decrease (5.09 µg/l to 0.660 µg/l); and TBA 42.8% decrease (102 µg/l to 58.3 µg/l). TAME was found in the groundwater sample collected from boring B-10 at a concentration of 4.03 µg/l, but was not reported to occur in the sample collected from monitoring well MW-2.

- Primary maximum contaminant levels (MCLs) for drinking water have been established by the Department of Health Services (DHS) for benzene and MTBE. The established MCL for benzene is 1.0 µg/l and the established MCL for MTBE is 13 µg/l. No primary MCL has been adopted for TBA, however, an action level (AL) of 12 µg/l has been established. An AL is the level of a contaminant in drinking water that is considered not to pose a significant health risk to people ingesting that water on a daily basis. If the 42.8% decrease in TBA concentration over a distance of 60 feet is used as a general

factor for decrease in concentration over distance, it is calculated that the TBA concentration would decrease to the AL at a distance less than 180 feet from the location of boring B-10. TAME is currently listed as an unregulated chemical requiring monitoring by the DHS.

6.0 RECOMMENDATIONS

Based on the site investigation results presented in this report, BACE recommends that the site be considered for closure. The low levels of contamination detected in groundwater collected from monitoring well MW-2 and boring B-10, and the limited potential for the use of groundwater in the area, indicate that beneficial uses of groundwater are likely not being impacted by residual contamination at the study site.

7.0 DISTRIBUTION

Copies of this document have been distributed to the following individuals and agencies:

Mr. Larry Seto — Original
Alameda County Health Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Ms. Normita Callison — 2 Copies
Pacific Coast Building Products
5550 Roseville Road
North Highlands, California 95660

TABLE 1: GROUNDWATER ANALYTICAL RESULTS, 8/29/00
Pacific Supply Company
1735 24th Street, Oakland, California

Sample ID	TPH as gasoline (mg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	TAME (µg/l)	TBA (µg/l)	Other Oxygenates & Scavengers (µg/l)
B-10W	**0.060**	**1.4**	**1.4**	ND	**1.0**	**0.660**	**4.03**	**58.3**	ND
B-11W	ND	ND	ND	ND	ND	<2.5	<10	<500	<10
B-12W	ND	ND	ND	ND	ND	<1.25	<5	<250	<5
MW-2	**3.5**	**120**	**16**	<5	**28**	**5.09**	ND	**102**	ND
Method Reporting Limit	0.05 mg/l	0.5 µg/l	0.5 µg/l	0.5 µg/l	0.5 µg/l	0.5 µg/l	2.0 µg/l	100 µg/l	2.00 µg/l

mg/l = milligrams per liter which is generally equivalent to parts per million (ppm).

µg/l = micrograms per liter which is generally equivalent to parts per billion (ppb).

ND = Not detected at the method reporting limit.

nr = Analysis not requested.

< = Not detected at the indicated detection limit.

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-1	10/14/88	7.99	0.88	1.1	1.1	ND	–	ND	–	–
MW-1	12/29/89	7.74	1.13	ND	ND	ND	ND	ND	ND (1)	–
MW-1	5/28/92	7.81	1.06	ND	ND	ND	ND	ND	0.003(2)	–
MW-1	9/3/92	7.90	0.97	ND	ND	ND	ND	ND	0.12 (2)	–
MW-1	11/24/92	7.90	0.97	ND	ND	ND	ND	ND	0.017 (2)	–
MW-1	3/9/93	7.38	1.49	ND	ND	ND	ND	ND	ND (1)	–
MW-1	7/21/93	7.68	1.19	ND	ND	ND	ND	ND	ND (1)	–
MW-1	11/3/93	7.83	1.04	ND	ND	ND	ND	ND	ND (1)	–
MW-1	2/1/94	7.30	1.57	ND	ND	ND	ND	ND	ND (1)	–
MW-1	6/2/94	7.43	1.44	ND	ND	ND	ND	ND	ND (1)	–
MW-1	9/1/94	7.70	1.17	ND	ND	ND	ND	ND	ND (1)	–
MW-1	12/13/94	6.90	1.97	ND	ND	ND	ND	ND	–	–
MW-1	3/7/95	7.30	1.57	0.06	3.8	ND	ND	ND	–	–
MW-1	6/9/95	7.87	1.00	0.09	12	0.8	0.5	1.3	–	–
MW-1	9/21/95	7.67	1.20	ND	4.1	ND	ND	ND	–	–
MW-1	12/18/95	7.15	1.72	ND	ND	ND	ND	ND	–	–
MW-1	2/29/96	6.74	2.13	0.09	1.4	0.5	ND	0.8	–	–
MW-1	7/15/96	7.76	1.11		–	–	–	–	–	–
MW-1	1/7/97	6.80	2.07	0.06	0.6	<0.5	<0.5	<0.5	–	–
MW-1	7/12/97	7.67	1.20	–	–	–	–	–	–	–
MW-1	1/26/98	6.93	1.94	<0.05	<0.5	<0.5	<0.5	1.1	–	–
MW-1	7/3/98	7.51	1.36	–	–	–	–	–	–	–
MW-1	1/13/99	7.63	1.24	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-1	9/27/99	7.77	1.10	–	–	–	–	–	–	–
MW-1	1/28/00	6.85	2.02	<0.05	<0.5	<0.5	<0.5	<0.5	–	<5.0

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-2	10/14/88	7.29	0.85	11	23	20	–	16	–	–
MW-2	12/29/89	6.87	1.27	4	200	6.7	ND	ND	0.22 (1)	–
MW-2	5/28/92	6.92	1.22	8.9	550	48	ND	13	ND (2)	–
MW-2	9/3/92	7.26	0.88	2.1	760	6.2	1.8	5.1	0.006 (2)	–
MW-2	11/24/92	7.28	0.86	4.2	370	15	3.4	9.5	ND (2)	–
MW-2	3/9/93	6.73	1.41	4.3	280	14	3.7	7.1	ND (1)	–
MW-2	7/21/93	7.02	1.12	3.4	250	9.6	2.5	11	ND(1)	–
MW-2	11/4/93	7.22	0.92	2.5	230	7.8	2.1	9.9	ND(1)	–
MW-2	2/1/94	6.93	1.21	3.4	240	17	ND	15	ND(1)	–
MW-2	6/2/94	6.86	1.28	3.0	150	9.8	3.0	10	ND(1)	–
MW-2	9/1/94	7.10	1.04	2.1	120	9.8	2.0	9.6	ND(1)	–
MW-2	12/13/94	6.58	1.56	2.0	200	10	2.7	11	–	–
MW-2	3/7/95	6.69	1.45	3.0	500	15	5.8	16	–	–
MW-2	6/9/95	7.00	1.14	2.1	300	14	5.8	13	–	–
MW-2	9/21/95	6.91	1.23	1.6	120	9.6	ND	15	–	–
MW-2	12/18/95	6.73	1.41	2.8	120	16	5.2	19	–	–
MW-2	2/29/96	6.36	1.78	1.7	170	15	2.9	17	–	–
MW-2	7/15/96	7.11	1.03	2.8	160	22	3.5	17	–	–
MW-2	1/7/97	6.40	1.74	3.0	350	25	8.1	24	–	–
MW-2	7/12/97	6.98	1.16	2.1	55	11	<2.5	18	–	–
MW-2	1/26/98	6.45	1.69	1.8	310	29	5.0	15	–	–
MW-2	7/3/98	6.91	1.23	1.9	85	9.3	1.8	17	–	–
MW-2	1/13/99	7.07	1.07	2.1	48	33	2.0	16	–	–
MW-2	9/27/99	7.22	0.92	1.5	20	6.8	2.6	11	–	–
MW-2	1/28/00	6.61	1.53	1.3	22	6.4	1.5	11	–	<5.0
MW-2	8/29/00	7.14	1.00	3.5	120	16	<5	28	–	5.09*

** Tertiary butyl alcohol also detected at a concentration of 102 µg/l*

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-3	10/14/88	8.25	0.88	3.4	ND	ND	–	2.8	–	–
MW-3	12/29/89	7.79	1.34	ND	ND	ND	ND	ND	0.205 (1)	–
MW-3	5/28/92	7.83	1.30	ND	0.8	0.5	ND	ND	0.016 (2)	–
MW-3	9/3/92	8.22	0.91	ND	ND	ND	ND	ND	0.033 (2)	–
MW-3	11/24/92	8.29	0.84	ND	ND	ND	ND	ND	0.011 (2)	–
MW-3	3/9/93	7.30	1.83	0.1	1.8	ND	ND	ND	ND(1)	–
MW-3	7/21/93	7.87	1.26	ND	ND	ND	ND	ND	ND(1)	–
MW-3	11/4/93	8.23	0.90	0.07	0.6	0.5	ND	ND	ND(1)	–
MW-3	2/1/94	7.56	1.57	ND	ND	ND	ND	ND	ND(1)	–
MW-3	6/2/94	7.46	1.67	0.06	ND	ND	ND	ND	ND(1)	–
MW-3	9/1/94	7.83	1.30	0.07	1.7	0.9	ND	ND	ND(1)	–
MW-3	12/13/94	7.07	2.06	0.06	1.4	ND	ND	ND	–	–
MW-3	3/8/95	7.27	1.86	0.06	1.5	ND	ND	ND	–	–
MW-3	6/9/95	7.79	1.34	0.10	5.7	ND	ND	ND	–	–
MW-3	9/21/95	7.87	1.26	ND	1.5	ND	ND	ND	–	–
MW-3	12/18/95	7.30	1.83	ND	1.3	ND	ND	ND	–	–
MW-3	2/29/96	6.84	2.29	ND	2.1	0.6	ND	0.7	–	–
MW-3	7/15/96	7.79	1.34	–	–	–	–	–	–	–
MW-3	1/7/97	6.62	2.51	0.05	1.0	<0.5	<0.5	<0.5	–	–
MW-3	7/12/97	7.83	1.30	–	–	–	–	–	–	–
MW-3	1/26/98	6.60	2.53	<0.05	0.8	<0.5	<0.5	<0.5	–	–
MW-3	7/3/98	7.48	1.65	–	–	–	–	–	–	–
MW-3	1/13/99	7.63	1.50	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-3	9/27/99	7.94	1.19	–	–	–	–	–	–	–
MW-3	1/28/00	7.12	2.01	<0.05	<0.5	<0.5	<0.5	<0.5	–	<5.0

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-4	10/14/88	8.33	0.74	4.6	1.2	ND	–	2.2	–	–
MW-4	12/29/89	8.08	0.99	0.5	0.7	ND	ND	ND	ND (1)	–
MW-4	5/28/92	8.19	0.88	0.27	8.8	1	ND	3.2	0.030 (2)	–
MW-4	9/3/92	8.37	0.70	0.20	4.5	4.4	ND	1.9	0.022 (2)	–
MW-4	11/24/92	8.28	0.79	0.14	3.2	3.2	ND	1.0	0.005 (2)	–
MW-4	3/9/93	7.98	1.09	0.47	10	ND	ND	2.5	ND (1)	–
MW-4	7/21/93	8.17	0.90	0.28	4.4	5.9	ND	ND	ND(1)	–
MW-4	11/4/93	8.14	0.93	0.08	1.3	1.6	ND	ND	ND(1)	–
MW-4	2/1/94	7.79	1.28	0.08	ND	ND	ND	ND	ND(1)	–
MW-4	6/2/94	7.53	1.54	0.30	3.1	2.9	ND	0.8	ND(1)	–
MW-4	9/1/94	7.69	1.38	0.12	1.6	ND	ND	ND	ND(1)	–
MW-4	12/13/94	6.70	2.37	ND	ND	ND	ND	ND	–	–
MW-4	3/8/95	6.83	2.24	0.09	ND	ND	ND	ND	–	–
MW-4	6/9/95	7.66	1.41	0.19	ND	ND	ND	ND	–	–
MW-4	9/21/95	7.93	1.14	0.09	ND	ND	ND	ND	–	–
MW-4	12/18/95	6.98	2.09	–	–	–	–	–	–	–
MW-4	2/29/96	6.54	2.53	0.14	1.6	1.0	ND	0.6	–	–
MW-4	7/15/96	7.74	1.33	–	–	–	–	–	–	–
MW-4	1/7/97	6.46	2.61	0.09	1.0	0.5	<0.5	<0.5	–	–
MW-4	7/12/97	7.82	1.25	–	–	–	–	–	–	–
MW-4	1/26/98	6.67	2.40	0.09	1.1	0.8	<0.5	<0.5	–	–
MW-4	7/3/98	7.45	1.62	–	–	–	–	–	–	–
MW-4	1/13/99	7.51	1.56	0.12	1.1	0.62	<0.5	0.57	–	–
MW-4	9/27/99	7.88	1.19	–	–	–	–	–	–	–
MW-4	1/28/00	6.73	2.34	0.072	<0.5	<0.5	<0.5	<0.5	–	<5.0

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-5	10/14/88	8.04	0.89	3.2	ND	ND	–	ND	–	–
MW-5	12/29/89	7.40	1.53	ND	ND	ND	ND	ND	ND (1)	–
MW-5	5/28/92	7.53	1.40	ND	ND	ND	ND	ND	0.008 (2)	–
MW-5	9/3/92	8.02	0.91	ND	ND	ND	ND	ND	0.034 (2)	–
MW-5	11/24/92	7.75	1.18	ND	ND	ND	ND	ND	0.011 (2)	–
MW-5	3/9/93	6.91	2.02	ND	ND	ND	ND	ND	ND (1)	–
MW-5	7/21/93	7.57	1.36	ND	ND	ND	ND	ND	ND(1)	–
MW-5	11/4/93	7.77	1.16	ND	ND	ND	ND	ND	ND(1)	–
MW-5	2/1/94	7.05	1.88	ND	ND	ND	ND	ND	ND(1)	–
MW-5	6/2/94	7.18	1.75	ND	ND	ND	ND	ND	ND(1)	–
MW-5	9/1/94	7.53	1.40	ND	ND	ND	ND	ND	–	–
MW-5	3/8/95	6.67	2.26	ND	ND	ND	ND	ND	–	–
MW-5	6/9/95	7.33	1.60	ND	ND	ND	ND	ND	–	–
MW-5	9/21/95	7.67	1.26	ND	ND	ND	ND	ND	–	–
MW-5	12/18/95	6.62	2.31	–	–	–	–	–	–	–
MW-5	2/29/96	6.16	2.77	ND	ND	ND	ND	ND	–	–
MW-5	7/15/96	7.47	1.46	–	–	–	–	–	–	–
MW-5	1/7/97	6.11	2.82	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-5	7/12/97	7.61	1.32	–	–	–	–	–	–	–
MW-5	1/26/98	6.17	2.76	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-5	7/3/98	7.23	1.70	–	–	–	–	–	–	–
MW-5	1/13/99	7.27	1.66	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-5	9/27/99	7.76	1.17	–	–	–	–	–	–	–
MW-5	1/28/00	6.43	2.50	<0.05	<0.5	<0.5	<0.5	<0.5	–	<5.0

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

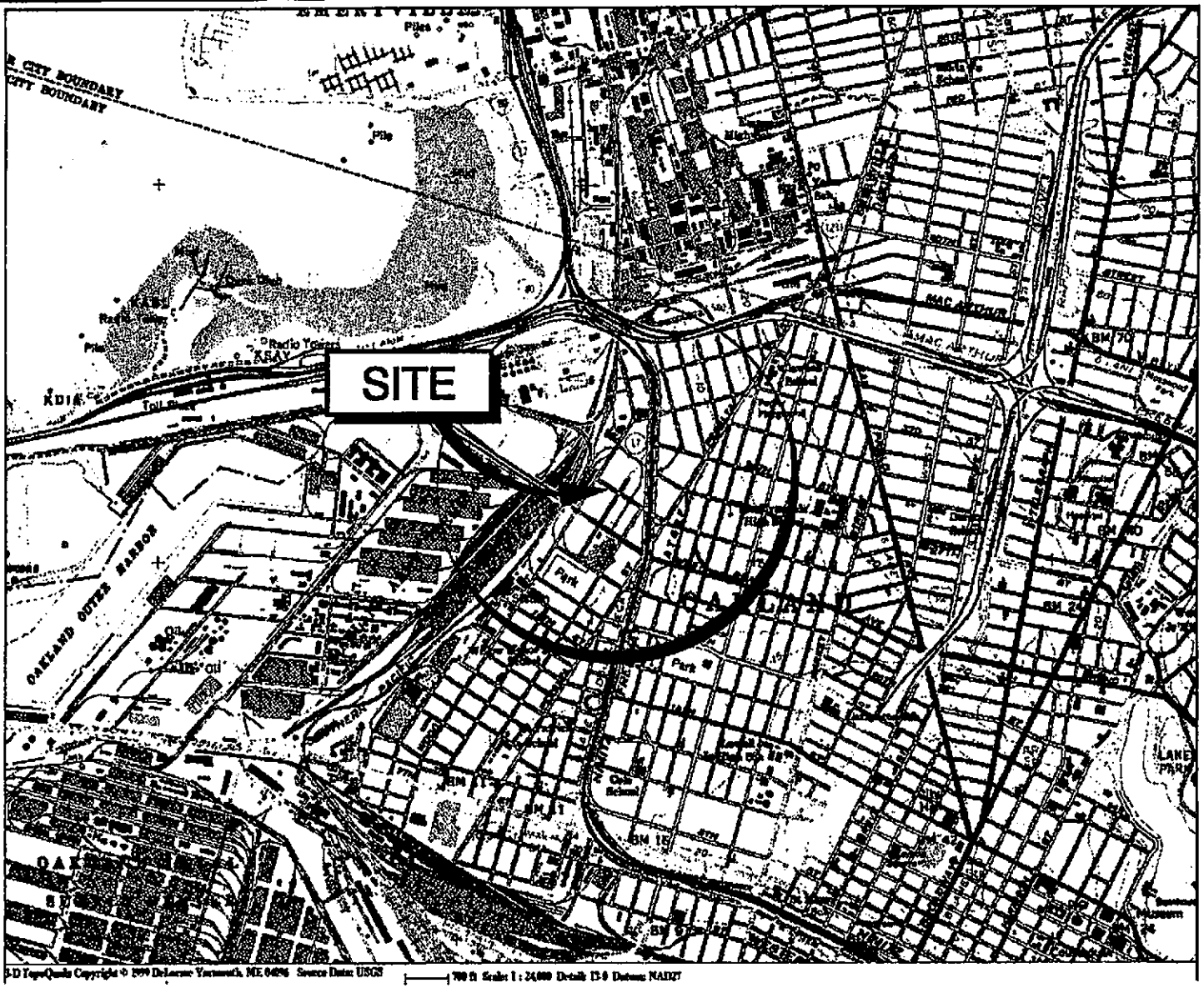
Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-6	12/29/89	5.02	1.11	1.1	5.4	4.5	ND	ND	ND (1)	–
MW-6	3/9/93	5.10	1.03	2.3	2.3	2.8	ND	3.1	ND (1)	–
MW-6	7/21/93	5.23	0.90	0.59	ND	7.6	ND	ND	ND(1)	–
MW-6	11/4/93	5.25	0.88	1.5	ND	1.2	ND	0.7	ND(1)	–
MW-6	2/1/94	5.05	1.08	1.9	2.5	3.9	1.6	1.1	ND(1)	–
MW-6	6/2/94	4.49	1.64	1.3	ND	1	ND	ND	ND(1)	–
MW-6	9/1/94	4.53	1.60	2.2	ND	1.7	ND	ND	ND(1)	–
MW-6	12/13/94	4.27	1.86	0.66 (3)	ND	ND	ND	ND	–	–
MW-6	3/8/95	3.37	2.76	1.0 (3)	ND	ND	ND	ND	–	–
MW-6	6/9/95	4.40	1.73	1.5	ND	3.3	ND	ND	–	–
MW-6	9/21/95	4.69	1.44	0.28	ND	ND	ND	ND	–	–
MW-6	12/18/95	4.42	1.71	–	–	–	–	–	–	–

Note: Based on the February 6, 1996 letter from Jennifer Eberle, monitoring of well MW-6 is no longer required.

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA
Pacific Supply Company, 1735 24th Street, Oakland, California

Well Name	Sampling Date	Depth to Groundwater (feet)	Groundwater Elevation (feet, MSL)	TPH as gasoline mg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	Lead mg/L	MTBE µg/L
MW-7	12/29/89	8.35	-3.32	ND	ND	ND	ND	ND	0.235 (1)	–
MW-7	3/9/93	13.60	-8.57	ND	ND	ND	ND	ND	ND (1)	–
MW-7	7/21/93	12.59	-7.56	ND	ND	ND	ND	ND	ND(1)	–
MW-7	11/4/93	9.84	-4.81	ND	ND	ND	ND	ND	ND(1)	–
MW-7	2/1/94	10.38	-5.35	ND	ND	ND	ND	ND	ND(1)	–
MW-7	6/2/94	10.10	-5.07	ND	ND	ND	ND	ND	ND(1)	–
MW-7	9/1/94	9.63	-4.60	ND	ND	ND	ND	ND	ND(1)	–
MW-7	12/13/94	11.27	-6.24	ND	ND	ND	ND	ND	–	–
MW-7	3/7/95	9.68	-4.65	ND	ND	ND	ND	ND	–	–
MW-7	6/9/95	9.37	-4.34	ND	ND	ND	ND	ND	–	–
MW-7	9/21/95	9.43	-4.40	ND	ND	ND	ND	ND	–	–
MW-7	12/18/95	13.28	-8.25	–	–	–	–	–	–	–
MW-7	2/29/96	11.70	-6.67	ND	ND	ND	ND	ND	–	–
MW-7	7/15/96	11.12	-6.09	–	–	–	–	–	–	–
MW-7	1/7/97	14.35	-9.32	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-7	7/12/97	15.12	-10.09	–	–	–	–	–	–	–
MW-7	1/26/98	15.28	-10.25	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-7	7/3/98	14.10	-9.07	–	–	–	–	–	–	–
MW-7	1/13/99	14.55	-9.52	<0.05	<0.5	<0.5	<0.5	<0.5	–	–
MW-7	9/27/99	14.03	-9.00	–	–	–	–	–	–	–
MW-7	1/28/00	10.91	-5.88	<0.05	<0.5	<0.5	<0.5	<0.5	–	<5.0

Notes:
MTBE = methyl tertiary butyl ether. TPH = total petroleum hydrocarbons.
(1)=Organic Lead, (2)=Total Lead, and (3)=chromatographic peak array does not match gasoline standard.
ND = not detected at laboratory reporting limit, <= less than given laboratory reporting limit.
µg/L = micrograms per liter. mg/l = milligrams per liter. – = not analyzed.
MSL = mean seal level
Groundwater elevations based on the following well casing elevations in feet above MSL:
MW-1 (8.87'), MW-2 (8.14'), MW-3 (9.13'), MW-4 (9.07'), MW-5 (8.93'), MW-6 (6.13') and MW-7 (5.03').



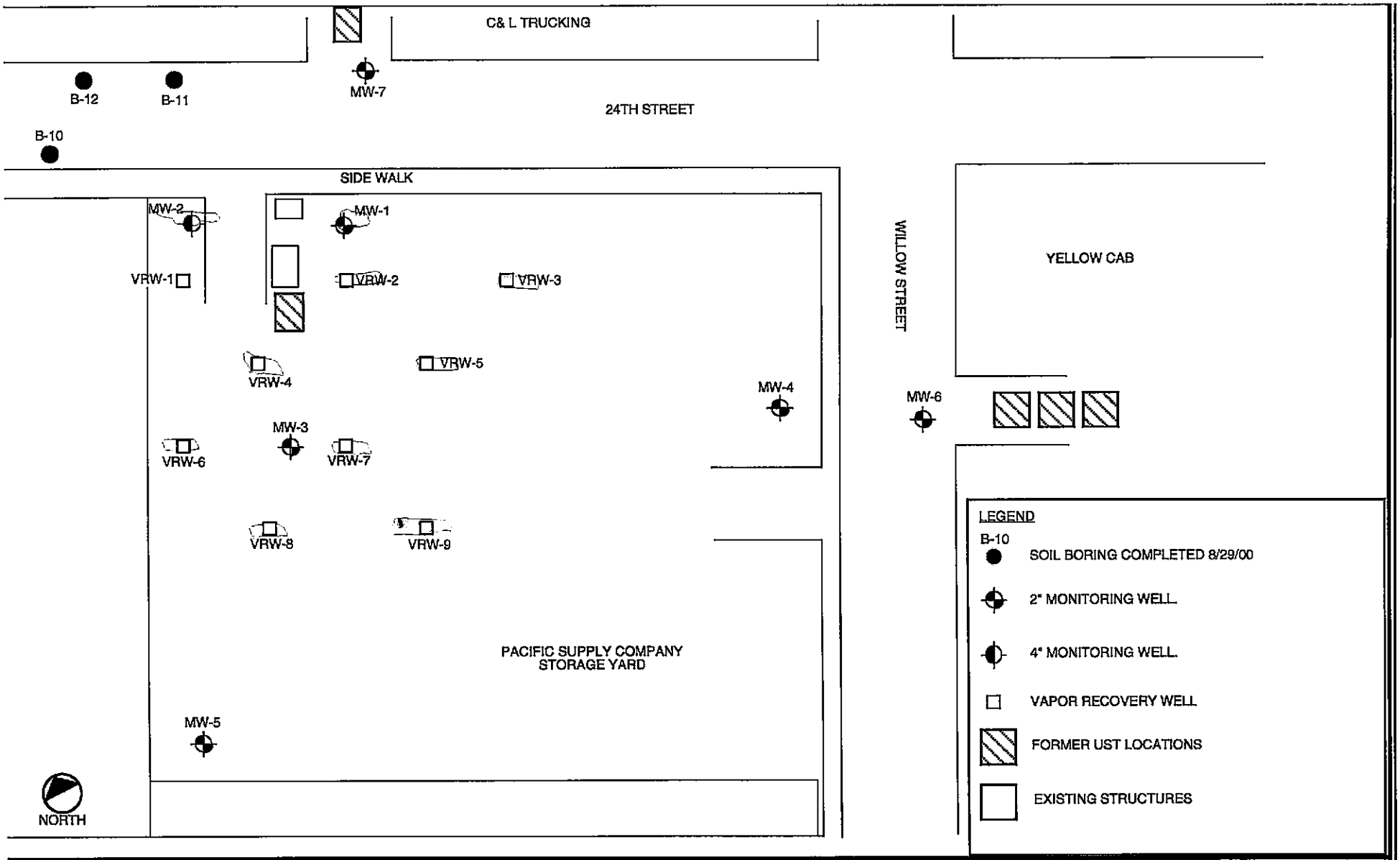
PROJECT NUMBER: 29.13 PACIFIC SUPPLY COMPANY OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.13-01		
DRAWN BY:	TFA	2/1/2000
APPROVED BY:	DMD	
SCALE:		

BACE Environmental

A Division of

Brunsing Associates, Inc.

PLATE 1
VICINITY MAP
PACIFIC SUPPLY COMPANY
1735 24TH STREET
OAKLAND, CALIFORNIA



PROJECT NUMBER: 29.15 PACIFIC SUPPLY COMPANY OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.15-01		
DRAWN BY:	CES	12/4/00
APPROVED BY:	DMD	
SCALE: 1 inch = 50 Feet		

BACE Environmental

A Division of

Brunsing Associates, Inc.

PLATE 2
SITE PLAN
PACIFIC SUPPLY COMPANY
1735 24TH STREET
OAKLAND, CALIFORNIA

APPENDIX A
Site Background

Site History and 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.

Vapor recovery wells VRW-1 through VRW-9 were constructed in August 1993 as part of a vapor recovery system. Installation of these wells were documented in a February 7, 1994 report. A vapor extraction system was installed in the Fall of 1993 and began operation on December 26, 1993. This system consisted of an internal combustion engine with a spray aeration tank for treatment of groundwater and activated carbon treatment of groundwater prior to discharge. The internal combustion unit and spray aeration unit was manufactured by Remediation Service International (RSI), under the trade name Spray Aeration Vapor Extraction (SAVE) system.

On June 28, 1996, the treatment system was shut down with the concurrence of Pacific Supply Company. Prior to shut down, the system had destroyed an estimated 6,550 pounds of petroleum hydrocarbons since start of operations on December 26, 1993. After shut down, the water in the water tank was treated and discharged to the sanitary sewer under the existing permit and the inside of the tank was cleaned on July 15, 1996.

The permit with the Bay Area Air Quality Management District (BAAQMD) expired on September 1, 1996, and was not renewed. The water discharge permit was discontinued on July 31, 1996. The total volume of water discharged to the sanitary sewer was 151,089 gallons. In December 1996, the shut down and decommissioning of the system was authorized by Jennifer Eberle of the Alameda County Department of Health Services. Decommissioning of the system hardware is complete.

APPENDIX B
Groundwater Sampling Protocol and Field Notes

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.

- 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

UST Fund Site: ☑ Yes ☐ No

Field Report

Sheet 1 of 2

Job No.: 029 Project: Pacific Supply

Init.: CES Subject: Borings w/ Water Sampling

Date: 8/29/00 Project Phase No.:

Vehicle Used (if *Personal*, see ✈ Reverse):

Total Time:

End. Mileage:

- Beg. Mileage:

Tot. Mileage:

Activities by Quarter Hour:									
1101	Staff Briefing	hrs	2225	Field Equipment Decon.	hrs	2275	Soil Stockpile Sampling	hrs
1203	Prep Equip/Supplies	hrs	2231	**Groundwater Elev. (DTW)**	hrs	2281	Treatment Sys. Monitoring	hrs
1205	Prefield Planning	hrs	2234	Collect Air Samples	hrs	2284	Treatment Sys. Sampling	hrs
2105	**Equip Load/Unload**	hrs	**2235**	**Groundwater Sampling**	hrs			hrs
2107	Mob/Demobilization	hrs	2236	Soil Sampling	hrs			hrs
2201	**Travel**	hrs	2241	Bail Product	hrs			hrs
2207	**Prepare Field Notes**	hrs	2247	Well Development	hrs			hrs
			2271	Log & Sample Borings	hrs			hrs

Description of Work and Conversation Record:

6:30 – 8:20 Leave office and travel to Pacific Supply.

8:20 – 8:35 Check in with Teresa Schmieder. Put cones out to try
– to keep drilling area free of parked cars. One truck
– is in the way (Pacific Supply driver who will return).
– Gas line marked as going right through drilling
– locations on the north side of the street.

8:35 – 8:50 Look over Pac Supply yard for well locations. Can't find
– wells MW-1, 3, 4. Find MW-2 in planter and uncover it.

8:50 Paul from Creag arrives on site. Look at utilities on
– north side of road. Will go in towards sidewalk with
– holes. Move into location over B-12.

9:15 – 9:45 Start hand augering B-12 appx 2' from marked location.
– Hand auger to appx. 5'. No sample recovery in 8-12'
– and 12'-15' drives, soft oozing Bay Mud. Hole initially
– open to 9' but closes up when I try to get a water
– sample.

10:05 – 10:20 Insert casing in B-12 and collect water sample. Extreme
– amount of sediment.

10:20 – 11:20 Set up & complete B-11. No soil recovery below 5' after
– hand augering because of water & soft soil.

11:20 – 12:30 Set up & complete B-10. Full recovery & much less water.
– Water comes in slowly. Clean up & driller leaves site.

12:30 – 14:00 Set up to sample MW-2. Purge 24 gallons and sample.

14:00 – 14:30 Close up well. Pack up truck and leave site.

14:30 – 15:45 Stop to look at other job site in Emeryville.

15:45 – 17:15 Drive to Petaluma & drop MTBE samples @ Sequoia.
– Killer Traffic.

17:15 – 18:00 Return to Office.
– Complete field notes, sample
– submittal & demob.
–
–

Brunsing Associates, Inc.

Well Sampling

Sheet 2 of 2

Project: Pacific Supply — Job No.: 029

Well Number: MW-2 — Precip. in last 5 days: Very Light — Wind: None — Date: 8/29/00

Starting Time: 12: — Finishing Time: _____ — Initials: CES

Volume Of Water To Be Removed Before Sampling:

[(Well Depth: 19.15') - (Water Level: 7.14] x (12 ft. x 2)

(2" Well Dia. --> Conv. Factor: 0.50*) = _____ gal

(4" Well Dia. --> Conv. Factor: 2.00*) = 24 gal

Therefore, total purge volume equals: 24 gallons

*Conv. factor converts equation to three well volumes for purging

Field Measurements/ Water Conditions:

Time	Total Gallons Removed	pH	Conductivity	Temp.	Observations
12:50	5.0	9.47	79m/s	69.7°	Light Brown / Slight Weathered Hydrocarbon odor
13:04	10.0	9.45	79m/s	69.3°	As above
13:19	15.0	9.43	80m/s	69.3°	As above
13:35	20.0	9.45	79m/s	69.2°	Slightly Turbid / Odor
13:48	25.0				

Sampling:

Sample Analysis: TPH Gas, BTEX

Sample Time: 14:00 — Did Well Go Dry?: No

Water Levels:

Time	DTW

Notes:

Brunsing Associates, Inc.

APPENDIX C
Boring Logs

Unified Soil Classification System

MAJOR DIVISIONS					TYPICAL NAMES
COARSE GRAINED SOILS MORE THAN HALF IS LARGER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVEL-SAND MIXTURES
			GP		POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, POORLY GRADED GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, POORLY GRADED GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS, GRAVELLY SANDS
			SP		POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS, POORLY GRADED SAND-SILT MIXTURES
			SC		CLAYEY SANDS, POORLY GRADED SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN HALF IS SMALLER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		INORGANIC SILTS & VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, CLEAN CLAYS
			OL		ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS AND ORGANIC CLAYEY SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS

Sieve Size or U.S. Standard Sieve Number

10"	3"	3/4"	4	10	40	200	
BOULDERS	COBBLES	GRAVELS		SANDS			SILTS & CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

Relative Consistency Classifications

GRANULAR	COHESIVE
Silts, Sands and Gravels	Clays and Clayey Silts
VERY LOOSE	SOFT
LOOSE	MEDIUM STIFF
MEDIUM DENSE	STIFF
DENSE	VERY STIFF
VERY DENSE	HARD

Relative Moisture Contents

DRY
DAMP
MOIST
WET
SATURATED

PROJECT NO.: 029		
DRAWN BY:	BDM	3/13/98
CHECKED BY:		
APPROVED BY:		
REVISED BY:		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

PLATE C1
Soil Classification Chart
1735 24th Street
Oakland, California

Log of Boring B-10

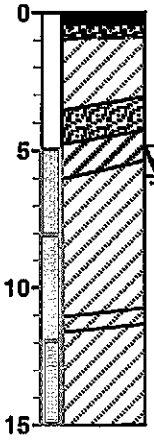
Equipment: Power Probe 9600, Direct Push

Drill Date: 8/29/00

Elevation:

Logged By: CES

Hydrocarbon Odor	Blows/foot	Depth (ft) Sample
None		0
None		5
None		10
None		15

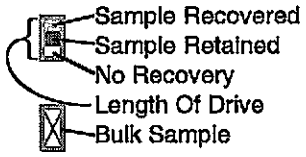


Asphalt
Baserock
Green Gray SANDY CLAY (CL)
moist, soft, no odor, grades to medium stiff
FILL, mixed debris and soil
Mottled Dark Gray and Brown CLAY (CH)
moist, soft, abundant organic debris
Green Gray SILTY CLAY (CL)
moist to wet, soft

Dark Gray SANDY CLAY (CL)
wet, soft
Green Gray SILTY CLAY (CL)
wet, soft

NOTES:
1) Hand auger through first five feet for utility clearance.
2) Water enters boring slowly.
3) Set temporary well casing before collecting groundwater sample.
4) Abandoned boring with bentonite chips and tremie grouting.

LEGEND:



* Equivalent "Standard Penetration" blow counts

Water encountered

PROJECT NO.: 029		
DRAWN BY:	CES	10/24/00
CHECKED BY:		
APPROVED BY:		
REVISED BY:		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

PLATE C2
Log of Boring B-10
Pacific Coast Building Products
1735 24th Street
Oakland, California

Log of Boring B-11

Equipment: Power Probe 9600, Direct Push

Drill Date: 8/29/00

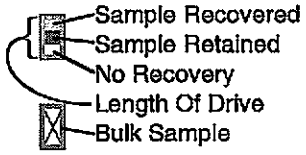
Elevation:

Logged By: CES

Hydrocarbon Odor	Blows/foot	Depth (ft) Sample	
None		0	Asphalt Baserock Orange Brown SILTY SAND (SM) moist, loose, orange mottling
		5	Green Gray SANDY CLAY (CL) moist, medium stiff, abundant roots Green Gray SILTY SAND (SM) wet, loose, trace clay, clay increasing with depth Brown SAND (SW) wet, loose
		10	Dark Gray PEAT AND CLAY (Pt/OH)
		15	No recovery from 5 feet to 15 feet, soft clay observed on drill rods

NOTES:
1) Hand auger through first five feet for utility clearance.
2) Set temporary well casing before collecting groundwater sample.
3) Abandoned boring with bentonite chips and tremie grouting.

LEGEND:



* Equivalent "Standard Penetration" blow counts

Water encountered

PROJECT NO.: 029		
DRAWN BY:	CES	10/24/00
CHECKED BY:		
APPROVED BY:		
REVISED BY:		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

PLATE C3
Log of Boring B-11
Pacific Coast Building Products
1735 24th Street
Oakland, California

Log of Boring B-12

Equipment: Power Probe 9600, Direct Push

Drill Date: 8/29/00

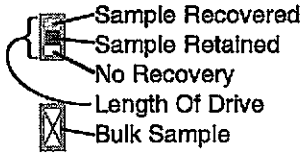
Elevation:

Logged By: CES

Depth (ft) Sample	Blows/foot	Hydrocarbon Odor	
0			Asphalt Baserock Dark Green Gray SILTY CLAY (CL) moist, medium stiff
		None	Dark Gray SILTY SAND (SM) wet, medium dense, trace clay
5		None	Gray Green SANDY CLAY (CL) moist, medium stiff, <10% sand
			Dark Gray PEAT AND CLAY (Pt/OH) saturated, loose
10			Gray Green SILTY CLAY (CL) moist, soft, abundant roots
			No recovery from 8 to 15 feet, soft clay (Bay Mud) observed on drill rods
15			

NOTES:
1) Hand auger through first five feet for utility clearance.
2) Set temporary well casing before collecting groundwater sample.
3) Abandoned boring with bentonite chips and tremie grouting.

LEGEND:



* Equivalent "Standard Penetration" blow counts

Water encountered

PROJECT NO.: **029**		
DRAWN BY:	CES	10/24/00
CHECKED BY:		
APPROVED BY:		
REVISED BY:		

BACE Environmental
A Division Of
Brunsing Associates, Inc.

PLATE C4
Log of Boring B-12
Pacific Coast Building Products
1735 24th Street
Oakland, California

APPENDIX D
Analytical Laboratory Reports

BACE Analytical & Field Services
A Division of Brunsing Associates, Inc.

October 26, 2000
Log No: 3488
Laboratory Certificate Number: 1264

BACE Environmental
a division of
Brunsing Associates, Inc.
P.O. Box 588
Windsor, CA 95492

ATTN: Carl Schwab

RE: Results of the analyses of groundwater samples obtained for project number 029.14 on August 29, 2000.

Dear Mr. Schwab,

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

Client: BACE Environmental
Client Contact: Carl Schwab

Sample Date: 8/29/00
Analysis Date: 9/9/00

BAFS Log No: 3488

METHOD: EPA 5030/8020

Matrix: Water
Results - µg/L

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	3488-1 (B-10W)	3488-2 (B-11W)
Benzene	0.5		1.4	ND
Toluene	0.5		1.4	ND
Ethylbenzene	0.5		ND	ND
Xylenes (total)	0.5		1.0	ND
Dilution Factor			1	1

METHOD: EPA 5030 / GC FID

Results - mg/L

Parameter	Reporting Limit mg/L	Lab No.: Descriptor:	3488-1 (B-10W)	3488-2 (B-11W)
TPH - gasoline	0.05		0.060	ND
Dilution Factor			1	1

Note: *ND = not detected*

Client: BACE Environmental
Client Contact: Carl Schwab

Sample Date: 8/29/00
Analysis Date: 9/9/00

BAFS Log No: 3488

METHOD: EPA 5030/8020

Matrix: Water
Results - µg/L

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	3488-1 (B-12W)
Benzene	0.5		ND
Toluene	0.5		ND
Ethylbenzene	0.5		ND
Xylenes (total)	0.5		ND
Dilution Factor			1

METHOD: EPA 5030 / GC FID

Results - mg/L

Parameter	Reporting Limit mg/L	Lab No.: Descriptor:	3488-3 (B-12W)
TPH - gasoline	0.05		ND
Dilution Factor			1

Note: *ND = not detected*

QUALITY CONTROL SUMMARY

Client: BACE Environmental
Client Contact: Carl Schwab
Sample Date: 8/29/00
Analysis Date: 9/9/00

BAFS Log No: 3488

Matrix: Water

Parameter	% RECOVERY				
	CCV%*	Blank	Spike	Spike Dup	RPD
Gasoline	94	ND	88	101	14.0
Benzene	95	ND	93	95	2.1
Toluene	104	ND	110	107	2.8
Ethylbenzene	100	ND	103	102	1.0
Xylenes	97	ND	115	111	3.5

* Continuous Calibration Verification Standard

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	ANALYSIS: TPH Gas & BTEX	№ 2302
029.14	1735 24th St.			
L.P. NO.	SAMPLERS: (Signature) Carl Schwab			

DATE	SAMPLE I.D.	TYPE	NO. OF CONTAINERS	ANALYSIS: TPH Gas & BTEX	REMARKS
8/24/00	B-10W	Water	3	3 4 0 -1	3 VOAs
↓	B-11W	↓	↓	-2	
↓	B-12W	↓	↓	-3	

LABORATORY: BACE Analytical & Field Services

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Remarks
Carl Schwab	8/24/00 19:00		Routine TAT
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Results Attn: Carl Schwab
Relinquished by: (Signature)	Date/Time 8/30/00 0900	Received for Laboratory by: (Signature)	

BRUNSING ASSOCIATES, INC.

Offices:

PO Box 588
Windsor CA 95492
707-838-3027

1735 E. Bayshore Rd., 1A
Redwood City CA 94063
415-364-9031

1215 Elk St., Ste. B
Rock Springs WY 82901
307-362-9277

BACE Analytical & Field Services
A Division of Brunsing Associates, Inc.

November 6, 2000
Log No: 3493
Laboratory Certificate Number: 1264

BACE Environmental
a division of
Brunsing Associates, Inc.
P.O. Box 588
Windsor, CA 95492

ATTN: Carl Schwab

RE: Results of the analyses of groundwater samples obtained for project number 029.7 on August 29, 2000.

Dear Mr. Schwab,

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

Client: BACE Environmental
Client Contact: Carl Schwab

Sample Date: 8/31/00
Analysis Date: 9/9/00

BAFS Log No: 3493

METHOD: EPA 5030/8020

Matrix: Water
Results - µg/L

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	3493-1 (MW-2)
Benzene	0.5		120
Toluene	0.5		16
Ethylbenzene	0.5		ND
Xylenes (total)	0.5		28
Dilution Factor			10

METHOD: EPA 5030 / GC FID

Results - mg/L

Parameter	Reporting Limit mg/L	Lab No.: Descriptor:	3493-1 (MW-2)
TPH - gasoline	0.05		3.5
Dilution Factor			10

Note: *ND = not detected*

QUALITY CONTROL SUMMARY

Client: BACE Environmental
Client Contact: Carl Schwab
Sample Date: 8/29/00
Analysis Date: 9/9/00

BAFS Log No: 3493

Matrix: Water

Parameter	% RECOVERY				
	CCV%*	Blank	Spike	Spike Dup	RPD
Gasoline	91	ND	88	97	9.7
Benzene	93	ND	96	107	8.0
Toluene	93	ND	107	109	1.9
Ethylbenzene	90	ND	107	112	4.6
Xylenes	94	ND	112	114	1.8

* Continuous Calibration Verification Standard

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	ANALYSIS	№ 2301
029.7	1735 24th St.			
L.P. NO.	SAMPLERS: (Signature) Carl Schwab			

DATE	SAMPLE I.D.	TYPE	NO. OF CONTAINERS	ANALYSIS: TPH Gas & BTEX	REMARKS
8/29/00	MW-2	Water	2	✓	2 VOAs 3493-1

LABORATORY: BACE Analytical

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Remarks
Carl Schwab	8/29/00 1900	William G. Pate	ROUTINE TAT
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Results Attn: Carl Schwab
Relinquished by: (Signature)	Date/Time 8/30/00 0900	Received for Laboratory by: (Signature) M	

BRUNSING ASSOCIATES, INC.

Offices:

PO Box 588
Windsor CA 95492
707-838-3027

1735 E. Bayshore Rd., 1A
Redwood City CA 94063
415-364-9031

1215 Elk St., Ste. B
Rock Springs WY 82901
307-362-9277

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

November 21 , 2000

Carl Schwab
Brunsing Associates, Inc.
PO Box 588
Windsor, CA 95492
RE: Oxygenates

Enclosed are the results of analyses for samples received by the laboratory on 08/29/00 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard Stover
Project Manager

CA ELAP Certificate Number 2374

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-10W	P008644-01	Water	08/29/00 00:00	08/29/00 17:15
B-11W	P008644-02	Water	08/29/00 00:00	08/29/00 17:15
B-12W	P008644-03	Water	08/29/00 00:00	08/29/00 17:15
MW-2	P008644-04	Water	08/29/00 00:00	08/29/00 17:15

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-10W (P008644-01) Water Sampled: 08/29/00 00:00 Received: 08/29/00 17:15									
1,2-Dibromoethane	ND	2.00	ug/l	1	0090032	09/07/00	09/07/00	EPA 8260B	
1,2-Dichloroethane	ND	2.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.660**	0.500	"	"	"	"	"	"	
Tert-amyl methyl ether	**4.03**	2.00	"	"	"	"	"	"	
Tert-butyl alcohol	**58.3**	40.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*76.0-114*	"	"	"	"	"	
Surrogate: Toluene-d8		*90.8 %*	*88.0-110*	"	"	"	"	"	
B-11W (P008644-02) Water Sampled: 08/29/00 00:00 Received: 08/29/00 17:15									O-04
1,2-Dibromoethane	ND	10.0	ug/l	5	0090024	09/06/00	09/06/00	EPA 8260B	
1,2-Dichloroethane	ND	10.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	10.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.50	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	10.0	"	"	"	"	"	"	
Tert-butyl alcohol	ND	500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*97.4 %*	*76.0-114*	"	"	"	"	"	
Surrogate: Toluene-d8		*88.8 %*	*88.0-110*	"	"	"	"	"	
B-12W (P008644-03) Water Sampled: 08/29/00 00:00 Received: 08/29/00 17:15									
1,2-Dibromoethane	ND	5.00	ug/l	2.5	0090045	09/09/00	09/09/00	EPA 8260B	
1,2-Dichloroethane	ND	5.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.25	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	5.00	"	"	"	"	"	"	
Tert-butyl alcohol	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.8 %*	*76.0-114*	"	"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*88.0-110*	"	"	"	"	"	

Sequoia Analytical

1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (P009644-04) Water Sampled: 09/29/00 00:00 Received: 08/29/00 17:15									
1,2-Dibromoethane	ND	2.00	ug/l	1	0090045	09/10/00	09/10/00	EPA 8260B	
1,2-Dichloroethane	ND	2.00	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.00	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
Methyl tert-butyl ether	**5.09**	0.500	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	2.00	"	"	"	"	"	"	
Tert-butyl alcohol	**102**	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*98.8 %*	*76.0-114*	"	"	"	"	"	
Surrogate: Toluene-d8		*102 %*	*88.0-110*	"	"	"	"	"	

Sequoia Analytical
1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St, /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090024 - EPA 5030B [P/T]										
Blank (0090024-BLK1)				Prepared & Analyzed: 09/06/00						
1,2-Dibromoethane	ND	2.00	ug/l							
1,2-Dichloroethane	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	40.0	"							
Surrogate: 1,2-Dichloroethane-d4	*53.4*		"	*50.0*		*107*	*76.0-114*			
Surrogate: Toluene-d8	*47.8*		"	*50.0*		*95.6*	*88.0-110*			
Blank (0090024-BLK2)				Prepared & Analyzed: 09/07/00						
1,2-Dibromoethane	ND	2.00	ug/l							
1,2-Dichloroethane	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	40.0	"							
Surrogate: 1,2-Dichloroethane-d4	*47.3*		"	*50.0*		*94.6*	*76.0-114*			
Surrogate: Toluene-d8	*44.6*		"	*50.0*		*89.2*	*88.0-110*			
LCS (0090024-BS1)				Prepared & Analyzed: 09/06/00						
Methyl tert-butyl ether	38.2	2.00	ug/l	50.0		76.4	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	*41.6*		"	*50.0*		*83.2*	*76.0-114*			
Surrogate: Toluene-d8	*47.2*		"	*50.0*		*94.4*	*88.0-110*			
LCS (0090024-BS2)				Prepared & Analyzed: 09/07/00						
Methyl tert-butyl ether	56.4	2.00	ug/l	50.0		113	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	*52.8*		"	*50.0*		*106*	*76.0-114*			
Surrogate: Toluene-d8	*49.9*		"	*50.0*		*99.8*	*88.0-110*			

Sequoia Analytical
1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090024 - EPA 5030B [P/T]										
Matrix Spike (0090024-MS1)	Source: L009010-01			Prepared & Analyzed: 09/06/00						
Methyl tert-butyl ether	49.6	2.00	ug/l	50.0	3.25	92.7	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	*46.4*		"	*50.0*		*92.8*	*76.0-114*			
Surrogate: Toluene-d8	*47.3*		"	*50.0*		*94.6*	*88.0-110*			
Matrix Spike Dup (0090024-MSD1)	Source: L009010-01			Prepared & Analyzed: 09/06/00						
Methyl tert-butyl ether	54.0	2.00	ug/l	50.0	3.25	102	60.0-140	9.55	25.0	
Surrogate: 1,2-Dichloroethane-d4	*49.9*		"	*50.0*		*99.8*	*76.0-114*			
Surrogate: Toluene-d8	*46.7*		"	*50.0*		*93.4*	*88.0-110*			
Batch 0090032 - EPA 5030B [P/T]										
Blank (0090032-BLK1)				Prepared & Analyzed: 09/07/00						
1,2-Dibromoethane	ND	2.00	ug/l							
1,2-Dichloroethane	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	40.0	"							
Surrogate: 1,2-Dichloroethane-d4	*47.3*		"	*50.0*		*94.6*	*76.0-114*			
Surrogate: Toluene-d8	*44.6*		"	*50.0*		*89.2*	*88.0-110*			
LCS (0090032-BS1)				Prepared & Analyzed: 09/07/00						
Methyl tert-butyl ether	56.4	2.00	ug/l	50.0		113	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	*52.8*		"	*50.0*		*106*	*76.0-114*			
Surrogate: Toluene-d8	*49.9*		"	*50.0*		*99.8*	*88.0-110*			

Sequoia Analytical
1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090032 - EPA 5030B [P/T]										
Matrix Spike (0090032-MS1)	Source: L009012-02			Prepared & Analyzed: 09/07/00						
Methyl tert-butyl ether	54.9	2.00	ug/l	50.0	ND	110	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	*48.7*		"	*50.0*		*97.4*	*76.0-114*			
Surrogate: Toluene-d8	*54.7*		"	*50.0*		*109*	*88.0-110*			
Matrix Spike Dup (0090032-MSD1)	Source: L009012-02			Prepared & Analyzed: 09/07/00						
Methyl tert-butyl ether	42.9	2.00	ug/l	50.0	ND	85.8	60.0-140	24.7	25.0	
Surrogate: 1,2-Dichloroethane-d4	*40.1*		"	*50.0*		*80.2*	*76.0-114*			
Surrogate: Toluene-d8	*45.5*		"	*50.0*		*91.0*	*88.0-110*			
Batch 0090045 - EPA 5030B [P/T]										
Blank (0090045-BLK1)				Prepared & Analyzed: 09/09/00						
1,2-Dibromoethane	ND	2.00	ug/l							
1,2-Dichloroethane	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	40.0	"							
Surrogate: 1,2-Dichloroethane-d4	*49.2*		"	*50.0*		*98.4*	*76.0-114*			
Surrogate: Toluene-d8	*50.0*		"	*50.0*		*100*	*88.0-110*			
Blank (0090045-BLK2)				Prepared & Analyzed: 09/10/00						
1,2-Dibromoethane	ND	2.00	ug/l							
1,2-Dichloroethane	ND	2.00	"							
Di-isopropyl ether	ND	2.00	"							
Ethyl tert-butyl ether	ND	2.00	"							
Methyl tert-butyl ether	ND	2.00	"							
Tert-amyl methyl ether	ND	2.00	"							
Tert-butyl alcohol	ND	40.0	"							
Surrogate: 1,2-Dichloroethane-d4	*47.6*		"	*50.0*		*95.2*	*76.0-114*			
Surrogate: Toluene-d8	*49.0*		"	*50.0*		*98.0*	*88.0-110*			

Sequoia Analytical
1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Volatile Organic Oxygenated Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090045 - EPA 5030B [P/T]										
LCS (0090045-BS1)				Prepared & Analyzed: 09/09/00						
Methyl tert-butyl ether	50.3	2.00	ug/l	50.0		101	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	*49.2*		"	*50.0*		*98.4*	*76.0-114*			
Surrogate: Toluene-d8	*50.3*		"	*50.0*		*101*	*88.0-110*			
LCS (0090045-BS2)				Prepared & Analyzed: 09/10/00						
Methyl tert-butyl ether	51.4	2.00	ug/l	50.0		103	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	*49.8*		"	*50.0*		*99.6*	*76.0-114*			
Surrogate: Toluene-d8	*50.8*		"	*50.0*		*102*	*88.0-110*			
Matrix Spike (0090045-MS1)	Source: L009038-05			Prepared & Analyzed: 09/09/00						
Methyl tert-butyl ether	50.1	2.00	ug/l	50.0	ND	100	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		"	*50.0*		*102*	*76.0-114*			
Surrogate: Toluene-d8	*49.8*		"	*50.0*		*99.6*	*88.0-110*			
Matrix Spike Dup (0090045-MSD1)	Source: L009038-05			Prepared & Analyzed: 09/09/00						
Methyl tert-butyl ether	48.6	2.00	ug/l	50.0	ND	97.2	60.0-140	2.84	25.0	
Surrogate: 1,2-Dichloroethane-d4	*49.1*		"	*50.0*		*98.2*	*76.0-114*			
Surrogate: Toluene-d8	*50.2*		"	*50.0*		*100*	*88.0-110*			

Sequoia Analytical
1455 McDowell Blvd. North, Ste. D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Brunsing Associates, Inc.	Project: Oxygenates	
PO Box 588	Project Number: 1735 24th St. /029	Reported:
Windsor CA, 95492	Project Manager: Carl Schwab	11/21/00 15:41

Notes and Definitions

O-04	This sample was diluted due to high non-target compounds.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

P.10/10
NO.571
SEQUOIA ANALYTICAL
3:37PM
DEC.14.2000

PROJ. NO.	PROJECT NAME
029	1735 24th St.
P.O. NO.	SAMPLERS: (Signature)
	Carl Schwab

NO. 2300

DATE	SAMPLE I.D.	TYPE	NO. OF CONTAINERS	ANALYSIS: Petroleum Oxygenates (By 8260B)	REMARKS
8/9/00	B-10W	Water	3	✓	1
↓	B-11W	↓	↓	✓	2
	B-12W			✓	3
↓	MW-2	↓	↓	✓	4

COOLER CUSTODY SEALS INTACT ☐
NOT INTACT ☐ NA
COOLER TEMPERATURE 10 °C

LABORATORY: Sequoia Analytical

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Carl Schwab	8/9/00 1715	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)

Remarks
ROUTINE TAT
Results Attn:
Carl Schwab

BRUNSING ASSOCIATES, INC.

Offices:

PO Box 588
Windsor CA 95492
707-838-3027

1535 E. Bayshore Rd., 1A
Redwood City CA 94063
415-364-9031

1215 Elk St., Ste. B
Rock Springs WY 82901
307-362-9277