BLYMYER
ENGINEERS, INC.

Rec'd 5/23/95 during meeting SHugo

May 18, 1995
BEI Job No. 89070

STID 363

Ms. Caroline Baxter
1301 65th Street Association
1939 Harrison Street, Suite 605
Oakland, CA 94612

Subject: **First Quarter 1995 Groundwater Monitoring**
1301 65th Street
Emeryville, California

Dear Ms. Baxter:

This letter constitutes the quarterly groundwater monitoring report for the First Quarter 1995 for the subject site. This work was performed in accordance with the letter from Blymyer Engineers, Inc. to the Alameda County Department of Environmental Health (ACDEH), dated July 11, 1994, and the letter from the ACDEH to Mr. Charles Gensler, dated October 14, 1994.

1.0 Introduction

1.1 Background

One 2,000-gallon gasoline underground storage tank (UST) was removed from the subject site on June 9, 1988. The UST removal was performed for the previous property owner, Mr. Charles Gensler, under the supervision of Blymyer Engineers. The UST was installed in 1952 and had been out-of-service since 1972. The UST was inspected upon removal and two 1-inch-diameter holes were found. Groundwater was present in the excavation at a depth of approximately 12 feet below ground surface (bgs). A sheen was visible on the groundwater in the excavation. Three soil samples were collected from the bottom of the excavation and analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Only one soil sample contained detectable concentrations of TPH as gasoline at 180 milligrams per kilogram (mg/kg) and benzene at 0.053 mg/kg. The UST backfill material, consisting of partially cemented foundry sand, was excavated, aerated on-site, and properly disposed of off the site.

One 23-foot-deep, 2-inch-diameter groundwater monitoring well, MW-1, was installed by Blymyer Engineers on June 8, 1988, in the inferred downgradient direction (southwest). The monitoring well was installed 25 feet from the UST excavation, rather than within 10 feet as specified in the Regional Water Quality Control Board's *Tri-Regional Guidelines*, due to the presence of an overhead power line. Soil samples were collected during the installation of the monitoring well at approximate depths of 5, 10, and 15 feet bgs. The soil samples were analyzed for TPH as gasoline and BTEX. In the soil sample collected at approximately 5 feet bgs, TPH

as gasoline was detected at 35 mg/kg, benzene at 0.580 mg/kg, toluene at 0.460 mg/kg, ethylbenzene at 0.670 mg/kg, and total xylenes at 4.9 mg/kg. In the soil sample collected at approximately 10 feet bgs, TPH as gasoline was detected at 0.630 mg/kg and benzene at 0.020 mg/kg. TPH as gasoline and BTEX were not detected in the soil sample collected at approximately 15 feet bgs.

Groundwater was encountered initially during drilling at a depth of approximately 14.5 feet bgs and stabilized at a depth of approximately 3 to 4 feet bgs. The site stratigraphy generally consisted of clay with varying amounts of silt and sand.

A groundwater sample was initially collected from well MW-1 on June 10, 1988, and quarterly groundwater sampling was performed from February 1989 to May 1991. Quarterly groundwater sampling was resumed in May 1994. The groundwater sample analytical results for all previous sampling events are summarized in Table I.

A neighboring site file review was performed in May 1994 by Blymyer Engineers to establish the regional groundwater flow direction. Based on the review of the ACDEH files for several neighboring sites, groundwater in the immediate vicinity of the subject site appears to flow generally towards the west to southwest, which is towards San Francisco Bay.

1.2 Site Conditions

The subject site is located in an industrial area in northern Emeryville, California (Figure 1). The site consists of a single building surrounded by asphalt and concrete paving. The former gasoline UST was located in the northwest portion of the site in a former automobile parking area (Figure 2). The site is presently occupied by Sybase, a computer software developer.

The site is located approximately 2,500 feet east of San Francisco Bay at an approximate elevation of 20 feet above mean sea level.

2.0 Data Collection

2.1 Groundwater Elevation Measurements

The depths to groundwater in well MW-1 at the subject site and wells MW-1, MW-2, and MW-3 at the Rix Industries site were measured by Blymyer Engineers and Hageman-Aguilar, the consultant for the Rix Industries site, on February 13, 1995. The top-of-casing elevations, depths to groundwater, and groundwater elevations for these four wells are summarized in Table II.

2.2 Groundwater Sample Collection

A groundwater sample was collected from well MW-1 at the subject site by Blymyer Engineers on February 15, 1995. Prior to sampling, approximately three well casing volumes (10.25 gallons total) of groundwater were purged from the well using a disposable polyethylene bailer and placed in a Department of Transportation-approved, 55-gallon drum for later disposal by the client. Temperature, conductivity, and pH were measured initially and after the removal of each well casing volume. A representative groundwater sample was collected and placed in three 40-milliliter vials, containing hydrochloric acid preservative, provided by the laboratory. The vials were fitted with Teflon®-lined lids, labeled, and placed in a cooler with blue ice. The Well Purging and Sampling Data form is included in Appendix A.

2.3 Analytical Methods and Results

The groundwater sample was delivered via courier to National Environmental Testing, Inc. (NET), a California-certified analytical laboratory, and analyzed for TPH as gasoline using modified EPA Method 8015 and BTEX using EPA Method 8020. The analytical results are summarized in Table I and the laboratory report is included in Appendix A.

3.0 Data Interpretation

3.1 Groundwater Gradient

The depth to groundwater in well MW-1 has decreased 0.16 feet since the last groundwater sampling event. Based on the groundwater elevations in well MW-1 and the wells at the neighboring Rix Industries site, the direction of groundwater flow on February 13, 1995, was determined to be generally to the southwest (Figure 2), which is consistent with the flow direction determined during the last groundwater sampling event in November 1994. The approximate groundwater gradient was 0.060 feet per foot. The interpretation of groundwater contours depicted in Figure 2 was made within the confines of the spatial distribution of the data points.

3.2 Discussion of Groundwater Sample Analytical Results

TPH as gasoline and toluene were not found in the groundwater sample above the respective method reporting limits. Benzene, ethylbenzene, and total xylenes were detected in the groundwater sample at concentrations of 28, 2.0, and 1.2 micrograms per liter (µg/L), respectively. This represents no change in the benzene concentration, an increase in the ethylbenzene concentration, and a decrease in the total xylenes concentration since the last

groundwater sampling event. The benzene concentration is still well below the historical high concentration of 440 µg/L in the February 1990 groundwater sampling event. TPH as gasoline has not been detected above the method reporting limit for the last five consecutive groundwater sampling events.

4.0 Recommendations

A copy of this report should be submitted to the following regulatory agencies:

Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502
Attn: Susan Hugo

California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612
Attn: Richard Heitt

This completes the four consecutive quarters of monitoring required by the ACDEH in its letter to Mr. Charles Gensler, dated October 14, 1994. All other information and documentation requested in that letter has been forwarded to the ACDEH. Therefore, Blymyer Engineers recommends that the case be reviewed for closure by the ACDEH.

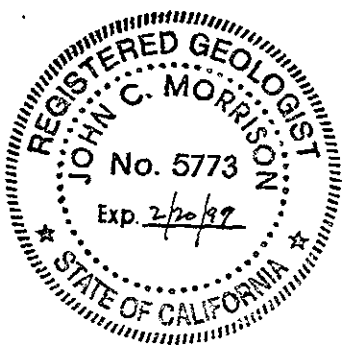
5.0 Limitations

Services performed by Blymyer Engineers, Inc. have been provided in accordance with generally accepted professional practices for the nature and conditions of similar work completed in the same or similar localities, at the time the work was performed. The scope of work for the project was conducted within the limitations prescribed by the client. This report is not meant to represent a legal opinion. No other warranty, expressed or implied, is made. This report was prepared for the sole use of 1301 65th Street Association.

If you have any questions, please contact Mike Lewis at (510) 521-3773.

Cordially,

Blymyer Engineers, Inc.



By: _____
Michael S. Lewis
Vice-President, Technical Services

And: _____
John Morrison, R.G.
Director, Earth Sciences

cc: Mr. Robert Coussan
Mr. Charles Gensler
Joe Armao, Esq.

Enclosures:

Table I:	Summary of Groundwater Sample Analytical Results
Table II:	Groundwater Elevations
Figure 1:	Site Location Map
Figure 2:	Site Plan
Appendix A:	Well Purging and Sampling Data Form, February 15, 1995, and Laboratory Report, NET, February 23, 1995

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TABLES

Table 1, Summary of Groundwater Sample Analytical Results
1301 65th Street Association
1301 65th Street, Emeryville, California
BEI Job No. 89070

Monitoring Well	Sampling Date	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	DTW
		EPA 8015M	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
		mg/L	µg/L	µg/L	µg/L	µg/L	
MW-1	6/10/88*	1.4	<3	<10	<4	15	
	2/13/89	0.21	<1	<0.9	5.6	<2	2.96
	5/8/89	0.36	79	<2	7.5	<4	3.16
	8/8/89	0.24	21	<2	5.2	<7	4.03
	11/8/89	0.44	270	<3	5.9	<9	3.91
	2/8/90	0.56	440	5.6	13	<10	3.67
	5/10/90	0.29	200	<3	<5	<10	3.99
	8/8/90	0.62	430	<5	25	<10	3.90
	11/12/90	0.18	9.4	1.8	<0.5	<0.5	4.45
	2/11/91	1.3	45	1.9	4.8	0.7	3.92
	5/14/91	1.0	61	<0.5	9.5	1.9	3.34
	5/2/94	<0.05	<0.5	<0.5	<0.5	<0.5	2.90
	8/2/94	<0.05	31	<0.5	3.4	2.7	3.46
	8/25/94	<0.05	13	<0.5	<0.5	<0.5	3.58
	11/11/94	<0.05	28	4.3	<0.5	5.0	2.24
	2/15/95	<0.05	28	<0.5	2.0	1.2	2.08

* Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 624

TPH = Total Petroleum Hydrocarbons
mg/L = milligrams per liter (parts per million)
µg/L = micrograms per liter (parts per billion)

Note: For results shown as <x, x represents the method reporting limit.

Table II, Groundwater Elevations
1301 65th Street Association/Rix Industries
1301 65th Street/6460 Hollis Street, Emeryville, California
BEI Job No. 89070

Monitoring Well	Date	TOC Elevation* (feet)	Depth to Water (feet)	Groundwater Elevation (feet)
MW-1[1]	11/11/94	100.66	2.24	98.42
	2/13/95		2.08	98.58
MW-1[2]	11/11/94	100.00	2.08	97.92
	2/13/95		2.25	97.75
MW-2[2]	11/11/94	100.04	1.89	98.15
	2/13/95		2.12	97.92
MW-3[2]	11/11/94	101.99	2.38	99.61
	2/13/95		2.49	99.50

TOC = Top-of-Casing

* Arbitrary datum of 100.00 feet is top-of-rim on MW-1 well box at Rix Industries site

[1] Monitoring well at 1301 65th Street Association site

[2] Monitoring wells at Rix Industries site

FIGURES

SOURCE: UNITED STATES GEOGRAPHICAL SURVEY 7.5' QUAD. "OAKLAND WEST, CA" PHOTOREVISED 1980.

BLYMYER ENGINEERS, INC.

0 1000 2000
SCALE IN FEET

N

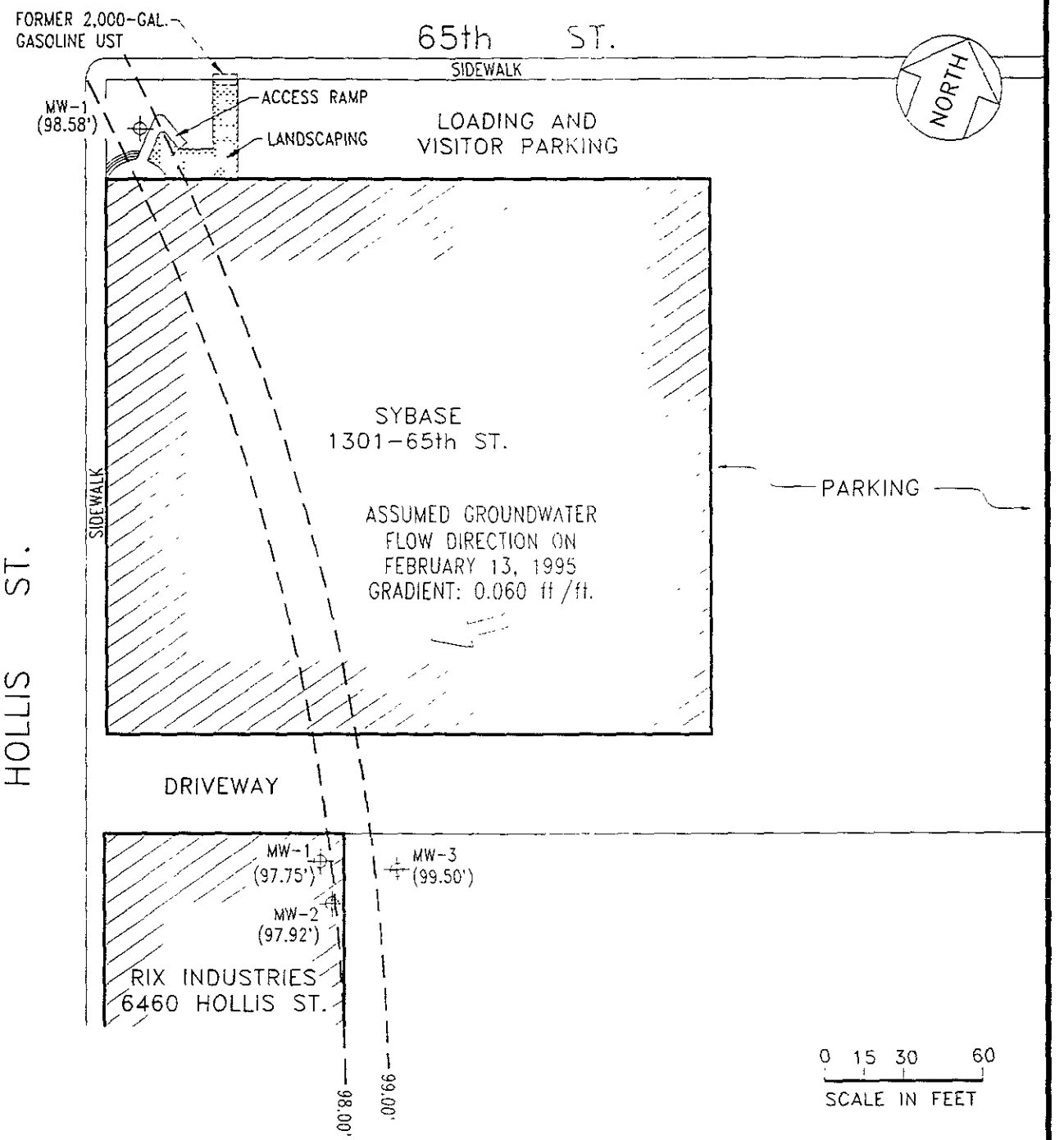
SITE LOCATION MAP

1301 65th ST. ASSOCIATION
1301 65th ST.
EMERYVILLE, CA

FIGURE 1

BEI JOB NO. 89070

DATE 5/24/94



BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
89070	2/23/95

LEGEND
- ⊕ MONITORING WELL
- (98.58') GROUNDWATER ELEVATION ON 2/13/95
- UST UNDERGROUND STORAGE TANK

SITE PLAN
1301 65th ST. ASSOCIATION
EMERYVILLE, CA, CA

FIGURE 2

H:\PUBLIC\ACADLW\890702C

APPENDIX A
WELL PURGING AND SAMPLING DATA FORM, FEBRUARY 15, 1995
LABORATORY REPORT, NET, FEBRUARY 23, 1995

Well Purging and Sampling Data

Date	2/15/95	Project Number	89070	Project Name	1301 65th St. Assoc.
Well Number	MW-1	Boring Diameter	N/A	Casing Diameter	2"

Column of Liquid in Well		Volume to be Removed	
Depth to product	N/A	Gallons per foot of casing	= 0.17 gal/ft.
Depth to water	2.33 ft.	Column of water	x 20.02 ft.
Total depth of well	22.35 ft.	Volume of casing	= 3.4 gal.
Column of water	20.02 ft.	No. of volumes to remove	x 3
		Total volume to remove	= 10.2 gal.

Method of measuring liquid	Oil/water interface probe
Method of purging well	Disposable polyethylene bailer
Method of decontamination	Liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	Clear, no odor
During	Slightly silty, red color, no odor
Final	Silty, red color, no odor

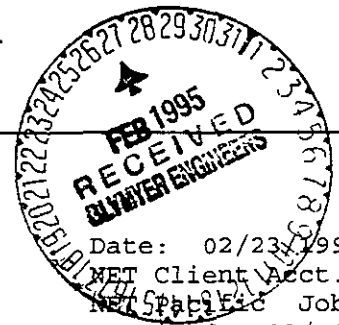
Field Analysis	Initial	During		Final
Time	14:30	14:37	14:46	14:54
Temperature (F)	59.8	59.7	59.8	59.7
Conductivity (us/cm)	1430	1470	1480	1500
pH	6.42	6.37	6.58	6.88
Method of measurement	Hydac meter			
Total volume purged	10.25 gal.			
Comments	Sampled with disposable polyethylene bailer			

Sample Number	Amount of Sample
MW-1	3-40ml VOA w/ HCl

Signed/Sampler	Stephen W. Miller	Date	2/15/95
Signed/Reviewer	Michael S. [illegible]	Date	2/23/95

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel (707) 526-7200
Fax: (707) 526-9623



Mike Lewis
Blymyer Engineers, Inc
1829 Clement Ave
Alameda, CA 94501

Date: 02/23/1995
NET Client Acct. No: 49500
NET Pacific Job No: 95.00749
Received: 02/16/1995

Client Reference Information

Peterson/Emeryville, CA/Job No. 89070

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Thomas F. Cullen, Jr.
Division Manager

Judy Ridley
Project Coordinator

Enclosure(s)

Ref: Peterson/Emeryville, CA/Job No. 89070

SAMPLE DESCRIPTION: MW-1
Date Taken: 02/15/1995
Time Taken: 15:15
NET Sample No: 236251

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						02/20/1995	2601
DILUTION FACTOR*	1						02/20/1995	2601
as Gasoline	ND **		0.05	mg/L	5030		02/20/1995	2601
METHOD 8020 (GC,Liquid)	--						02/20/1995	2601
Benzene	28		0.5	ug/L	8020		02/20/1995	2601
Toluene	ND		0.5	ug/L	8020		02/20/1995	2601
Ethylbenzene	2.0		0.5	ug/L	8020		02/20/1995	2601
Xylenes (Total)	1.2		0.5	ug/L	8020		02/20/1995	2601
SURROGATE RESULTS	--						02/20/1995	2601
Bromofluorobenzene (SURR)	108			% Rec.	5030		02/20/1995	2601

** Positive response that is quantified against the gasoline standard is present as 1.8 mg/L. The positive result appears to be a lighter hydrocarbon than gasoline. No gasoline fuel present.

Ref· Peterson/Emeryville, CA/Job No. 89070

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)							
as Gasoline	108.0	1.08	1.00	mg/L	02/20/1995	aal	2601
Benzene	91.8	4.59	5.00	ug/L	02/20/1995	aal	2601
Toluene	100.8	5.04	5.00	ug/L	02/20/1995	aal	2601
Ethylbenzene	85.8	4.29	5.00	ug/L	02/20/1995	aal	2601
Xylenes (Total)	102.0	15.3	15.0	ug/L	02/20/1995	aal	2601
Bromofluorobenzene (SURR)	95.0	95	100	% Rec.	02/20/1995	aal	2601

Ref: Peterson/Emeryville, CA/Job No. 89070

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	02/20/1995	aal	2601
Benzene	ND	0.5	ug/L	02/20/1995	aal	2601
Toluene	ND	0 5	ug/L	02/20/1995	aal	2601
Ethylbenzene	ND	0.5	ug/L	02/20/1995	aal	2601
Xylenes (Total)	ND	0.5	ug/L	02/20/1995	aal	2601
Bromofluorobenzene (SURR)	98		% Rec.	02/20/1995	aal	2601

Client Name: Blymyer Engineers, Inc
Client Acct: 49500
NET Job No: 95.00749

Date: 02/23/1995
ELAP Cert: 1386
Page: 5

Ref: Peterson/Emeryville, CA/Job No. 89070

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
TPH (Gas/BTXE,Liquid)											236083
as Gasoline	116.0	113.0	2.6	1.00	ND	1.16	1.13	mg/L	02/20/1995	2601	236083
Benzene	108.3	103.7	4.3	21.8	ND	23.6	22.3	ug/L	02/20/1995	2601	236083
Toluene	106.0	104.4	1.5	81.9	2.6	89.4	88.1	ug/L	02/20/1995	2601	236083

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

5569

BLYMYER
ENGINEERS, INC.
1829 Clement Avenue
Alameda, CA 94501 (510) 521-3773 FAX (510) 865-2594

CHAIN OF CUSTODY RECORD

JOB # 89070 | PROJECT NAME/LOCATION: Peterson / Emeryville CA

SAMPLERS (SIGNATURE): Steph C Mlew

TURNAROUND TIME: Standard DAY(S)

REMARKS:

DATE	TIME	COMP	GRAB	SAMPLE NAME/LOCATION	# OF CONTAINERS	TPH AS GASOLINE + BTXE (MOD EPA 8015/8020)	TPH AS DIESEL (MOD EPA 8015)	VOC (EPA 624/8240)	SEMI-VOC (EPA 625/8270)	TRPH (EPA 418.1)	BTXE (EPA 8020/602)					HOLD	REMARKS
2/15/95	1515		X	MW-1	3	X											05°C

REQUESTED BY: Mike Lewis

RESULTS AND INVOICE TO: Blymyer Engineers, Inc

RELINQUISHED BY: (SIGNATURE)	DATE / TIME	RECEIVED BY: (SIGNATURE)
Steph C Mlew	2/16/95 1540	
		RELINQUISHED BY: (SIGNATURE) / DATE / TIME: 2/16 1650 / RECEIVED BY: (SIGNATURE): 2/16/95 J.M. Greene 1650
RELINQUISHED BY: (SIGNATURE) J.M. Greene	DATE / TIME 2/16/95 1755	RECEIVED FOR LABORATORY BY: (SIGNATURE) J.M. Greene

DATE / TIME: 2/16/95 1755

REMARKS: (NET) TPH. Red: 0.70c

WHITE: Accompany Sample YELLOW: BEI, After Lab Signs PINK: Original Sampler