

PETERSON PROPERTIES

1939 Harrison Street  
Suite 605  
Oakland, California 94612

(510) 835-0200 • FAX (510) 835-0206

STID 363

ALCO  
PLAZA

STANDARD TIME 3:31

11/23/94  
Talked to Mike Lewis (Blymyer)  
re: missing info. to be  
submitted next report  
- need to fabricate historical  
depth to wells

November 22, 1994

Ms. Susan Hugo  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

Re: Quarterly Groundwater Sampling  
1301 65th Street  
Emeryville, California

Dear Susan:

Attached is the second quarter monitoring report for 1301 65th Street, Emeryville, California. This sampling was taken in August of 1994. As you are aware, we are forwarding these documents to you on behalf of Mr. Charles Gensler.

In the future, we have both authorized and directed Blymyer Engineers, Inc. to send the quarterly reports directly to you at the Alameda County Health Care Services Agency and to the California Regional Water Quality Control Board.

If you have any questions, please give me a call at (510) 835-0200 or call Mr. Mike Lewis, Blymyer Engineers, Inc., at (510) 521-3773.

Best Regards,

*Carolyn*

Carolyn P. Baxter

CPB:jca

Enclosure

cc: Mr. Robert L. Coussan  
Mr. Charles Gensler  
Joseph J. Armao, Esq.  
Mr. Mike Lewis

11/18/95  
Talked to Mike Lewis  
1) final sampling event  
coordinate w/ Rix Industries  
2)



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

**Subject: Quarterly Groundwater Sampling  
1301 65th Street  
Emeryville, California**

Dear Ms. Baxter:

Blymyer Engineers, Inc. has completed the third quarter 1994 sampling of monitoring well MW-1 at the subject site. This work was performed in accordance with the letter from Blymyer Engineers to the Alameda County Department of Environmental Health (ACDEH) dated July 11, 1994.

### **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 infiltrated the excavation to 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), or parts per million, and benzene at 0.053 mg/kg. The UST backfill material, consisting of partially cemented foundry sand, was excavated and properly disposed of off the site.

One 25-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 collected from well MW-1 initially 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 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.

### **Site Conditions**

The subject site is located in an industrial area in northern Emeryville, California (Figures 1 and 2). 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 an automobile parking area (Figure 3). 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.

### **Groundwater Sampling**

A groundwater sample was collected from well MW-1 at the subject site by Blymyer Engineers on August 2, 1994. Prior to sampling, approximately three well casing volumes (9.75 gallons) of groundwater were purged from the well using a disposable polyethylene bailer and placed in a DOT-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<sup>®</sup>-lined lids, labeled, and placed in a cooler with blue ice.

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. 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 31, 3.4, and 2.7 micrograms per liter ( $\mu\text{g/L}$ ), respectively. The analytical results are summarized in Table I and the Well Purging and Sampling Data form and laboratory report are included as Appendix A.

The depth to groundwater in well MW-1 prior to sampling was ~~3.46~~ <sup>3.58</sup> feet below the top of the well casing (TOC). This depth to groundwater represents a decrease of 0.76 feet from the last quarterly sampling event. The TOC elevation has never been determined for this monitoring well since it is the only well at the subject site.

Since TPH as gasoline and BTEX were not detected in the May 1994 quarterly sampling event, another groundwater sample was collected from well MW-1 on August 25, 1994, to confirm the analytical results. The same groundwater sampling and analytical procedures described above were used. TPH as gasoline, toluene, ethylbenzene, and total xylenes were not found in the groundwater sample above the respective method reporting limits. Benzene was detected in the groundwater sample at a concentration of 13  $\mu\text{g/L}$ . The analytical results are summarized in Table I and the Well Purging and Sampling Data form and laboratory report are included as Appendix B.

### 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

Blymyer Engineers recommends that quarterly sampling be continued in accordance with ACDEH requirements. As required by the ACDEH, the TOC elevation for well MW-1 should be surveyed relative to the monitoring wells at a neighboring site to enable the determination of groundwater flow direction. This is currently planned in conjunction with the next quarterly sampling of the monitoring wells at the Rix Industries site in November 1994.

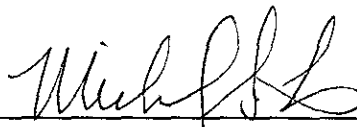
### Limitations

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.

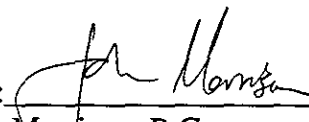
If you have any questions, please contact Mike Lewis at 521-3773.

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   |
| Figure 1:   | Site Location Map  |
| Figure 2:   | Area Map   |
| Figure 3:   | Site Plan  |
| Appendix A: | Well Purging and Sampling Data Form, August 2, 1994, and<br>Laboratory Report, NET, August 16, 1994    |
| Appendix B: | Well Purging and Sampling Data Form, August 25, 1994, and<br>Laboratory Report, NET, September 8, 1994 |

m189070aug.94

**TABLE**

**Table I. 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 |
|-----------------|---------------|-----------------|---------|---------|--------------|---------------|
|                 |               | 8015M           | 8020    | 8020    | 8020         | 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            |
|                 | 5/8/89        | 0.36            | 79      | <2      | 7.5          | <4            |
|                 | 8/8/89        | 0.24            | 21      | <2      | 5.2          | <7            |
|                 | 11/8/89       | 0.44            | 270     | <3      | 5.9          | <9            |
|                 | 2/8/90        | 0.56            | 440     | 5.6     | 13           | <10           |
|                 | 5/10/90       | 0.29            | 200     | <3      | <5           | <10           |
|                 | 8/8/90        | 0.62            | 430     | <5      | 25           | <10           |
|                 | 11/12/90      | 0.18            | 9.4     | 1.8     | <0.5         | <0.5          |
|                 | 2/11/91       | 1.3             | 45      | 1.9     | 4.8          | 0.7           |
|                 | 5/14/91       | 1.0             | 61      | <0.5    | 9.5          | 1.9           |
|                 | 5/2/94        | <0.05           | <0.5    | <0.5    | <0.5         | <0.5          |
|                 | 8/2/94        | <0.05           | 31      | <0.5    | 3.4          | 2.7           |
|                 | 8/25/94       | <0.05           | 13      | <0.5    | <0.5         | <0.5          |

\* 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.



## FIGURES



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



**BLYMYER**  
ENGINEERS, INC.

0 1000 2000

SCALE IN FEET



**SITE LOCATION MAP**

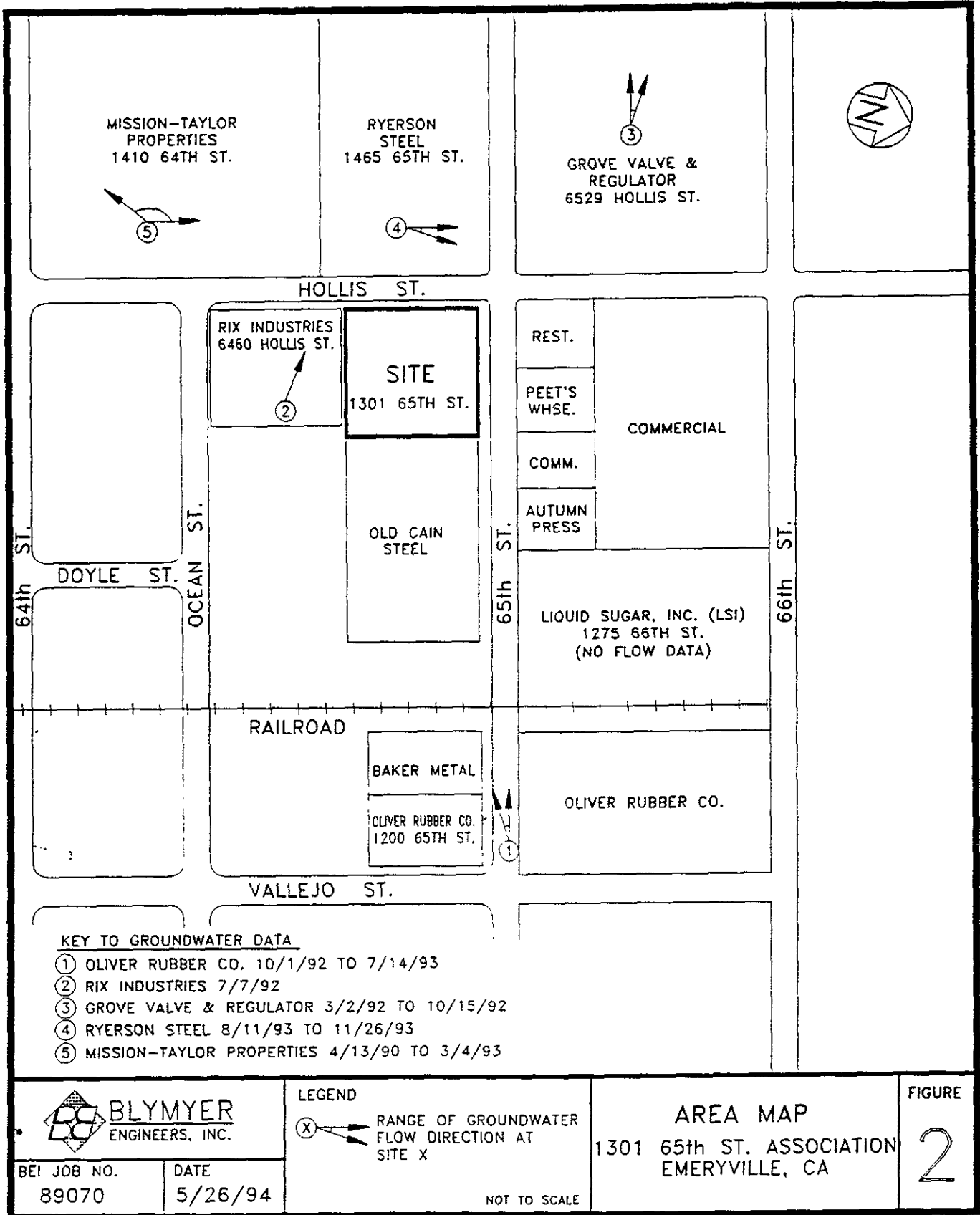
1301 65th ST. ASSOCIATION  
1301 65th ST.  
EMERYVILLE, CA

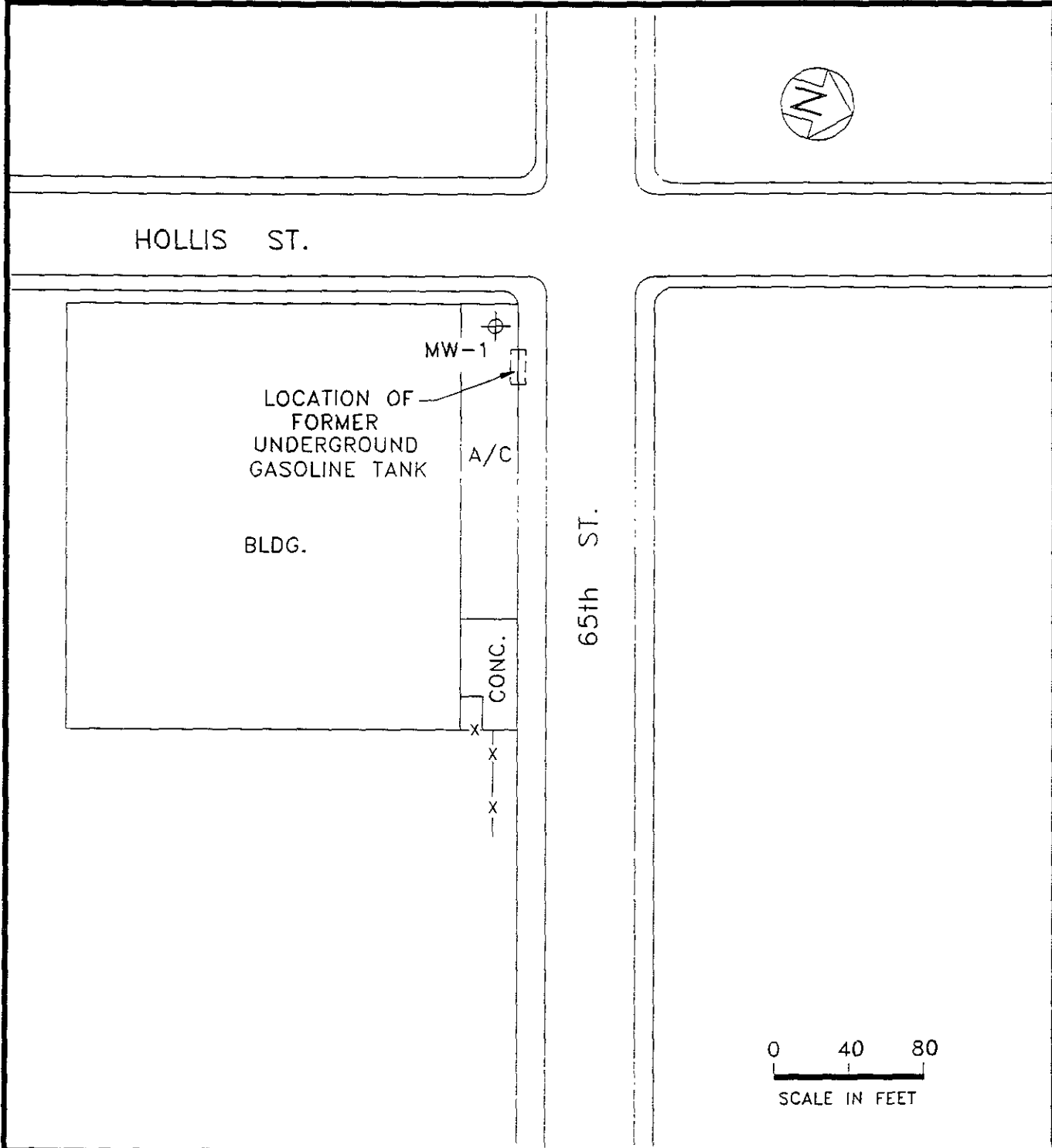
FIGURE


7

BEI JOB NO. 89070

DATE 5/24/94






 **BLMYER**  
ENGINEERS, INC.

|                      |                 |
|----------------------|-----------------|
| BEI JOB NO.<br>89070 | DATE<br>5/24/94 |
|----------------------|-----------------|

LEGEND

 MONITORING WELL

SITE PLAN  
1301 65th ST. ASSOCIATION  
EMERYVILLE, CA

FIGURE  
**3**

APPENDIX A  
WELL PURGING AND SAMPLING DATA FORM, AUGUST 2, 1994  
LABORATORY REPORT, NET, AUGUST 16, 1994

# Well Purging and Sampling Data

|             |        |                 |       |                 |          |
|-------------|--------|-----------------|-------|-----------------|----------|
| Date        | 8/2/94 | Project Number  | 89070 | Project Name    | Peterson |
| Well Number | MW-1   | Boring Diameter | N/A   | Casing Diameter | 2"       |

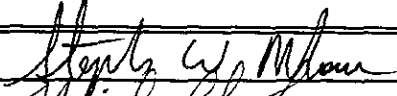
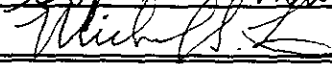
| Column of Liquid in Well |           | Volume to be Removed       |                |
|--------------------------|-----------|----------------------------|----------------|
| Depth to product         | N/A       | Gallons per foot of casing | = 0.17 gal/ft. |
| Depth to water           | 3.46 ft.  | Column of water            | x 18.89 ft.    |
| Total depth of well      | 22.35 ft. | Volume of casing           | = 3.2 gal.     |
| Column of water          | 18.89 ft. | No. of volumes to remove   | x 3            |
|                          |           | Total volume to remove     | = 9.6 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   | Slightly silty, red color, no odor |

| Field Analysis        | Initial                                     | During |       | Final |
|-----------------------|---|--------|-------|-------|
| Time                  | 10:57                                       | 11:04  | 11:15 | 11:25 |
| Temperature (F)       | 71.3  | 67.0   | 66.2  | 66.7  |
| Conductivity (us/cm)  | 1860  | 2030   | 2020  | 2010  |
| pH                    | 7.80  | 7.38   | 7.34  | 7.36  |
| Method of measurement | Hydac meter                                 |        |       |       |
| Total volume purged   | 9.75 gal.                                   |        |       |       |
| Comments              | Sampled with disposable polyethylene bailer |        |       |       |

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

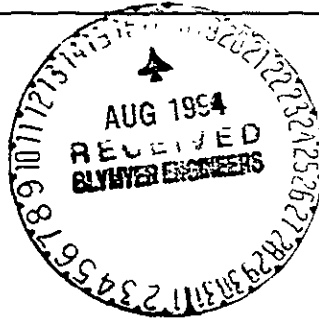
|   |        |
|---|--------|
| Signed/Sampler  | Date   |
|  | 8/2/94 |
| Signed/Reviewer   | Date   |
|  | 8/5/94 |



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



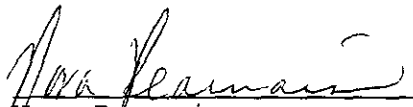
Date: 08/16/1994  
NET Client Acct. No: 49500  
NET Pacific Job No: 94.03383  
Received: 08/03/1994


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:

  
Nora Pearmain  
Project Coordinator

  
Jim Hoch  
Operations Manager

Enclosure (s)





Client Acct: 49500  
Client Name: Blymyer Engineers, Inc  
NET Job No: 94.03383

Date: 08/16/1994  
ELAP Certificate: 1386  
Page: 2

Ref: Peterson/Emeryville, CA Job No. 89070

SAMPLE DESCRIPTION: MW-1  
Date Taken: 08/02/1994  
Time Taken: 11:40  
NET Sample No: 210854

| Parameter                 | Results | Flags | Reporting Limit | Units  | Method | Date Extracted | Date Analyzed |
|---------------------------|---------|-------|-----------------|--------|--------|----------------|---------------|
| TPH (Gas/BTEX,Liquid)     |         |       |                 |        |        |                |               |
| METHOD 5030/M8015         | --      |       |                 |        |        |                | 08/13/1994    |
| DILUTION FACTOR*          | 1       |       |                 |        |        |                | 08/13/1994    |
| as Gasoline               | ND **   |       | 0.05            | mg/L   | 5030   |                | 08/13/1994    |
| METHOD 8020 (GC,Liquid)   | --      |       |                 |        |        |                | 08/13/1994    |
| Benzene                   | 31      |       | 0.5             | ug/L   | 8020   |                | 08/13/1994    |
| Toluene                   | ND      |       | 0.5             | ug/L   | 8020   |                | 08/13/1994    |
| Ethylbenzene              | 3.4     |       | 0.5             | ug/L   | 8020   |                | 08/13/1994    |
| Xylenes (Total)           | 2.7     |       | 0.5             | ug/L   | 8020   |                | 08/13/1994    |
| SURROGATE RESULTS         | --      |       |                 |        |        |                | 08/13/1994    |
| Bromofluorobenzene (SURR) | 92      |       |                 | % Rec. | 5030   |                | 08/13/1994    |

\*\* Note: This sample was positive at 1.4 mg/L quantified against a gasoline standard.  
The positive result has an atypical pattern for Gasoline analysis.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Acct: 49500  
Client Name: Blymyer Engineers, Inc  
NET Job No: 94.03383

Date: 08/16/1994  
ELAP Certificate: 1386  
Page: 3

Ref: Peterson/Emeryville, CA Job No. 89070

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

| Parameter                 | CCV        | CCV          | CCV             | Units  | Date Analyzed | Analyst Initials |
|---------------------------|------------|--------------|-----------------|--------|---------------|------------------|
|                           | Standard   | Standard     | Standard        |        |               |                  |
|                           | % Recovery | Amount Found | Amount Expected |        |               |                  |
| TPH (Gas/BTEX, Liquid)    |            |              |                 |        |               |                  |
| as Gasoline               | 103.0      | 1.03         | 1.00            | mg/L   | 08/13/1994    | lss              |
| Benzene                   | 95.4       | 4.77         | 5.00            | ug/L   | 08/13/1994    | lss              |
| Toluene                   | 98.6       | 4.93         | 5.00            | ug/L   | 08/13/1994    | lss              |
| Ethylbenzene              | 99.4       | 4.97         | 5.00            | ug/L   | 08/13/1994    | lss              |
| Xylenes (Total)           | 101.3      | 15.2         | 15.0            | ug/L   | 08/13/1994    | lss              |
| Bromofluorobenzene (SURR) | 92.0       | 92           | 100             | % Rec. | 08/13/1994    | lss              |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Acct: 49500  
Client Name: Blymyer Engineers, Inc  
NET Job No: 94.03383

Date: 08/16/1994  
ELAP Certificate: 1386  
Page: 4

Ref: Peterson/Emeryville, CA Job No. 89070

## METHOD BLANK REPORT

| Parameter                 | Method | Reporting | Units  | Date       | Analyst  |
|---------------------------|--------|-----------|--------|------------|----------|
|                           | Blank  |           |        | Analyzed   | Initials |
|                           | Amount | Limit     |        |            |          |
|                           | Found  |           |        |            |          |
| TPH (Gas/BTXE, Liquid)    |        |           |        |            |          |
| as Gasoline               | ND     | 0.05      | mg/L   | 08/13/1994 | lss      |
| Benzene                   | ND     | 0.5       | ug/L   | 08/13/1994 | lss      |
| Toluene                   | ND     | 0.5       | ug/L   | 08/13/1994 | lss      |
| Ethylbenzene              | ND     | 0.5       | ug/L   | 08/13/1994 | lss      |
| Xylenes (Total)           | ND     | 0.5       | ug/L   | 08/13/1994 | lss      |
| Bromofluorobenzene (SURR) | 85     |           | % Rec. | 08/13/1994 | lss      |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Acct: 49500  
Client Name: Blymyer Engineers, Inc  
NET Job No: 94.03383

Date: 08/16/1994  
ELAP Certificate: 1386  
Page: 5

Ref: Peterson/Emeryville, CA Job No. 89070

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

| Parameter              | Matrix Spike        |                  |     | Spike Amount | Sample Conc. | Matrix Spike Dup.  |                 | Units | Date Analyzed | Analyst Initials |
|------------------------|---------------------|------------------|-----|--------------|--------------|--------------------|-----------------|-------|---------------|------------------|
|                        | Matrix Spike % Rec. | Spike Dup % Rec. | RPD |              |              | Matrix Spike Conc. | Spike Dup Conc. |       |               |                  |
| TPH (Gas/BTEX, Liquid) |                     |                  |     |              |              |                    |                 |       |               |                  |
| as Gasoline            | 101.0               | 98.0             | 2.9 | 1.00         | ND           | 1.01               | 0.98            | mg/L  | 08/13/1994    | lss              |
| Benzene                | 94.7                | 94.2             | 0.5 | 36.0         | ND           | 34.1               | 33.9            | ug/L  | 08/13/1994    | lss              |
| Toluene                | 97.6                | 97.1             | 0.5 | 98.8         | ND           | 96.4               | 95.9            | ug/L  | 08/13/1994    | lss              |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
- dw : Result expressed as dry weight.
- 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 the applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- 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., Rev. 1, December 1987.

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

Revised September, 1993

abb.93



## CHAIN OF CUSTODY RECORD

1720

| JOB #                |      | PROJECT 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 | TURNAROUND TIME: <u>STAT</u> DAY(S) | REMARKS: |
|----------------------|------|-----------------------|------|----------------------|--|-----------------|--|------------------------------|--------------------|-------------------------|------------------|---------------------|------|-------------------------------------|----------|
| SAMPLERS (SIGNATURE) |      |                       |      |                      |  |                 |  |                              |                    |                         |                  |                     |      |                                     |          |
| DATE                 | TIME | COMP                  | GRAB | SAMPLE NAME/LOCATION |  |                 |  |                              |                    |                         |                  |                     |      |                                     |          |
| 8/2/94               | 1140 |                       | X    | MCW-1                |  | 3               | X  |                              |                    |                         |                  |                     |      |                                     |          |

(8/2/94) [Signature] seal

|                              |             |   |                              |  |                          |  |  |
|------------------------------|-------------|---|------------------------------|--|--------------------------|--|--|
| REQUESTED BY: Mike Lewis     |             |   |                              | RESULTS AND INVOICE TO: Blymyer Engineers, Inc |                          |  |  |
| RELINQUISHED BY: (SIGNATURE) | DATE / TIME | RECEIVED BY: (SIGNATURE)                | RELINQUISHED BY: (SIGNATURE) | DATE / TIME                                    | RECEIVED BY: (SIGNATURE) |  |  |
| [Signature]                  | 8/2/94 1312 | [Signature]                             | [Signature]                  | 8/2/94 16:30                                   | [Signature]              |  |  |
| RELINQUISHED BY: (SIGNATURE) | DATE / TIME | RECEIVED FOR LABORATORY BY: (SIGNATURE) | DATE / TIME                  | REMARKS:                                       |                          |  |  |
|                              |             | [Signature] via NCS                     | 8/3/94 08:30                 | NET cooler temp. 4.4°C                         |                          |  |  |

APPENDIX B  
WELL PURGING AND SAMPLING DATA FORM, AUGUST 25, 1994  
LABORATORY REPORT, NET, SEPTEMBER 8, 1994

## Well Purging and Sampling Data

|             |         |                 |       |                 |          |
|-------------|---------|-----------------|-------|-----------------|----------|
| Date        | 8/25/94 | Project Number  | 89070 | Project Name    | Peterson |
| 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           | 3.58 ft.  | Column of water            | x 18.77 ft.    |
| Total depth of well      | 22.35 ft. | Volume of casing           | = 3.2 gal.     |
| Column of water          | 18.77 ft. | No. of volumes to remove   | x 3            |
|                          |           | Total volume to remove     | = 9.6 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                              | 09:41   | 09:48  | 09:55 | 10:03 |
| Temperature (F)                   | 65.2    | 66.8   | 65.7  | 66.1  |
| Conductivity (us/cm)              | 1990    | 2010   | 1970  | 1990  |
| pH                                | 6.70    | 6.60   | 6.46  | 6.51  |
| Method of measurement Hydac meter |         |        |       |       |
| Total volume purged 9.75 gal.     |         |        |       |       |
| Comments                          |         |        |       |       |

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

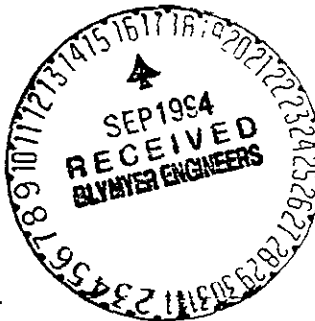
|                 |                       |
|-----------------|-----------------------|
| Signed/Sampler  | <i>Steph W. Moore</i> |
| Signed/Reviewer | <i>Michelle L. Z</i>  |
| Date            | 8/25/94               |
| Date            | 8/25/94               |



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Santa Rosa Division  
435 Tesconi Circle  
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Mike Lewis  
Blymyer Engineers, Inc  
1829 Clement Ave  
Alameda, CA 94501



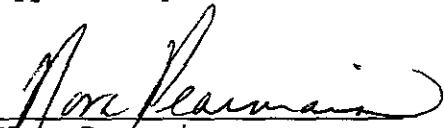
Date: 09/08/1994  
NET Client Acct. No: 49500  
NET Pacific Job No: 94.03828  
Received: 08/26/1994  
Revised: 09/12/1994

Client Reference Information

Peterson/Emeryville, 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:

  
Nora Pearmain  
Project Coordinator

  
Jim Hoch  
Operations Manager

Enclosure(s)







Client Name: Blymyer Engineers, Inc  
 Client Acct: 49500  
 NET Job No: 94.03828

Date: 09/08/1994  
 ELAP Cert: 1386  
 Page: 2

Ref: Peterson/Emeryville, Job No. 89070

SAMPLE DESCRIPTION: MW-1  
 Date Taken: 08/25/1994  
 Time Taken: 10:30  
 NET Sample No: 213008

| Parameter                 | Results | Flags | Reporting |        | Method | Date      | Date       |
|---------------------------|---------|-------|-----------|--------|--------|-----------|------------|
|                           |         |       | Limit     | Units  |        | Extracted | Analyzed   |
| TPH (Gas/BTEX, Liquid)    |         |       |           |        |        |           |            |
| METHOD 5030/M8015         | --      |       |           |        |        |           | 09/07/1994 |
| DILUTION FACTOR*          | 1       |       |           |        |        |           | 09/07/1994 |
| as Gasoline               | ND      |       | 0.05      | mg/L   | 5030   |           | 09/07/1994 |
| METHOD 8020 (GC, Liquid)  | --      |       |           |        |        |           | 09/07/1994 |
| Benzene                   | 13      |       | 0.5       | ug/L   | 8020   |           | 09/07/1994 |
| Toluene                   | ND      |       | 0.5       | ug/L   | 8020   |           | 09/07/1994 |
| Ethylbenzene              | ND      |       | 0.5       | ug/L   | 8020   |           | 09/07/1994 |
| Xylenes (Total)           | ND      |       | 0.5       | ug/L   | 8020   |           | 09/07/1994 |
| SURROGATE RESULTS         | --      |       |           |        |        |           | 09/07/1994 |
| Bromofluorobenzene (SURR) | 72      |       |           | % Rec. | 5030   |           | 09/07/1994 |

GL : The positive result of 2.1 mg/L quantified as Gasoline appears to be a lighter hydrocarbon than gasoline.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blymyer Engineers, Inc  
Client Acct: 49500  
NET Job No: 94.03828

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## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

| Parameter                 | CCV             | CCV             | CCV             | Units  | Date Analyzed | Analyst Initials |
|---------------------------|-----------------|-----------------|-----------------|--------|---------------|------------------|
|                           | Standard Amount | Standard Amount | Standard Amount |        |               |                  |
|                           | % Recovery      | Found           | Expected        |        |               |                  |
| TPH (Gas/BTXE,Liquid)     |                 |                 |                 |        |               |                  |
| as Gasoline               | 101.0           | 1.01            | 1.00            | mg/L   | 09/07/1994    | lss              |
| Benzene                   | 106.8           | 5.34            | 5.00            | ug/L   | 09/07/1994    | lss              |
| Toluene                   | 108.6           | 5.43            | 5.00            | ug/L   | 09/07/1994    | lss              |
| Ethylbenzene              | 108.8           | 5.44            | 5.00            | ug/L   | 09/07/1994    | lss              |
| Xylenes (Total)           | 105.9           | 15.88           | 15.0            | ug/L   | 09/07/1994    | lss              |
| Bromofluorobenzene (SURR) | 95.0            | 95              | 100             | % Rec. | 09/07/1994    | lss              |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Blymyer Engineers, Inc  
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## METHOD BLANK REPORT

| Parameter                 | Method | Reporting | Units  | Date       | Analyst  |
|---------------------------|--------|-----------|--------|------------|----------|
|                           | Blank  |           |        | Amount     | Analyzed |
|                           | Found  | Limit     |        |            |          |
| TPH (Gas/BTXE,Liquid)     |        |           |        |            |          |
| as Gasoline               | ND     | 0.05      | mg/L   | 09/07/1994 | lss      |
| Benzene                   | ND     | 0.5       | ug/L   | 09/07/1994 | lss      |
| Toluene                   | ND     | 0.5       | ug/L   | 09/07/1994 | lss      |
| Ethylbenzene              | ND     | 0.5       | ug/L   | 09/07/1994 | lss      |
| Xylenes (Total)           | ND     | 0.5       | ug/L   | 09/07/1994 | lss      |
| Bromofluorobenzene (SURR) | 91     |           | % Rec. | 09/07/1994 | lss      |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

| Parameter              | Matrix Spike |        | RPD | Spike Amount | Sample Conc. | Matrix Spike |       | Units | Date Analyzed | Analyst Initials |
|------------------------|--------------|--------|-----|--------------|--------------|--------------|-------|-------|---------------|------------------|
|                        | % Rec.       | % Rec. |     |              |              | Conc.        | Conc. |       |               |                  |
| TPH (Gas/BTXE, Liquid) |              |        |     |              |              |              |       |       |               |                  |
| as Gasoline            | 96.0         | 100.0  | 4.0 | 1.00         | ND           | 0.96         | 1.00  | mg/L  | 09/07/1994    | lss              |
| Benzene                | 94.9         | 101.5  | 6.6 | 33.1         | 1.0          | 32.4         | 34.6  | ug/L  | 09/07/1994    | lss              |
| Toluene                | 94.3         | 99.4   | 5.3 | 97.2         | ND           | 91.7         | 96.6  | ug/L  | 09/07/1994    | lss              |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



## 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. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
- dw : Result expressed as dry weight.
- 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 the applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- 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., Rev. 1, December 1987.

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

