



Texaco Refining  
and Marketing Inc

108 Cutting Boulevard  
Richmond CA 94707

ENVIRONMENTAL  
REGISTRATION  
95 JUN 28 PM 2:36

June 23, 1995

- ① utility trench investigation
- ② Semi annual results of VES.

**ENV - STUDIES, SURVEYS, & REPORTS**  
930 Springtown Blvd., Livermore, California

Ms. Eva Chu  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway, Fl. 2  
Alameda, CA 94502-6577

Dear Ms. Chu:

This letter presents the results of groundwater monitoring and sampling conducted by Blaine Tech Services, Inc. on May 9, 1995, at the site referenced above (see Plate 1, Site Vicinity Map). Based on groundwater level measurements, the areal hydraulic gradient was estimated to be north-northeast (see Plate 2, Groundwater Gradient Map) at 0.04 ft. per ft. The gradient map has been reviewed by a registered professional. TPHg and benzene concentrations are shown on Plate 3. Tables 1 and 2 list historical groundwater monitoring data and analytical results, respectively. As requested by Alameda County Department of Environmental Health, monitoring wells MW-2, MW-4, MW-6, and MW-8 are sampled semi-annually in February and August; monitoring wells MW-1, MW-3, MW-5, MW-A, and MW-B are sampled quarterly; and monitoring wells MW-A, MW-B, and MW-1 through MW-8 are gauged quarterly.

The certified analytical report, chain-of-custody, field data sheets, bill of lading, and quarterly summary report are in the Appendix. Texaco Environmental Services' Standard Operating Procedures may be found in Texaco's fourth quarter, 1994 monitoring report.

If you have any questions or comments regarding this site, please call the Texaco Environmental Services' site Project Coordinator, Ms. Karen Petryna at (510) 236-9139.

Best Regards,

Rebecca Digerness  
Environmental Assistant

Karen E. Petryna  
Engineer  
Texaco Environmental Services

RBD:hs  
C:\QMR\930S\QMR.LET

Enclosures

cc: Mr. Brian Garber - GTI, Sacramento(Maps Only)

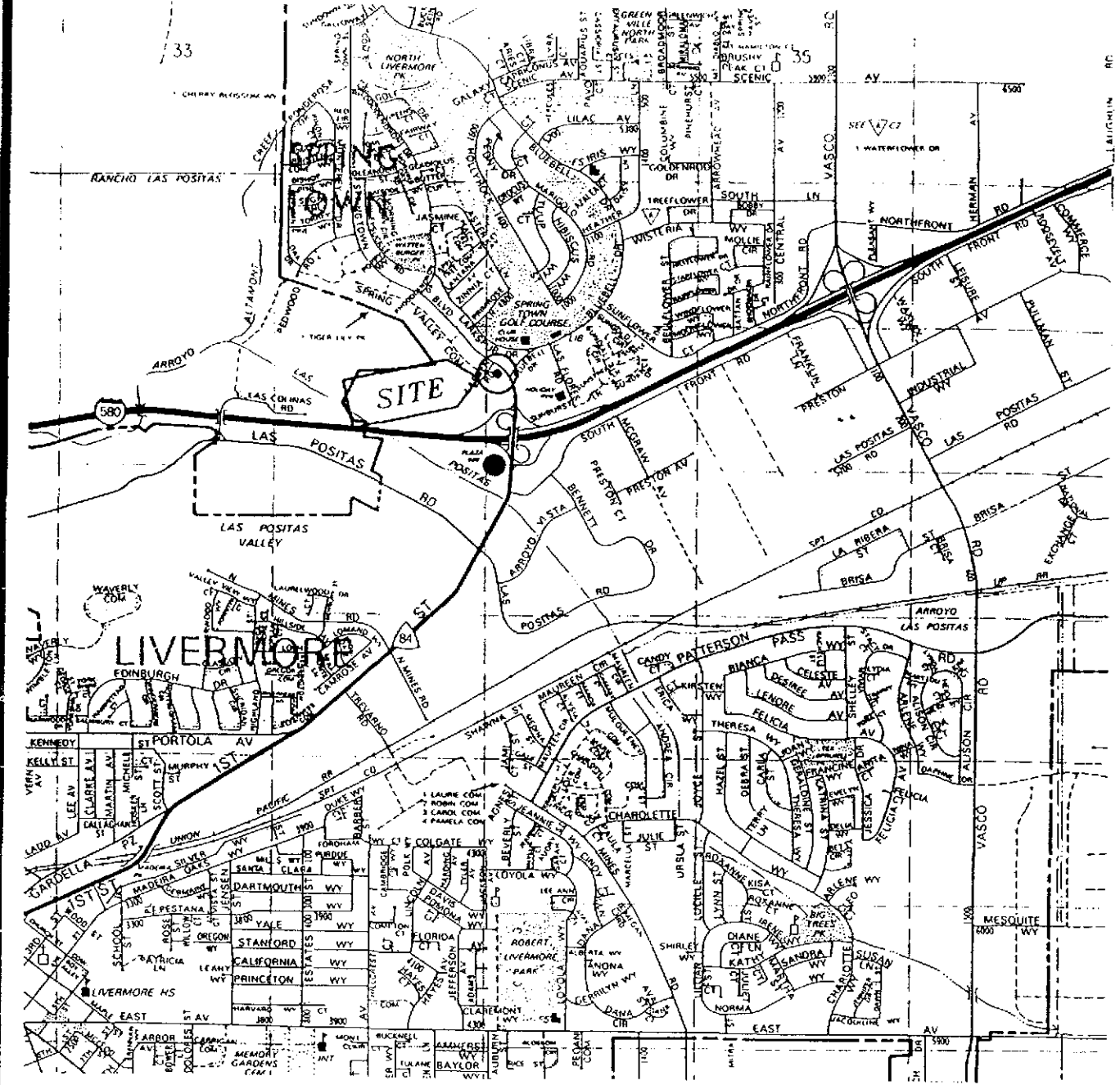
Mr. Robert Vasquez  
The Southland Corporation

RAOFile-UCPFile (w/enclosures) RRZielinski (w/o enclosures)

PR: KEP

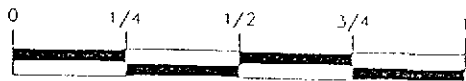
ENVIRONMENTAL  
REGISTRATION  
95 JUN 28 PM 2:36

**GROUNDWATER MONITORING AND SAMPLING**  
**Second Quarter, 1995**  
**at the**  
**Former Texaco Service Station**  
**930 Springtown Boulevard**  
**Livermore, California**



SOURCE:

1993 THE THOMAS GUIDE  
ALAMEDA COUNTY, PAGE 51 (C3)



MILE

1" = 2200'



**TEXACO**

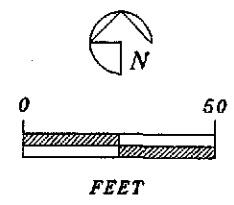
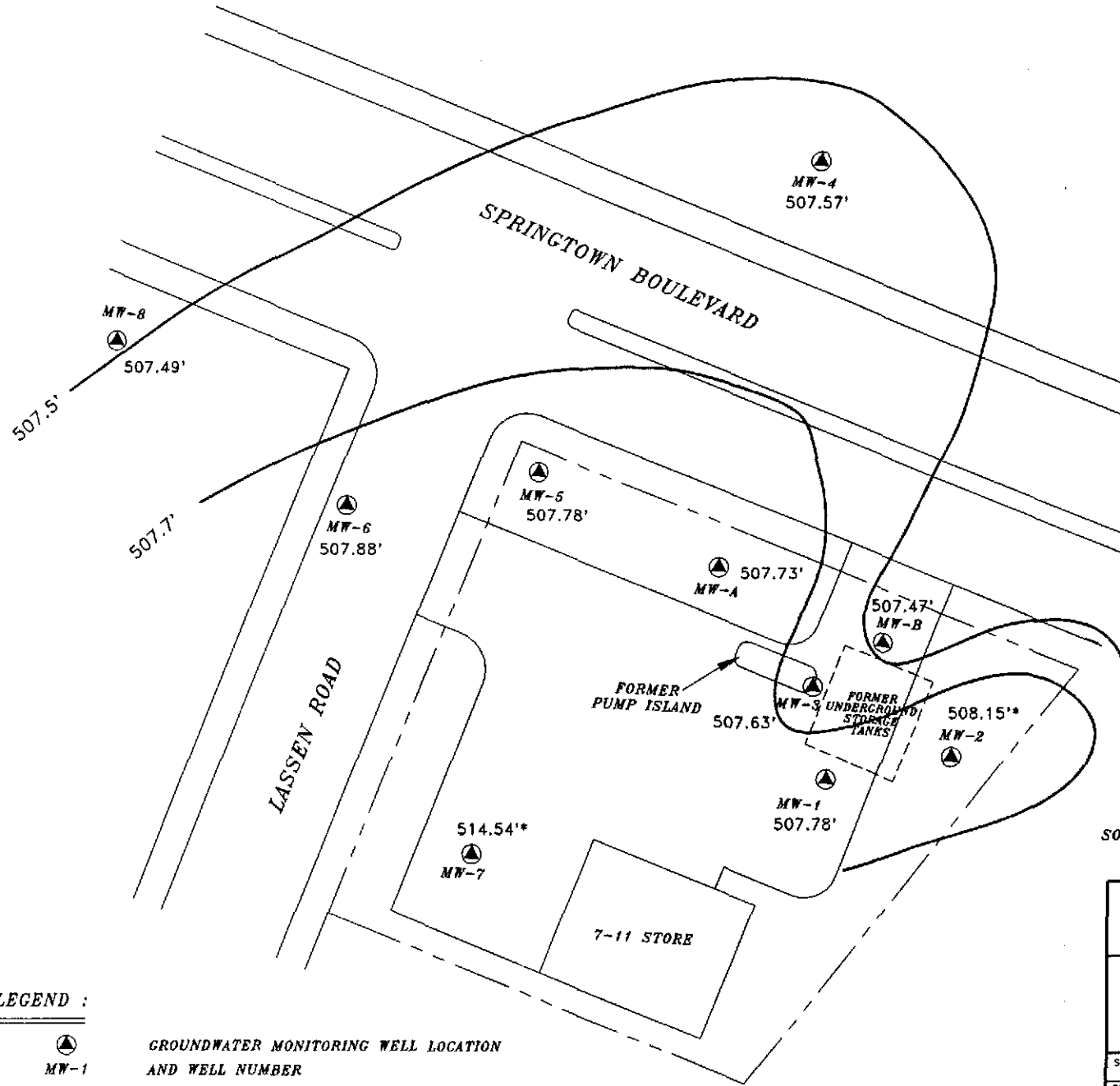
REFINING AND MARKETING, INC.  
TEXACO ENVIRONMENTAL SERVICES

PLATE 1

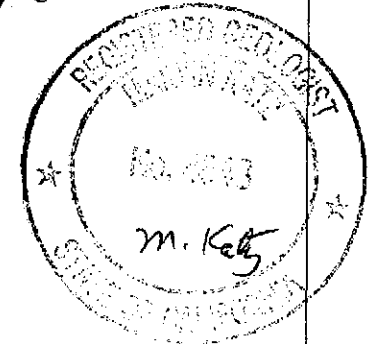
SITE VICINITY MAP

FORMER TEXACO SERVICE STATION

930 SPRINGTOWN BLVD. / LASSEN RD.,  
LIVERMORE, CALIFORNIA



APPROXIMATE  
GROUNDWATER  
GRADIENT

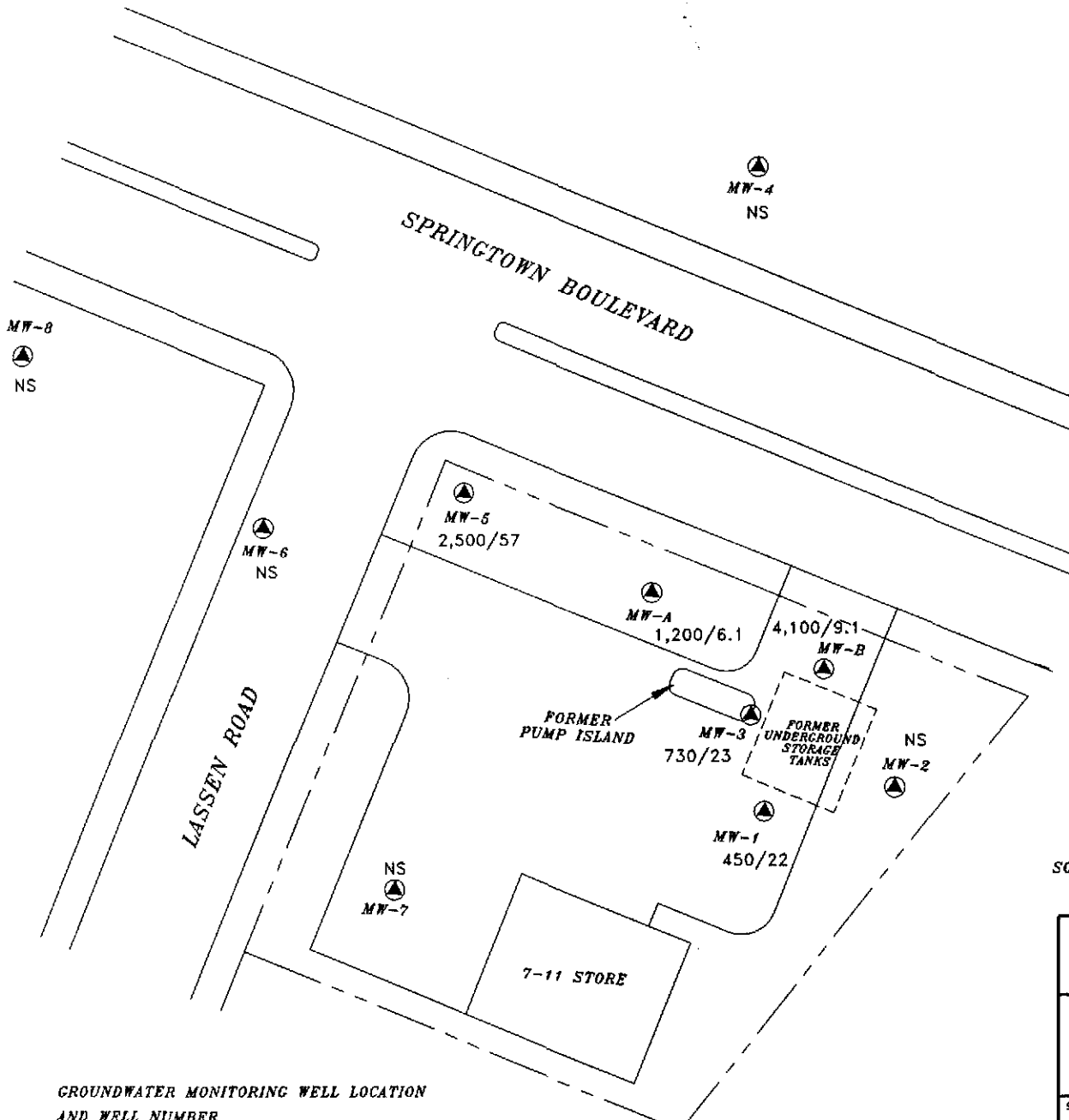
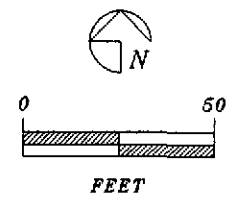


SOURCE : MATTESON ENGINEERING CONDUCTED  
SURVEY ON 08/04/1994

**LEGEND :**

- GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- GROUNDWATER CONTOUR LINE
- 514.54' GROUNDWATER ELEVATION (ABOVE MSL) \* ANOMALOUS WELL

|   |                          |            |             |
|---|--------------------------|------------|-------------|
| <br><b>TEXACO</b><br>REFINING AND MARKETING, INC.<br>ENVIRONMENTAL SERVICES   |                          |            |             |
| PLATE 2: GROUNDWATER GRADIENT MAP<br>(05/09/1995)<br>FORMER TEXACO SERVICE STATION<br>930 SPRINGTOWN BLVD. / LASSEN RD.,<br>LIVERMORE, CALIFORNIA |                          |            |             |
| SCALE   | 1" = 50'-0"              | LOCATION # | 61-857-1050 |
| DRAWN BY  | AMA                      | DATE       | 06/23/1995  |
| CHECKED BY  | RD                       | DATE       | 06/23/1995  |
| DRAWING NO.   | (LIVERMORE) ST-LA-LI.DWG |            |             |



SOURCE : MATTESON ENGINEERING CONDUCTED SURVEY ON 08/04/1994



**TEXACO**  
REFINING AND MARKETING, INC.  
ENVIRONMENTAL SERVICES

PLATE 3: TPHg/BENZENE CONCENTRATION IN GROUNDWATER (08/09/1986)

FORMER TEXACO SERVICE STATION  
930 SPRINGTOWN BLVD. / LASSEN RD.,  
LIVERMORE, CALIFORNIA

|             |                          |            |             |
|-------------|--------------------------|------------|-------------|
| SCALE       | 1" = 50'-0"              | LOCATION # | 61-857-1050 |
| DRAWN BY    | AMA                      | DATE       | 06/23/1995  |
| CHECKED BY  | RD                       | DATE       | 06/23/1995  |
| DRAWING NO. | (LIVERMORE) ST-LA-LI.DWG |            |             |

**LEGEND :**

- GROUNDWATER MONITORING WELL LOCATION AND WELL NUMBER
- 450/22 TPHg/BENZENE CONCENTRATION IN GROUNDWATER (ppb)
- NS NOT SAMPLED

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Gauged | Top of Casing Elevation (feet, MSL) | Depth to Water (feet, TOC) | Elevation of Groundwater (feet, MSL) | Floating Product |
|-------------|-------------|-------------------------------------|----------------------------|--------------------------------------|------------------|
| MW-A        | 1/10/91     | 519.85                              |                            |                                      |                  |
|             | 1/2/92      |                                     | 13.61                      | 506.24                               | ---              |
|             | 4/2/92      |                                     | 12.44                      | 507.41                               | ---              |
|             | 7/21/92     |                                     | 13.35                      | 506.50                               | ---              |
|             | 10/9/92     |                                     | 12.92                      | 506.93                               | SD               |
|             | 1/11/93     |                                     | 11.78                      | 508.07                               | SD               |
|             | 5/5/93      |                                     | 11.39                      | 508.46                               | SD               |
|             | 8/9/93      |                                     | 12.80                      | 507.05                               | SD               |
|             | 10/14/93    |                                     | 13.48                      | 506.37                               | SD               |
|             | 1/24/94     |                                     | 12.74                      | 507.11                               | SD               |
|             | 5/31/94     |                                     | 12.28                      | 507.57                               | ---              |
|             | 8/31/94     | 520.10 *                            | 13.20                      | 506.90                               | SD               |
|             | 11/2/94     |                                     | 13.15                      | 506.95                               | SD               |
|             | 2/20/95     |                                     | 11.71                      | 508.39                               | ---              |
|             | 5/9/95      |                                     | 12.37                      | 507.73                               | ---              |
| MW-B        | 1/10/91     | 518.16                              |                            |                                      |                  |
|             | 1/2/92      |                                     | 11.27                      | 506.89                               | ---              |
|             | 4/2/92      |                                     | 10.18                      | 507.98                               | ---              |
|             | 7/21/92     |                                     | 11.27                      | 506.89                               | ---              |
|             | 10/9/92     |                                     | 11.64                      | 506.52                               | SD               |
|             | 1/11/93     |                                     | 9.65                       | 508.51                               | SD               |
|             | 5/5/93      |                                     | 9.28                       | 508.88                               | SD               |
|             | 8/9/93      |                                     | 11.02                      | 507.14                               | SD               |
|             | 10/14/93    |                                     | 11.34                      | 506.82                               | SD               |
|             | 1/24/94     |                                     | 10.54                      | 507.62                               | SD               |
|             | 5/31/94     |                                     | 10.19                      | 507.97                               | ---              |
|             | 8/31/94     | 518.05 *                            | 10.98                      | 507.07                               | SD               |
|             | 11/2/94     |                                     | 10.90                      | 507.15                               | SD               |
|             | 2/20/95     |                                     | 9.47                       | 508.58                               | ---              |
|             | 5/9/95      |                                     | 10.58                      | 507.47                               | ---              |

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Gauged | Top of Casing Elevation (feet, MSL) | Depth to Water (feet, TOC) | Elevation of Groundwater (feet, MSL) | Floating Product |
|-------------|-------------|-------------------------------------|----------------------------|--------------------------------------|------------------|
| MW-3        |             | 519.30                              |                            |                                      |                  |
|             | 1/10/91     |                                     |                            |                                      |                  |
|             | 1/2/92      |                                     | 12.87                      | 506.43                               | ---              |
|             | 4/2/92      |                                     | 11.97                      | 507.33                               | ---              |
|             | 7/21/92     |                                     | 12.60                      | 506.70                               | ---              |
|             | 10/9/92     |                                     | 12.93                      | 506.37                               | ---              |
|             | 1/11/93     |                                     | 11.16                      | 508.14                               | ---              |
|             | 5/5/93      |                                     | 10.72                      | 508.58                               | ---              |
|             | 8/9/93      |                                     | 12.34                      | 506.96                               | ---              |
|             | 10/14/93    |                                     | 12.71                      | 506.59                               | ---              |
|             | 1/24/94     |                                     | 12.03                      | 507.27                               | ---              |
|             | 5/31/94     |                                     | 11.54                      | 507.76                               | ---              |
|             | 8/31/94     | 519.60 *                            | 12.60                      | 507.00                               | ---              |
|             | 11/2/94     |                                     | 12.16                      | 507.44                               | ---              |
|             | 2/20/95     |                                     | 11.05                      | 508.55                               | ---              |
| 5/9/95      |             | 11.97                               | 507.63                     | ---                                  |                  |
| MW-4        |             |                                     |                            |                                      |                  |
|             | 1/10/91     | 518.75                              |                            |                                      |                  |
|             | 1/2/92      |                                     | 12.22                      | 506.53                               | ---              |
|             | 4/2/92      |                                     | 11.03                      | 507.72                               | ---              |
|             | 7/21/92     |                                     | 12.36                      | 506.39                               | ---              |
|             | 10/9/92     |                                     | 12.40                      | 506.35                               | ---              |
|             | 1/11/93     |                                     | 10.72                      | 508.03                               | ---              |
|             | 5/5/93      |                                     | 10.21                      | 508.54                               | ---              |
|             | 8/9/93      |                                     | 12.25                      | 506.50                               | ---              |
|             | 10/14/93    |                                     | 12.58                      | 506.17                               | ---              |
|             | 1/24/94     |                                     | 11.72                      | 507.03                               | ---              |
|             | 5/31/94     |                                     | 11.29                      | 507.46                               | ---              |
|             | 8/31/94     | 518.79 *                            | 12.00                      | 506.79                               | ---              |
|             | 11/2/94     |                                     | 11.96                      | 506.83                               | ---              |
|             | 2/20/95     |                                     | 10.42                      | 508.37                               | ---              |
| 5/9/95      |             | 11.22                               | 507.57                     | ---                                  |                  |

Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Gauged | Top of Casing Elevation (feet, MSL) | Depth to Water (feet, TOC) | Elevation of Groundwater (feet, MSL) | Floating Product |
|-------------|-------------|-------------------------------------|----------------------------|--------------------------------------|------------------|
| MW-5        |             | 520.50                              |                            |                                      |                  |
|             | 1/10/91     |                                     |                            |                                      |                  |
|             | 1/2/92      |                                     | 14.56                      | 505.94                               | ---              |
|             | 4/2/92      |                                     | 13.58                      | 506.92                               | ---              |
|             | 7/21/92     |                                     | 13.77                      | 506.73                               | ---              |
|             | 10/9/92     |                                     | 14.09                      | 506.41                               | ---              |
|             | 1/11/93     |                                     | 12.24                      | 508.26                               | ---              |
|             | 5/5/93      |                                     | 11.90                      | 508.60                               | ---              |
|             | 8/9/93      |                                     | 13.35                      | 507.15                               | ---              |
|             | 10/14/93    |                                     | 13.89                      | 506.61                               | ---              |
|             | 1/24/94     |                                     | 13.32                      | 507.18                               | ---              |
|             | 5/31/94     |                                     | 12.75                      | 507.75                               | ---              |
|             | 8/31/94     | 521.19 *                            | 14.34                      | 506.85                               | ---              |
|             | 11/2/94     |                                     | 14.22                      | 506.97                               | ---              |
|             | 2/20/95     |                                     | 12.78                      | 508.41                               | SD               |
| 5/9/95      |             | 13.41                               | 507.78                     | ---                                  |                  |
| MW-6        |             | 522.26                              |                            |                                      |                  |
|             | 1/10/91     |                                     |                            |                                      |                  |
|             | 1/2/92      |                                     | 16.64                      | 505.62                               | ---              |
|             | 4/2/91      |                                     | 15.61                      | 506.65                               | ---              |
|             | 7/21/92     |                                     | 15.53                      | 506.73                               | ---              |
|             | 10/9/92     |                                     | 15.69                      | 506.57                               | ---              |
|             | 1/11/93     |                                     | Not Monitored              |                                      |                  |
|             | 5/5/93      |                                     | Not Monitored              |                                      |                  |
|             | 8/9/93      |                                     | 14.50                      | 507.76                               | ---              |
|             | 10/14/93    |                                     | Not Monitored              |                                      |                  |
|             | 1/24/94     |                                     | 15.09                      | 507.17                               | ---              |
|             | 5/31/94     |                                     | 14.64                      | 507.62                               | ---              |
|             | 8/31/94     | 522.18 *                            | 15.32                      | 506.86                               | ---              |
|             | 11/2/94     |                                     | 15.32                      | 506.86                               | ---              |
|             | 2/20/95     |                                     | 14.07                      | 508.11                               | ---              |
| 5/9/95      |             | 14.30                               | 507.88                     | ---                                  |                  |



Table 1  
Groundwater Elevation Data  
930 Springtown Boulevard, Livermore, CA

| Well Number                        | Date Gauged | Top of Casing Elevation (feet, MSL) | Depth to Water (feet, TOC) | Elevation of Groundwater (feet, MSL) | Floating Product |     |
|------------------------------------|-------------|-------------------------------------|----------------------------|--------------------------------------|------------------|-----|
| MW-7                               | 1/10/91     | 522.17                              |                            |                                      |                  |     |
|                                    | 1/2/92      |                                     | 11.17                      | 511.00                               | ---              |     |
|                                    | 4/2/92      |                                     | 10.34                      | 511.83                               | ---              |     |
|                                    | 7/21/92     |                                     | 9.02                       | 513.15                               | ---              |     |
|                                    | 10/9/92     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 1/11/93     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 5/5/93      |                                     | Not Monitored              |                                      |                  |     |
|                                    | 8/9/93      |                                     | Not Monitored              |                                      |                  |     |
|                                    | 10/14/93    |                                     | Not Monitored              |                                      |                  |     |
|                                    | 1/24/94     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 5/31/94     |                                     |                            | 9.42                                 | 512.75           | --- |
|                                    | 8/31/94     | 522.19 *                            |                            | 6.84                                 | 515.35           | --- |
|                                    | 11/2/94     |                                     |                            | 6.48                                 | 515.71           | --- |
|                                    | 2/20/95     |                                     |                            | 7.71                                 | 514.48           | --- |
|                                    | 5/9/95      |                                     |                            | 7.65                                 | 514.54           | --- |
| MW-8                               | 1/10/91     | 524.04                              |                            |                                      |                  |     |
|                                    | 1/2/92      |                                     | 18.42                      | 505.62                               | ---              |     |
|                                    | 4/2/92      |                                     | 17.39                      | 506.65                               | ---              |     |
|                                    | 7/21/92     |                                     | 14.02                      | 510.02                               | ---              |     |
|                                    | 10/9/92     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 1/11/93     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 5/5/93      |                                     | Not Monitored              |                                      |                  |     |
|                                    | 8/9/93      |                                     | Not Monitored              |                                      |                  |     |
|                                    | 10/14/93    |                                     | Not Monitored              |                                      |                  |     |
|                                    | 1/24/94     |                                     | Not Monitored              |                                      |                  |     |
|                                    | 5/31/94     |                                     |                            | 19.65                                | 504.39           | --- |
|                                    | 8/31/94     | 524.03 *                            |                            | 17.40                                | 506.63           | --- |
|                                    | 11/2/94     |                                     |                            | 17.38                                | 506.65           | --- |
|                                    | 2/20/95     |                                     |                            | 15.99                                | 508.04           | --- |
|                                    | 5/9/95      |                                     |                            | 16.54                                | 507.49           | --- |
| *Wells resurveyed on 8/4/94        |             |                                     |                            |                                      |                  |     |
| MSL = Mean Sea Level               |             |                                     |                            |                                      |                  |     |
| TOC = Top of Casing                |             |                                     |                            |                                      |                  |     |
| --- = None Present                 |             |                                     |                            |                                      |                  |     |
| SD = Sheen detected in purge water |             |                                     |                            |                                      |                  |     |

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Sampled | TPHg (ppb) | Benzene (ppb) | Toluene (ppb) | Ethyl-benzene (ppb) | Xylenes (ppb) |
|-------------|--------------|------------|---------------|---------------|---------------------|---------------|
| <b>MW-A</b> |              |            |               |               |                     |               |
|             | 1/2/92       | SP         | SP            | SP            | SP                  | SP            |
|             | 4/2/92       | 27,000     | 1,200         | 570           | 1,700               | 2,300         |
|             | 7/21/92      | 57,000     | 1,500         | 1,800         | 2,700               | 7,100         |
|             | 10/9/92      | 56,000     | 2,900         | 2,600         | 4,600               | 12,000        |
|             | 1/11/93      | NS         | NS            | NS            | NS                  | NS            |
|             | 5/5/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 8/9/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 10/14/93     | NS         | NS            | NS            | NS                  | NS            |
|             | 1/24/94      | 1,400,000  | 6,900         | 2,100         | 15,000              | 38,000        |
|             | 5/31/94      | 48,000     | 1,200         | 900           | 1,900               | 4,200         |
|             | 8/31/94      | 24,000     | 140           | 120           | 830                 | 1,500         |
|             | 11/2/94      | 15,000     | 230           | 360           | 1,100               | 1,800         |
|             | 2/20/95      | 12,000     | 290           | 330           | 570                 | 1,300         |
|             | 5/9/95       | 1,200      | 6.1           | 5.9           | 12                  | 15            |
| <b>MW-B</b> |              |            |               |               |                     |               |
|             | 1/2/92       | SP         | SP            | SP            | SP                  | SP            |
|             | 4/2/92       | 1,900      | ND            | 39            | 24                  | 35            |
|             | 7/21/92      | 16,000     | 180           | 1,600         | 270                 | 1,100         |
|             | 10/9/92      | 38,000     | 490           | 8,300         | 1,400               | 5,100         |
|             | 1/11/93      | NS         | NS            | NS            | NS                  | NS            |
|             | 5/5/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 8/9/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 10/14/93     | NS         | NS            | NS            | NS                  | NS            |
|             | 1/24/94      | 23,000     | 110           | 1,700         | 600                 | 1,900         |
|             | 5/31/94      | 13,000     | 780           | 310           | 370                 | 1,400         |
|             | 8/31/94      | 35,000     | 160           | 2,800         | 1,000               | 4,500         |
|             | 11/2/94      | 2,500      | 170           | 3,200         | 1,100               | 4,700         |
|             | 2/20/95      | 10,000     | 46            | 1,400         | 330                 | 1,200         |
|             | 5/9/95       | 4,100      | 9.1           | 47            | 26                  | 30            |

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Sampled | TPHg (ppb) | Benzene (ppb) | Toluene (ppb) | Ethyl-benzene (ppb) | Xylenes (ppb) |
|-------------|--------------|------------|---------------|---------------|---------------------|---------------|
| MW-1        |              |            |               |               |                     |               |
|             | 1/2/92       | 16         | 6             | ND            | ND                  | ND            |
|             | 4/2/92       | ND         | ND            | ND            | ND                  | ND            |
|             | 7/21/92      | <50        | 3.2           | <0.5          | <0.5                | <0.5          |
|             | 10/9/92      | <50        | 8.5           | <0.5          | <0.5                | <0.5          |
|             | 1/11/93      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/5/93       | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 8/9/93       | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 10/14/93     | 440        | 16            | 2.9           | 2.9                 | 11            |
|             | 5/31/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 8/31/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 11/2/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 2/20/95      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/9/95       | 450        | 22            | 25            | 23                  | 100           |
| MW-2        |              |            |               |               |                     |               |
|             | 1/2/92       | ND         | ND            | ND            | ND                  | ND            |
|             | 4/2/91       | ND         | ND            | ND            | ND                  | ND            |
|             | 7/21/92      | NS         | NS            | NS            | NS                  | NS            |
|             | 10/9/92      | NS         | NS            | NS            | NS                  | NS            |
|             | 1/11/93      | NS         | NS            | NS            | NS                  | NS            |
|             | 5/5/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 8/9/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 10/14/93     | NS         | NS            | NS            | NS                  | NS            |
|             | 1/24/94      | NS         | NS            | NS            | NS                  | NS            |
|             | 5/31/94      | NS         | NS            | NS            | NS                  | NS            |
|             | 8/31/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 11/2/94      | NS         | NS            | NS            | NS                  | NS            |
|             | 2/20/95      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/9/95       | NS         | NS            | NS            | NS                  | NS            |

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Sampled | TPHg (ppb) | Benzene (ppb) | Toluene (ppb) | Ethyl-benzene (ppb) | Xylenes (ppb) |
|-------------|--------------|------------|---------------|---------------|---------------------|---------------|
| MW-3        | 1/2/92       | 340        | 0.4           | ND            | ND                  | ND            |
|             | 4/2/92       | 160        | 5             | ND            | 0.3                 | 0.5           |
|             | 7/21/92      | 260        | 1.7           | <0.5          | <0.5                | <0.5          |
|             | 10/9/92      | 88         | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 1/11/93      | 130        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/5/93       | 340        | 1.8           | <0.5          | 1.3                 | <0.5          |
|             | 8/9/93       | 610        | 18            | <0.5          | 2.4                 | 0.9           |
|             | 10/14/93     | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 1/24/94      | 320        | 3.5           | <0.5          | <0.5                | <0.5          |
|             | 5/31/94      | 830        | 11            | 12            | 5.0                 | 1.2           |
|             | 8/31/94      | 660        | 2             | <0.5          | 1                   | <0.5          |
|             | 11/2/94      | 1,500      | 260           | 36            | 34                  | 76            |
|             | 2/20/95      | 410        | 1.2           | 1.9           | 1.4                 | 2.2           |
|             | 5/9/95       | 730        | 23            | 43            | 21                  | 95            |
|             | MW-4         | 1/2/92     | ND            | ND            | ND                  | ND            |
| 4/2/92      |              | ND         | ND            | ND            | ND                  | ND            |
| 7/21/92     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 10/9/92     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 1/11/93     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 5/5/93      |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 8/9/93      |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 10/14/93    |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 1/24/94     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 5/31/94     |              | NS         | NS            | NS            | NS                  | NS            |
| 8/31/94     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 11/2/94     |              | NS         | NS            | NS            | NS                  | NS            |
| 2/20/95     |              | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
| 5/9/95      | NS           | NS         | NS            | NS            | NS                  |               |

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

| Well Number | Date Sampled | TPHg (ppb) | Benzene (ppb) | Toluene (ppb) | Ethyl-benzene (ppb) | Xylenes (ppb) |
|-------------|--------------|------------|---------------|---------------|---------------------|---------------|
| MW-5        |              |            |               |               |                     |               |
|             | 1/2/92       | 1,800      | 74            | 41            | 84                  | 94            |
|             | 4/2/92       | ND         | ND            | ND            | ND                  | ND            |
|             | 7/21/92      | 1,000      | 69            | 16            | 40                  | 31            |
|             | 10/9/92      | 3,400      | 890           | 51            | 110                 | 110           |
|             | 1/11/93      | 15,000     | 460           | 110           | 900                 | 370           |
|             | 5/5/93       | 4,500      | 160           | 19            | 280                 | 110           |
|             | 8/9/93       | 2,300      | 180           | 19            | 130                 | 80            |
|             | 10/14/93     | 2,200      | 160           | 27            | 90                  | 64            |
|             | 1/24/94      | 2,600      | 69            | 11            | 65                  | 25            |
|             | 5/31/94      | 3,100      | 130           | 64            | 140                 | 120           |
|             | 8/31/94      | 600        | 20            | 2.9           | 14                  | 7.1           |
|             | 11/2/94      | 2,300      | 68            | 18            | 52                  | 54            |
|             | 2/20/95      | 12,000     | 130           | <30           | 240                 | 138           |
|             | 5/9/95       | 2,500      | 57            | 60            | 54                  | 37            |
| MW-6        |              |            |               |               |                     |               |
|             | 1/2/92       | 23         | ND            | 0.3           | 0.6                 | 3             |
|             | 4/2/92       | ND         | ND            | ND            | ND                  | ND            |
|             | 7/21/92      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 10/9/92      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 1/11/93      | NS         | NS            | NS            | NS                  | NS            |
|             | 5/5/93       | NS         | NS            | NS            | NS                  | NS            |
|             | 8/9/93       | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 10/14/93     | NS         | NS            | NS            | NS                  | NS            |
|             | 1/24/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/31/94      | NS         | NS            | NS            | NS                  | NS            |
|             | 8/31/94      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 11/2/94      | NS         | NS            | NS            | NS                  | NS            |
|             | 2/20/95      | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|             | 5/9/95       | NS         | NS            | NS            | NS                  | NS            |

Table 2  
Groundwater Analytical Data  
930 Springtown Boulevard, Livermore, CA

| Well Number  | Date Sampled     | TPHg (ppb) | Benzene (ppb) | Toluene (ppb) | Ethyl-benzene (ppb) | Xylenes (ppb) |
|--|------------------|------------|---------------|---------------|---------------------|---------------|
| <b>MW-7</b>  |                  |            |               |               |                     |               |
|  | 1/2/92           | NS         | NS            | NS            | NS                  | NS            |
|  | 4/2/92           | ND         | ND            | ND            | ND                  | ND            |
|  | 7/21/92 - 5/9/95 | NS         | NS            | NS            | NS                  | NS            |
| <b>MW-8</b>  |                  |            |               |               |                     |               |
|  | 1/2/92           | 12,000     | 32            | 980           | 200                 | 760           |
|  | 4/2/92           | ND         | ND            | ND            | ND                  | ND            |
|  | 7/21/92          | NS         | NS            | NS            | NS                  | NS            |
|  | 10/9/93          | NS         | NS            | NS            | NS                  | NS            |
|  | 1/11/93          | NS         | NS            | NS            | NS                  | NS            |
|  | 5/5/93           | NS         | NS            | NS            | NS                  | NS            |
|  | 8/9/93           | NS         | NS            | NS            | NS                  | NS            |
|  | 10/14/93         | NS         | NS            | NS            | NS                  | NS            |
|  | 1/24/94          | NS         | NS            | NS            | NS                  | NS            |
|  | 5/31/94          | NS         | NS            | NS            | NS                  | NS            |
|  | 8/31/94          | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|  | 11/2/94          | NS         | NS            | NS            | NS                  | NS            |
|  | 2/20/95          | <50        | <0.5          | <0.5          | <0.5                | <0.5          |
|  | 5/9/95           | NS         | NS            | NS            | NS                  | NS            |
| NS = Not Sampled   |                  |            |               |               |                     |               |
| ND = None Detected   |                  |            |               |               |                     |               |
| SP = Separate-phase petroleum hydrocarbons                             |                  |            |               |               |                     |               |
| TPHg = Total petroleum hydrocarbons as gasoline                        |                  |            |               |               |                     |               |
| < = Less than the detection limit for the specified method of analysis |                  |            |               |               |                     |               |

801 Western Avenue  
Glendale, CA 91201  
818/247-5737  
Fax: 818/247-9797

LOG NO: G95-05-194

Received: 10 MAY 95

Mailed: **MAY 26 1995**

Ms. Rebecca Digerness  
Texaco Environmental Services  
108 Cutting Boulevard  
Richmond, CA 94804

Purchase Order: 94-1446346+4370

Requisition: 618571050  
Project: FKEP1012L

REPORT OF ANALYTICAL RESULTS

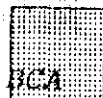
Page 1

AQUEOUS

| SAMPLE DESCRIPTION | DATE SAMPLED | TPH/BTEX (CADHS/8020) |                    |                       |            |              |              |                    |                            |
|--------------------|--------------|-----------------------|--------------------|-----------------------|------------|--------------|--------------|--------------------|----------------------------|
|                    |              |                       | Date Analyzed Date | Dilution Factor Times | TPH-g ug/L | Benzene ug/L | Toluene ug/L | Ethyl-Benzene ug/L | Total Xylenes Isomers ug/L |
| RDL                |              |                       |                    | 1                     | 50         | 0.5          | 0.5          | 0.5                | 0.5                        |
| 1*MWA              | 05/09/95     | 05/18/95              |                    | 1                     | 1200       | 6.1          | 5.9          | 12                 | 15                         |
| 2*MWB              | 05/09/95     | 05/18/95              |                    | 1                     | 4100       | 9.1          | 47           | 26                 | 30                         |
| 3*MW1              | 05/09/95     | 05/16/95              |                    | 1                     | 450        | 22           | 25           | 23                 | 100                        |
| 4*MW3              | 05/09/95     | 05/16/95              |                    | 1                     | 730        | 23           | 43           | 21                 | 95                         |
| 5*MW5              | 05/09/95     | 05/17/95              |                    | 10                    | 2500       | 57           | 60           | 54                 | 37                         |
| 6*EB               | 05/09/95     | 05/17/95              |                    | 1                     | 94         | <0.5         | 0.54         | <0.5               | <0.5                       |
| 7*TB               | 05/09/95     | 05/17/95              |                    | 1                     | <50        | <0.5         | <0.5         | <0.5               | <0.5                       |

Karen Petryna  
930 Springtown Blvd., Livermore  
Alameda County  
The gasoline range organics quantitated in the equipment blank did not display a typical gasoline pattern.  
J. Winter, 5/25/95

*Jane Freemyer*  
Jane Freemyer, Program Manager



| SAMPLES... | SAMPLE DESCRIPTION.. | DETERM.....   | DATE.....<br>ANALYZED | METHOD..... | EQUIP. | BATCH.. | ID.NO |
|------------|----------------------|---------------|-----------------------|-------------|--------|---------|-------|
| 9505194*1  | MWA                  | GAS.BTX.TESNC | 05.18.95              | 8015M.TX    | 516-24 | 957029  | 8658  |
| 9505194*2  | MWB                  | GAS.BTX.TESNC | 05.18.95              | 8015M.TX    | 516-24 | 957209  | 8658  |
| 9505194*3  | MW1                  | GAS.BTX.TESNC | 05.16.95              | 8015M.TX    | 516-20 | 958126  | 8658  |
| 9505194*4  | MW3                  | GAS.BTX.TESNC | 05.16.95              | 8015M.TX    | 516-20 | 958126  | 8658  |
| 9505194*5  | MW5                  | GAS.BTX.TESNC | 05.17.95              | 8015M.TX    | 516-20 | 958126  | 8658  |
| 9505194*6  | EB                   | GAS.BTX.TESNC | 05.17.95              | 8015M.TX    | 516-20 | 958126  | 8658  |
| 9505194*7  | TB                   | GAS.BTX.TESNC | 05.17.95              | 8015M.TX    | 516-20 | 958126  | 8658  |

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Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.



## BC ANALYTICAL

## ORDER QC REPORT FOR G9505194

DATE REPORTED : 05/25/95

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LABORATORY CONTROL STANDARDS  
FOR BATCHES WHICH INCLUDE THIS ORDER

| PARAMETER            | DATE ANALYZED | BATCH NUMBER | LC RESULT | LT RESULT | UNIT | PERCENT RECOVERY |
|----------------------|---------------|--------------|-----------|-----------|------|------------------|
| 1. TPH (8015M/8020)  |               | C5052462*1   |           |           |      |                  |
| Date Analyzed        | 05.20.95      | 957209       | 05/20/95  | 05/20/95  | Date | N/A              |
| Benzene              | 05.20.95      | 957209       | 10.7      | 12.5      | ug/L | 86               |
| Toluene              | 05.20.95      | 957209       | 54.4      | 55.5      | ug/L | 98               |
| Ethylbenzene         | 05.20.95      | 957209       | 12.8      | 12.5      | ug/L | 102              |
| Total Xylene Isomers | 05.20.95      | 957209       | 59.5      | 66.5      | ug/L | 89               |
| TPH (Gasoline Range) | 05.20.95      | 957209       | 786       | 1000      | ug/L | 79               |
| 2. TPH (8015M/8020)  |               | C5052463*1   |           |           |      |                  |
| Date Analyzed        | 05.20.95      | 957209       | 05/20/95  | 05/20/95  | Date | N/A              |
| Benzene              | 05.20.95      | 957209       | 12.9      | 12.5      | ug/L | 103              |
| Toluene              | 05.20.95      | 957209       | 52.3      | 55.5      | ug/L | 94               |
| Ethylbenzene         | 05.20.95      | 957209       | 12.5      | 12.5      | ug/L | 100              |
| Total Xylene Isomers | 05.20.95      | 957209       | 57.5      | 66.5      | ug/L | 86               |
| TPH (Gasoline Range) | 05.20.95      | 957209       | 751       | 1000      | ug/L | 75               |
| 3. TPH (8015M/8020)  |               | C5051970*1   |           |           |      |                  |
| Date Analyzed        | 05.12.95      | 958126       | 05/12/95  | 025/12/   | Date | N/A              |
| Benzene              | 05.12.95      | 958126       | 16.8      | 12.5      | ug/L | 134              |
| Toluene              | 05.12.95      | 958126       | 65.1      | 55.5      | ug/L | 117              |
| Ethylbenzene         | 05.12.95      | 958126       | 13.9      | 12.5      | ug/L | 111              |
| TPH (Gasoline Range) | 05.12.95      | 958126       | 978       | 1000      | ug/L | 98               |
| 4. TPH (8015M/8020)  |               | C5051971*1   |           |           |      |                  |
| Date Analyzed        | 05.12.95      | 958126       | 05/12/95  | 05/12/95  | Date | N/A              |
| Benzene              | 05.12.95      | 958126       | 16.3      | 12.5      | ug/L | 130              |
| Toluene              | 05.12.95      | 958126       | 62.4      | 55.5      | ug/L | 112              |
| Ethylbenzene         | 05.12.95      | 958126       | 13.4      | 12.5      | ug/L | 107              |
| Total Xylene Isomers | 05.12.95      | 958126       | 66.1      | 66.5      | ug/L | 99               |
| TPH (Gasoline Range) | 05.12.95      | 958126       | 932       | 1000      | ug/L | 93               |
| 5. TPH (8015M/8020)  |               | C5052109*1   |           |           |      |                  |
| Date Analyzed        | 05.15.95      | 958126       | 05/15/95  | 05/15/95  | Date | N/A              |
| Benzene              | 05.15.95      | 958126       | 16.7      | 12.5      | ug/L | 134              |
| Toluene              | 05.15.95      | 958126       | 64.0      | 55.5      | ug/L | 115              |
| Ethylbenzene         | 05.15.95      | 958126       | 13.3      | 12.5      | ug/L | 106              |
| Total Xylene Isomers | 05.15.95      | 958126       | 67.9      | 66.5      | ug/L | 102              |
| TPH (Gasoline Range) | 05.15.95      | 958126       | 878       | 1000      | ug/L | 88               |
| 5. TPH (8015M/8020)  |               | C5052601*1   |           |           |      |                  |
| Date Analyzed        | 05.16.95      | 958126       | 05/16/95  | 05/16/95  | Date | N/A              |
| Benzene              | 05.16.95      | 958126       | 16.6      | 12.5      | ug/L | 133              |
| Toluene              | 05.16.95      | 958126       | 65.0      | 55.5      | ug/L | 117              |
| Ethylbenzene         | 05.16.95      | 958126       | 13.7      | 12.5      | ug/L | 110              |
| Total Xylene Isomers | 05.16.95      | 958126       | 68.7      | 66.5      | ug/L | 103              |
| TPH (Gasoline Range) | 05.16.95      | 958126       | 912       | 1000      | ug/L | 91               |

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505194

DATE REPORTED : 05/25/95

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ADDITIONAL LCS PRECISION (DUPLICATES)  
BATCH QC REPORT

| PARAMETER            | SAMPLE NUMBER | DATE ANALYZED | BATCH NUMBER | LC1 RESULT | LC2 RESULT | UNIT | RELATIVE % DIFF |
|----------------------|---------------|---------------|--------------|------------|------------|------|-----------------|
| 1. TPH (8015M/8020)  |               |               |              |            |            |      |                 |
| Date Analyzed        |               | 05.20.95      | 957209       | 05/20/95   | 05/20/95   | Date | N/A             |
| Benzene              |               | 05.20.95      | 957209       | 10.7       | 12.9       | ug/L | 19              |
| Toluene              |               | 05.20.95      | 957209       | 54.4       | 52.3       | ug/L | 4               |
| Ethylbenzene         |               | 05.20.95      | 957209       | 12.8       | 12.5       | ug/L | 2               |
| Total Xylene Isomers |               | 05.20.95      | 957209       | 59.5       | 57.5       | ug/L | 3               |
| TPH (Gasoline Range) |               | 05.20.95      | 957209       | 786        | 751        | ug/L | 5               |
| 2. TPH (8015M/8020)  |               |               |              |            |            |      |                 |
| Date Analyzed        |               | 05.12.95      | 958126       | 05/12/95   | 05/12/95   | Date | N/A             |
| Benzene              |               | 05.12.95      | 958126       | 16.8       | 16.3       | ug/L | 3               |
| Toluene              |               | 05.12.95      | 958126       | 65.1       | 62.4       | ug/L | 4               |
| Ethylbenzene         |               | 05.12.95      | 958126       | 13.9       | 13.4       | ug/L | 4               |
| TPH (Gasoline Range) |               | 05.12.95      | 958126       | 978        | 932        | ug/L | 5               |

BC ANALYTICAL

ORDER QC REPORT FOR G9505194

DATE REPORTED : 05/25/95

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MATRIX QC PRECISION (DUPLICATE SPIKES)  
BATCH QC REPORT

| PARAMETER            | SAMPLE NUMBER | DATE ANALYZED | BATCH NUMBER | MS RESULT | MSD RESULT | UNIT | RELATIVE % DIFF |
|----------------------|---------------|---------------|--------------|-----------|------------|------|-----------------|
| 1. TPH (8015M/8020)  | 9505251*11    |               |              |           |            |      |                 |
| Date Analyzed        |               | 05.20.95      | 957209       | 05/20/95  | 05/20/95   | Date | N/A             |
| Benzene              |               | 05.20.95      | 957209       | 13.0      | 12.2       | ug/L | 6               |
| Toluene              |               | 05.20.95      | 957209       | 52.9      | 51.4       | ug/L | 3               |
| Ethylbenzene         |               | 05.20.95      | 957209       | 13.4      | 12.0       | ug/L | 11              |
| Total Xylene Isomers |               | 05.20.95      | 957209       | 57.2      | 56.9       | ug/L | 1               |
| TPH (Gasoline Range) |               | 05.20.95      | 957209       | 807       | 786        | ug/L | 3               |
| 2. TPH (8015M/8020)  | 9505195*1     |               |              |           |            |      |                 |
| Date Analyzed        |               | 05.15.95      | 958126       | 05/15/95  | 05/15/95   | Date | N/A             |
| Benzene              |               | 05.15.95      | 958126       | 35.5      | 35.1       | ug/L | 1               |
| Toluene              |               | 05.15.95      | 958126       | 75.9      | 76.4       | ug/L | 1               |
| Ethylbenzene         |               | 05.15.95      | 958126       | 25.2      | 22.4       | ug/L | 12              |
| Total Xylene Isomers |               | 05.15.95      | 958126       | 116       | 102        | ug/L | 13              |
| TPH (Gasoline Range) |               | 05.15.95      | 958126       | 1020      | 977        | ug/L | 4               |

## BC ANALYTICAL

ORDER QC REPORT FOR G9505194

DATE REPORTED : 05/25/95

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MATRIX QC ACCURACY (SPIKES)  
BATCH QC REPORT

| PARAMETER            | SAMPLE NUMBER | DATE ANALYZED | BATCH NUMBER | MS %  | MSD % | TRUE RESULT | UNIT |   |
|----------------------|---------------|---------------|--------------|-------|-------|-------------|------|---|
| 1. TPH (8015M/8020)  | 9505251*11    |               |              |       |       |             |      |   |
| Benzene              |               | 05.20.95      | 957209       | 104   | 98    | 12.5        | ug/L |   |
| Toluene              |               | 05.20.95      | 957209       | 95    | 93    | 55.5        | ug/L |   |
| Ethylbenzene         |               | 05.20.95      | 957209       | 107   | 96    | 12.5        | ug/L |   |
| Total Xylene Isomers |               | 05.20.95      | 957209       | 86    | 86    | 66.5        | ug/L |   |
| TPH (Gasoline Range) |               | 05.20.95      | 957209       | 81    | 79    | 1000        | ug/L |   |
| 2. TPH (8015M/8020)  | 9505195*1     |               |              |       |       |             |      |   |
| Benzene              |               | 05.15.95      | 958126       | 128 Q | 125   | 31.9        | ug/L | Q |
| Toluene              |               | 05.15.95      | 958126       | 110   | 111   | 70.4        | ug/L |   |
| Ethylbenzene         |               | 05.15.95      | 958126       | 112   | 90    | 23.7        | ug/L |   |
| Total Xylene Isomers |               | 05.15.95      | 958126       | 108   | 86    | 111         | ug/L |   |
| TPH (Gasoline Range) |               | 05.15.95      | 958126       | 67    | 63    | 1350        | ug/L |   |

## BC ANALYTICAL

## ORDER QC REPORT FOR G9505194

DATE REPORTED : 05/25/95

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METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)  
FOR BATCHES WHICH INCLUDE THIS ORDER

| PARAMETER            | DATE ANALYZED | BATCH NUMBER | BLANK RESULT | RDL | UNIT | METHOD   |
|----------------------|---------------|--------------|--------------|-----|------|----------|
| 1. TPH (8015M/8020)  |               | B5051232*1   |              |     |      |          |
| Date Analyzed        | 05.19.95      | 957209       | 05/19/95     | NA  | Date | 8015M.TX |
| Benzene              | 05.19.95      | 957209       | 0.33         | 0.5 | ug/L | 8015M.TX |
| Toluene              | 05.19.95      | 957209       | 0.21         | 0.5 | ug/L | 8015M.TX |
| Ethylbenzene         | 05.19.95      | 957209       | 0            | 0.5 | ug/L | 8015M.TX |
| Total Xylene Isomers | 05.19.95      | 957209       | 0            | 0.5 | ug/L | 8015M.TX |
| TPH (Gasoline Range) | 05.19.95      | 957209       | 1.5          | 50  | ug/L | 8015M.TX |
| 2. TPH (8015M/8020)  |               | B505978*1    |              |     |      |          |
| Date Analyzed        | 05.12.95      | 958126       | 05/12/95     | NA  | Date | 8015M.TX |
| Benzene              | 05.12.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Toluene              | 05.12.95      | 958126       | 0.25         | 0.5 | ug/L | 8015M.TX |
| Ethylbenzene         | 05.12.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Total Xylene Isomers | 05.12.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| TPH (Gasoline Range) | 05.12.95      | 958126       | 5.7          | 50  | ug/L | 8015M.TX |
| 3. TPH (8015M/8020)  |               | B5051055*1   |              |     |      |          |
| Date Analyzed        | 05.15.95      | 958126       | 05/15/95     | NA  | Date | 8015M.TX |
| Benzene              | 05.15.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Toluene              | 05.15.95      | 958126       | 0.28         | 0.5 | ug/L | 8015M.TX |
| Ethylbenzene         | 05.15.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Total Xylene Isomers | 05.15.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| TPH (Gasoline Range) | 05.15.95      | 958126       | 15           | 50  | ug/L | 8015M.TX |
| 4. TPH (8015M/8020)  |               | B5051333*1   |              |     |      |          |
| Date Analyzed        | 05.16.95      | 958126       | 05/16/95     | NA  | Date | 8015M.TX |
| Benzene              | 05.16.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Toluene              | 05.16.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Ethylbenzene         | 05.16.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| Total Xylene Isomers | 05.16.95      | 958126       | 0            | 0.5 | ug/L | 8015M.TX |
| TPH (Gasoline Range) | 05.16.95      | 958126       | 5.7          | 50  | ug/L | 8015M.TX |

SURROGATE RECOVERIES :

BC ANALYTICAL : GLEN LAB : 08:13:06 25 MAY 1995 - P. 1 :

=====

| METHOD    | ANALYTE               | BATCH  | ANALYZED | REPORTED | TRUE | %REC | FLAG |
|-----------|-----------------------|--------|----------|----------|------|------|------|
|           | 0505194*3             |        |          |          |      |      |      |
| 3015M.TXa | ,a,a-Trifluorotoluene | 958126 | 05/16/95 | 49.0     | 50.0 | 98   |      |
|           | 0505194*4             |        |          |          |      |      |      |
| 3015M.TXa | ,a,a-Trifluorotoluene | 958126 | 05/16/95 | 59.2     | 50.0 | 118  |      |
|           | 0505194*5             |        |          |          |      |      |      |
| 3015M.TXa | ,a,a-Trifluorotoluene | 958126 | 05/17/95 | 51.8     | 50.0 | 104  |      |
|           | 0505194*6             |        |          |          |      |      |      |
| 3015M.TXa | ,a,a-Trifluorotoluene | 958126 | 05/17/95 | 45.8     | 50.0 | 92   |      |
|           | 0505194*7             |        |          |          |      |      |      |
| 3015M.TXa | ,a,a-Trifluorotoluene | 958126 | 05/17/95 | 46.5     | 50.0 | 93   |      |

SURROGATE RECOVERIES :

BC ANALYTICAL : GLEN LAB : 08:13:09 25 MAY 1995 - P. 1 :

=====

| METHOD       | ANALYTE                | BATCH  | ANALYZED | REPORTED | TRUE | %REC | FLAG |
|--------------|------------------------|--------|----------|----------|------|------|------|
| 505195*1*R1  |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/15/95 | 50.6     | 50.0 | 101  |      |
| 505195*1*S1  |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/15/95 | 56.8     | 50.0 | 114  |      |
| 505195*1*S2  |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/15/95 | 55.5     | 50.0 | 111  |      |
| 505195*1*T   |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/15/95 | 50.0     | 50.0 | 100  |      |
| 505251*11*R1 |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 957209 | 05/20/95 | 47.9     | 50.0 | 96   |      |
| 505251*11*S1 |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 957209 | 05/20/95 | 52.4     | 50.0 | 105  |      |
| 505251*11*S2 |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 957209 | 05/20/95 | 51.2     | 50.0 | 102  |      |
| 505251*11*T  |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 957209 | 05/20/95 | 50.0     | 50.0 | 100  |      |
| 5051055*1*MB |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/15/95 | 47.3     | 50.0 | 95   |      |
| 5051232*1*MB |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 957209 | 05/19/95 | 50.3     | 50.0 | 101  |      |
| 5051233*1*MB |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/16/95 | 45.9     | 50.0 | 92   |      |
| 505978*1*MB  |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/12/95 | 46.4     | 50.0 | 93   |      |
| 5051970*1*LC |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/12/95 | 62.9     | 50.0 | 126  |      |
| 5051970*1*LT |                        |        |          |          |      |      |      |
| 3015M.TXa    | a,a,a-Trifluorotoluene | 958126 | 05/12/95 | 50.0     | 50.0 | 100  |      |

SURROGATE RECOVERIES :

BC ANALYTICAL : GLEN LAB : 08:13:09 25 MAY 1995 - P. 2 :

| METHOD        | ANALYTE              | BATCH  | ANALYZED | REPORTED | TRUE | %REC | FLAG |
|---------------|----------------------|--------|----------|----------|------|------|------|
| C5051971*1*LC |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 958126 | 05/12/95 | 60.7     | 50.0 | 121  |      |
| C5051971*1*LT |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 958126 | 05/12/95 | 50.0     | 50.0 | 100  |      |
| C5052109*1*LC |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 958126 | 05/15/95 | 57.8     | 50.0 | 116  |      |
| C5052109*1*LT |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 958126 | 05/15/95 | 50.0     | 50.0 | 100  |      |
| C5052462*1*LC |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 957209 | 05/20/95 | 53.4     | 50.0 | 107  |      |
| C5052462*1*LT |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 957209 | 05/20/95 | 50.0     | 50.0 | 100  |      |
| C5052463*1*LC |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 957209 | 05/20/95 | 55.1     | 50.0 | 110  |      |
| C5052463*1*LT |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 957209 | 05/20/95 | 50.0     | 50.0 | 100  |      |
| C5052601*1*LC |                      |        |          |          |      |      |      |
| 8015M.TXa     | a,a-Trifluorotoluene | 958126 | 05/16/95 | 57.0     | 50.0 | 114  |      |



LT4505 174

Chain-of-Custody

Texaco Environmental Services

108 Cutting Boulevard  
 Richmond, California 94804  
 Phone: (510) 236-3541  
 FAX: (510) 237-7821

Forward Results to the Attention of Rebecca Digerness  
 Texaco Project Coordinator Karen Petryna

Site Name:

Texaco Loc. # 618571050

Site Address:

930 Springtown Blvd. Livermore, CA

Contractor Project Number:

950507CZ

Contractor Name:

Blaine Tech Services, Inc.

Address:

985 Timothy Dr., San Jose, CA 95133

Project Contact:

Don Weltz

Phone/FAX:

(408) 995-5535 / (408) 293-8773

69505194

Laboratory: BC Analytical

Turn Around Time: normal (10 day)

Samplers (PRINT NAME): MICHAEL SCOTT BRODERICK

Sampler Signature: [Signature]

Date Samples Collected: 5-9-95

ANALYSIS

618571050  
 FK EP1012L  
 KEP  
 Alameda

| Sample Number | Lab Sample Number | Date / Time Collected | No. of Containers | Type of Containers | Sample Matrix    | Preservative | TPH gas/BTEX | TPH Diesel | O&G/TRPH (418.1) | TPH Ex. (C8-C36 +) | VOCs 8240/824 | P. Halocarbons 8010/80 | P. Aromatics 8020/802 | Organic Lead | Comments |
|---------------|-------------------|-----------------------|-------------------|--------------------|------------------|--------------|--------------|------------|------------------|--------------------|---------------|------------------------|-----------------------|--------------|----------|
| MWA           |                   | 5/9 1019              | 3                 | VOA                | H <sub>2</sub> O | HCL          | X            |            |                  |                    |               |                        |                       |              | -1       |
| MWB           |                   | 1005                  | 3                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -2       |
| MW1           |                   | 1451                  | 3                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -3       |
| MW3           |                   | 1510                  | 3                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -4       |
| MW5           |                   | 1539                  | 3                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -5       |
| EB            |                   | 1500                  | 3                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -6       |
| TB            |                   |                       | 2                 |                    |                  |              | X            |            |                  |                    |               |                        |                       |              | -7       |

Relinquished by: [Signature] Date: 5/10/95 Time: 1435

Received by: [Signature] Date: 5-10-95 Time: 1435

Relinquished by: [Signature] Date: 5-10-95 Time: 605

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Method of Shipment: \_\_\_\_\_

Lab Comments: \_\_\_\_\_

## Well Gauging Data

Project Name: TEX # 6185 71050  
 Project Number: 950509C2

Date: 5-9-95  
 Recorded By: SCOTT BRODERICK

| Well ID | TOC Elev. | DTB (ft. TOC) | Well Dia. (in.) | DTP (ft.) | DTW (ft.) | PT (ft.) | Comments |
|---------|-----------|---------------|-----------------|-----------|-----------|----------|----------|
| MW A    |           | 16.76         | 2               |           | 12.57     |          |          |
| MW B    |           | 21.28         | 2               |           | 10.58     |          |          |
| MW 1    |           | 25.42         | 4               |           | 12.83     |          |          |
| MW 2    |           | 22.53         | 4               |           | 10.14     |          |          |
| MW 3    |           | 24.65         | 4               |           | 11.97     |          |          |
| MW 4    |           | 25.02         | 4               |           | 11.22     |          |          |
| MW 5    |           | 28.17         | 2               |           | 13.41     |          |          |
| MW 6    |           | 24.52         | 2               |           | 14.50     |          |          |
| MW 7    |           | 23.68         | 4               |           | 7.65      |          |          |
| MW 8    |           | 24.06         | 4               |           | 16.54     |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |
|         |           |               |                 |           |           |          |          |

TOC = Top of casing  
 DTB = Depth to bottom in feet below TOC  
 DTP = Depth to product in feet below TOC  
 DTW = Depth to water in feet below TOC  
 PT = Product thickness in feet

# Groundwater Sampling Form

Project Name TEX #618571050  
 Project Number 95050922  
 Recorded By SCOTT BRODERICK

Well No. MWA  
 Well Type  Monitor  Extraction  Other  
 Sampled by SCOTT Date 5-9-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other

Well Total Depth (TD, ft. below TOC) 16.76  
 Depth to Water (WL, ft. below TOC) 12.37

Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other .75

### PURGE VOLUME CALCULATION

$$\frac{4.37}{\text{Water Column Length}} \times \frac{.17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.63 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

### PURGE METHOD

Bailer - Type TEFLON  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_  
 Pumping Rate \_\_\_\_\_ gpm

2.2 gals  
**CALCULATED PURGE VOLUME**  
3 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MIRAN L, FLUKE, HF

| Time/Gallons | pH  | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|--------------|-----|-------------------|------|---------------|-----------------|------------|
| 1613 / 1     | 7.6 | 1900              | 64.8 |               | > 200           | ODOR       |
| 1615 / 2     | 7.4 | 1800              | 64.6 |               | > 200           |            |
| 1617 / 3     | 7.4 | 1600              | 64.8 |               | > 200           |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other BTS

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled 5/9/95 11619

Bailer - Type  TEFLON Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

| Date/Time/% Recharge | pH | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|----------------------|----|-------------------|------|---------------|-----------------|------------|
| / /                  |    |                   |      |               |                 |            |

### SAMPLING PROGRAM

| Sample No. | Container #/Volume | Analysis         | Preservatives | Laboratory | Comments |
|------------|--------------------|------------------|---------------|------------|----------|
| <u>MWA</u> | <u>3 VOA HDML</u>  | <u>TPH, BTEX</u> | <u>HCL</u>    | <u>BLA</u> |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

| Original Sample No. | Duplicate Sample No. |
|---------------------|----------------------|
|                     |                      |
|                     |                      |

#### Blank Samples

| Type     | Sample No. |
|----------|------------|
| Trip     |            |
| Rinsate  |            |
| Transfer |            |
| Other:   |            |

# Groundwater Sampling Form

Project Name TEX #61857105D  
 Project Number 750509C2  
 Recorded By SCOTT BRODERICK

Well No. MWB  
 Well Type  Monitor  Extraction  Other  
 Sampled by SCOTT Date 5-9-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 21.28  
 Depth to Water (WL, ft. below TOC) 10.58

Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other 1.8

### PURGE VOLUME CALCULATION

$$\frac{10.7}{\text{Water Column Length}} \times \frac{.17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft.)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.63 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

### PURGE METHOD

Bailor - Type TEFLON  
 Pump - Type \_\_\_\_\_  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) \_\_\_\_\_  
 Other \_\_\_\_\_  
 Pumping Rate \_\_\_\_\_ gpm

5.5 gals  
**CALCULATED PURGE VOLUME**  
0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L. FLUKE, HF

| Time/Gallons | pH  | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|--------------|-----|-------------------|------|---------------|-----------------|------------|
| 1552 1 2     | 8.0 | 2000              | 65.8 |               | 42              | ODOR       |
| 1555 1 4     | 7.7 | 2100              | 65.2 |               | 35              |            |
| 1559 1 6     | 7.7 | 2000              | 65.0 |               | 37              |            |
|              |     |                   |      |               |                 |            |
|              |     |                   |      |               |                 |            |
|              |     |                   |      |               |                 |            |
|              |     |                   |      |               |                 |            |
|              |     |                   |      |               |                 |            |

Comments during well purge \_\_\_\_\_

Well Pumped dry. YES  NO  Purge water storage/disposal  Drummed onsite  Other BTS

## WELL SAMPLING

SAMPLING METHOD \_\_\_\_\_ Date/Time Sampled 5/9/95 1 1005

Bailor - Type  TEFLON  Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

| Date/Time/% Recharge | pH | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|----------------------|----|-------------------|------|---------------|-----------------|------------|
|                      |    |                   |      |               |                 |            |

### SAMPLING PROGRAM

| Sample No. | Container #/Volume | Analysis          | Preservatives | Laboratory | Comments |
|------------|--------------------|-------------------|---------------|------------|----------|
| <u>MWB</u> | <u>3 POK 40ML</u>  | <u>TPHG, BTEX</u> | <u>HCL</u>    | <u>BCA</u> |          |
|            |                    |                   |               |            |          |
|            |                    |                   |               |            |          |
|            |                    |                   |               |            |          |
|            |                    |                   |               |            |          |

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

| Original Sample No. | Duplicate Sample No. |
|---------------------|----------------------|
|                     |                      |
|                     |                      |

#### Blank Samples

| Type     | Sample No. |
|----------|------------|
| Trip     |            |
| Rinsate  |            |
| Transfer |            |
| Other:   |            |

# Groundwater Sampling Form

Project Name TEX # 68571050  
 Project Number 950509C2  
 Recorded By SCOTT BRODERICK

Well No. MW1  
 Well Type  Monitor  Extraction  Other  
 Sampled by SCOTT Date 5-7-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other  
 Well Total Depth (TD, ft. below TOC) 25.42  
 Depth to Water (WL, ft. below TOC) 12.83  
 Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_  
 Number of well volumes to be purged  
 3  10  Other 8.3

### PURGE METHOD

Bailor - Type \_\_\_\_\_  
 Pump - Type ELEC. SUB.  
 Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_  
 Near Bottom Depth (ft) 24  
 Other \_\_\_\_\_  
 Pumping Rate 7 gpm

### PURGE VOLUME CALCULATION

$$\frac{12.59}{\text{Water Column Length}} \times \frac{.66}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

24.9 gals  
**CALCULATED PURGE VOLUME**  
25 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYCON L, FLUKE, MF

| Time/Gallons | pH  | Cond. (uomhos/cm) | Temp (deg C / deg F) | Turbidity (NTU) | Color/Odor |
|--------------|-----|-------------------|----------------------|-----------------|------------|
| 1442 1 9     | 8.4 | 2200              | 63.6                 | 7200            | ODOR       |
| 1445 1 17    | 8.1 | 2200              | 64.4                 | 7200            |            |
| 1446 1 25    | 8.1 | 2100              | 64.2                 | 140             |            |
| 1            |     |                   |                      |                 |            |
| 1            |     |                   |                      |                 |            |
| 1            |     |                   |                      |                 |            |
| 1            |     |                   |                      |                 |            |
| 1            |     |                   |                      |                 |            |

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES  NO  Purge water storage/disposal  Drummed onsite  Other BTS

## WELL SAMPLING

SAMPLING METHOD: \_\_\_\_\_ Date/Time Sampled 5/9/95 11451

Bailer - Type  S.S. Sample port  Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

| Date/Time/% Recharge | pH | Cond. (uomhos/cm) | Temp (deg C / deg F) | Turbidity (NTU) | Color/Odor |
|----------------------|----|-------------------|----------------------|-----------------|------------|
| 1 1                  |    |                   |                      |                 |            |

### SAMPLING PROGRAM

| Sample No. | Container #/Volume | Analysis          | Preservatives | Laboratory | Comments |
|------------|--------------------|-------------------|---------------|------------|----------|
| <u>MW1</u> | <u>500 40 ML</u>   | <u>TPHQ, BTEX</u> | <u>HCL</u>    | <u>BCA</u> |          |
|            |                    |                   |               |            |          |
|            |                    |                   |               |            |          |
|            |                    |                   |               |            |          |

### QUALITY CONTROL SAMPLES

| Duplicate Samples   |                      |
|---------------------|----------------------|
| Original Sample No. | Duplicate Sample No. |
|                     |                      |

| Blank Samples |                |
|---------------|----------------|
| Type          | Sample No.     |
| Trip          | <u>EB 1500</u> |
| Rinsete       |                |
| Transfer      |                |
| Other:        |                |

EQUIPMENT BLANK DONE AFTER MW1

# Groundwater Sampling Form

Project Name TEX # 68571050

Well No. MW3

Project Number 750509C2

Well Type  Monitor  Extraction  Other

Recorded By SCOTT BRODERICK

Sampled by SCOTT

Date 5-9-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter

2-inch  4-inch  Other

Well Total Depth (TD, ft. below TOC) 24.65

Depth to Water (WL, ft. below TOC) 11.97

Depth to free phase hydrocarbons (FP, ft. below TOC)

Number of well volumes to be purged

3  10  Other 6.4

### PURGE VOLUME CALCULATION

$$\frac{12.60}{\text{Water Column Length}} \times \frac{.666}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.173 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.83 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

### PURGE METHOD

Bailor - Type

Pump - Type ELEC. SUB

Other

### PUMP INTAKE

Near top

Depth (ft) \_\_\_\_\_

Near Bottom

Depth (ft) 23

Other

Pumping Rate 7 gpm

25.1 gals  
**CALCULATED PURGE VOLUME**

26 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L. FLUKE, HF

| Time/Gallons | pH  | Cond. (uomhos/cm) | Temp (deg C / deg F) | Turbidity (NTU) | Color/Odor |
|--------------|-----|-------------------|----------------------|-----------------|------------|
| 1503 1 9     | 8.2 | 2000              | 63.4                 | 7200            | ODOR/BLACK |
| 1505 1 17    | 8.1 | 2000              | 63.8                 | 7200            |            |
| 1507 1 24    | 8.1 | 2100              | 63.0                 | 100             |            |
| /            |     |                   |                      |                 |            |
| /            |     |                   |                      |                 |            |
| /            |     |                   |                      |                 |            |
| /            |     |                   |                      |                 |            |
| /            |     |                   |                      |                 |            |

Comments during well purge

Well Pumped dry: YES  NO

Purge water storage/disposal  Drummed onsite

Other BTS

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled 5/9/95 1510

Bailor - Type  S.S.

Sample port

Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

| Date/Time/% Recharge | pH | Cond. (uomhos/cm) | Temp (deg C / deg F) | Turbidity (NTU) | Color/Odor |
|----------------------|----|-------------------|----------------------|-----------------|------------|
| / /                  |    |                   |                      |                 |            |

### SAMPLING PROGRAM

| Sample No. | Container #/Volume | Analysis         | Preservatives | Laboratory | Comments |
|------------|--------------------|------------------|---------------|------------|----------|
| <u>MW3</u> | <u>306A 40ML</u>   | <u>TPH, BTEX</u> | <u>HCL</u>    | <u>BLA</u> |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

| Original Sample No. | Duplicate Sample No. |
|---------------------|----------------------|
|                     |                      |
|                     |                      |

#### Blank Samples

| Type     | Sample No. |
|----------|------------|
| Trip     |            |
| Rinsate  |            |
| Transfer |            |
| Other:   |            |

# Groundwater Sampling Form

Project Name TEX # 618571050  
 Project Number 950509CL  
 Recorded By SCOTT BRODERICK

Well No. MW5  
 Well Type  Monitor  Extraction  Other  
 Sampled by SCOTT Date 5-9-95

## WELL PURGING

### PURGE VOLUME

Well casing diameter  
 2-inch  4-inch  Other

Well Total Depth (TD, ft. below TOC) 28.17

Depth to Water (WL, ft. below TOC) 13.41

Depth to free phase hydrocarbons (FP, ft. below TOC) \_\_\_\_\_

Number of well volumes to be purged  
 3  10  Other 2.5

### PURGE VOLUME CALCULATION

$$\frac{14.76}{\text{Water Column Length}} \times \frac{-17}{\text{Multiplier}} \times \frac{3}{\text{No. Vols}} =$$

MULTIPLIER (Casing Dia. [inches] = Gallons/linear ft)  
 2 = 0.17 | 3 = 0.38 | 4 = 0.66 | 4.5 = 0.63 | 5 = 1.02 | 6 = 1.5 | 8 = 2.6

### PURGE METHOD

Bailer - Type TEFLON

Pump - Type \_\_\_\_\_

Other \_\_\_\_\_

### PUMP INTAKE

Near top Depth (ft) \_\_\_\_\_

Near Bottom Depth (ft) \_\_\_\_\_

Other \_\_\_\_\_

Pumping Rate \_\_\_\_\_ gpm

7.5 gals  
**CALCULATED PURGE VOLUME**

0 gals  
**ACTUAL PURGE VOLUME**

### GROUNDWATER PARAMETER MEASUREMENT

Meter Type MYRON L, FLUKE, HF

| Time/Gallons | pH  | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|--------------|-----|-------------------|------|---------------|-----------------|------------|
| 1527   3     | 8.1 | 2200              | 66.2 |               | 7200            |            |
| 1531   5     | 7.9 | 2000              | 65.8 |               | 7200            |            |
| 1535   8     | 7.8 | 2000              | 65.6 |               | 7200            |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |
| /            |     |                   |      |               |                 |            |

Comments during well purge \_\_\_\_\_

Well Pumped dry: YES  NO

Purge water storage/disposal  Drummed onsite

Other BTS

## WELL SAMPLING

### SAMPLING METHOD

Date/Time Sampled 5/9/95 1539

Bailer - Type  TEFLON

Sample port

Other

### GROUNDWATER SAMPLE PARAMETER MEASUREMENTS

Meter Type \_\_\_\_\_

| Date/Time/% Recharge | pH | Cond. (uomhos/cm) | Temp | deg C / deg F | Turbidity (NTU) | Color/Odor |
|----------------------|----|-------------------|------|---------------|-----------------|------------|
| / /                  |    |                   |      |               |                 |            |

### SAMPLING PROGRAM

| Sample No. | Container #/Volume | Analysis         | Preservatives | Laboratory | Comments |
|------------|--------------------|------------------|---------------|------------|----------|
| <u>MW5</u> | <u>300A 40ML</u>   | <u>TPH, BTEX</u> | <u>HCL</u>    | <u>BCA</u> |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |
|            |                    |                  |               |            |          |

### QUALITY CONTROL SAMPLES

#### Duplicate Samples

| Original Sample No. | Duplicate Sample No. |
|---------------------|----------------------|
|                     |                      |
|                     |                      |

#### Blank Samples

| Type     | Sample No. |
|----------|------------|
| Trip     |            |
| Rinsate  |            |
| Transfer |            |
| Other:   |            |

**SOURCE RECORD BILL OF LADING**  
 FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM  
 GROUNDWATER WELLS AT TEXACO FACILITIES IN THE  
 STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE-  
 WATER WHICH HAS BEEN RECOVERED FROM GROUND-  
 WATER WELLS IS COLLECTED BY THE CONTRACTOR,  
 MADE UP INTO LOADS OF APPROPRIATE SIZE AND  
 HAULED TO THE DESTINATION DESIGNATED BY TEXACO  
 ENVIRONMENTAL SERVICES (TES).

Contractor: Blaine Tech Services, Inc.  
 Address: 985 Timothy Drive  
 City, State, ZIP: San Jose, CA 95133  
 Phone: (408) 995-5535

is authorized by Texaco Environmental Services to recover,  
 collect, apportion into loads, and haul the NON-HAZARDOUS  
 WELL PURGEWATER that is drawn from wells at the Texaco  
 facility listed below and to deliver that purgewater to an  
 appropriate destination designated by TEXACO ENVIRONMENTAL  
 SERVICES in either Redwood City, California or in Richmond,  
 California. Transport routing of the Non-Hazardous Well  
 Purgewater may be directed from one Texaco facility to the  
 designated destination point; from one Texaco facility to the  
 designated destination point via another Texaco facility; from a  
 Texaco facility via the contractor's facility, or any combination  
 thereof. The Non-Hazardous Well Purgewater is and remains the  
 property of Texaco Environmental Services (TES).

This SOURCE RECORD BILL OF LADING was initiated to cover  
 the recovery of Non-Hazardous Well Purgewater from wells at  
 the Texaco facility described below:

TEXACO #: 018571050  
 Address: 930 SPRINGTOWN BLVD.  
 City, State, ZIP: LEVERMORE, CA

| Well I.D.             | Gals.     | Well I.D.         | Gals.    |
|-----------------------|-----------|-------------------|----------|
| MWA 1                 | 3         |                   | 1        |
| MWB 1                 | 6         |                   | 1        |
| MW 1                  | 25        |                   | 1        |
| MW 3                  | 26        |                   | 1        |
| MW 5                  | 8         |                   | 1        |
|                       | 1         |                   | 1        |
|                       | 1         |                   | 1        |
|                       | 1         |                   | 1        |
|                       | 1         |                   | 1        |
|                       | 1         |                   | 1        |
| Total gals.           | <u>68</u> | added rinse water | <u>5</u> |
| Total Gals. Recovered | <u>73</u> |                   |          |

Job #: 950509C2  
 Date: 5-9-95  
 Time: 1600  
 Signature: [Signature]

REC'D AT: BTS  
 Date: 5-9-95  
 Time: 1700  
 Signature: [Signature]



**QUARTERLY SUMMARY REPORT**  
Former Texaco Service Station/Current Seven-Eleven Store  
930 Springtown, Livermore, California  
Alameda County  
First Quarter, 1995

**HISTORY OF INVESTIGATIVE AND REMEDIAL ACTIONS**

Subsurface investigation was initiated in September, 1984 with the installation of two groundwater monitoring wells (MW-A and MW-B). Underground storage tanks removed in June, 1985. Investigation continued in 1985, 1986, and 1989 to define extent of plume. Monitoring wells MW-1 through MW-3 were installed in June, 1985, MW-4 was installed in September, 1985, and MW-5 and MW-6 were installed in November, 1986. One soil boring and two additional monitoring wells (MW-7 and MW-8) were drilled in December, 1989 to fully define the extent of subsurface hydrocarbons.

**WORK PERFORMED DURING THIS QUARTER**

Quarterly groundwater monitoring and sampling and operation of the soil vapor extraction system.

**CHARACTERIZATION STATUS**

Petroleum hydrocarbons plume has been delineated.

**REMEDICATION STATUS**

Soil vapor extraction in operation.

**WORK TO BE PERFORMED NEXT QUARTER**

Continue quarterly monitoring and sampling to record fluctuations in hydrocarbons concentrations and operate soil vapor extraction system.

**COMPANY CONTACT:** Karen Petryna (510) 236-9139