



**Weiss Associates**

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Environmental and Geologic Services

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HAZMAT  
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**January 26, 1994**

Scott Seery  
Alameda County Department  
of Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621-1426

Re: Shell Service Station  
WIC #204-6852-0703  
1285 Bancroft Avenue  
San Leandro, California 94577  
WA Job #81-423-203

Dear Mr. Seery:

This letter describes recently completed and anticipated activities at the Shell service station referenced above (Figure 1). This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 265.d. Included below are descriptions and results of activities performed in the fourth quarter 1993 and proposed work for the first quarter 1994.

Fourth Quarter 1993 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the three site wells. BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1 and 2 respectively) and prepared a ground water elevation contour map (Figure 2).
- On October 14, 1993, Dan Kirk of Shell Oil Company, Scott Seery of Alameda County Department of Environmental Health and Scott MacLeod of WA met to determine what steps would be necessary to close this site. On October 29, 1993 WA submitted an investigation workplan to perform the field investigation necessary for site closure.

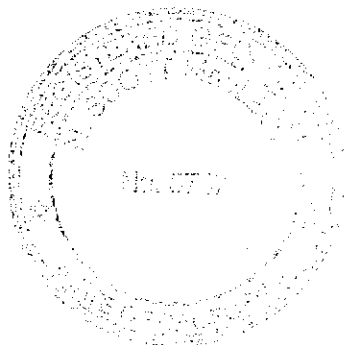
Anticipated First Quarter 1994 Activities:

- WA will submit a report presenting the results of the first quarter 1994 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.
- WA will conduct the investigation outlined in our October 28, 1993 workplan.

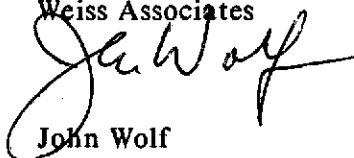
Discussion/Recommendations

~~It recommends continued site monitoring of the existing monitoring wells for at least one year. If hydrocarbon concentrations remain at current levels, we recommend closing this case.~~

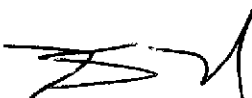
Please call if you have any questions or comments.



Sincerely,  
Weiss Associates



John Wolf  
Technical Assistant



N. Scott MacLeod, R.G.  
Project Geologist

JW/NSM:jw

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Attachments: A - Ground Water Monitoring Report and Analytic Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, California 94520-9998  
Lester Feldman, California Regional Water Quality Control Board - San Francisco Bay  
Region, 2101 Webster Street, Oakland, California 94612

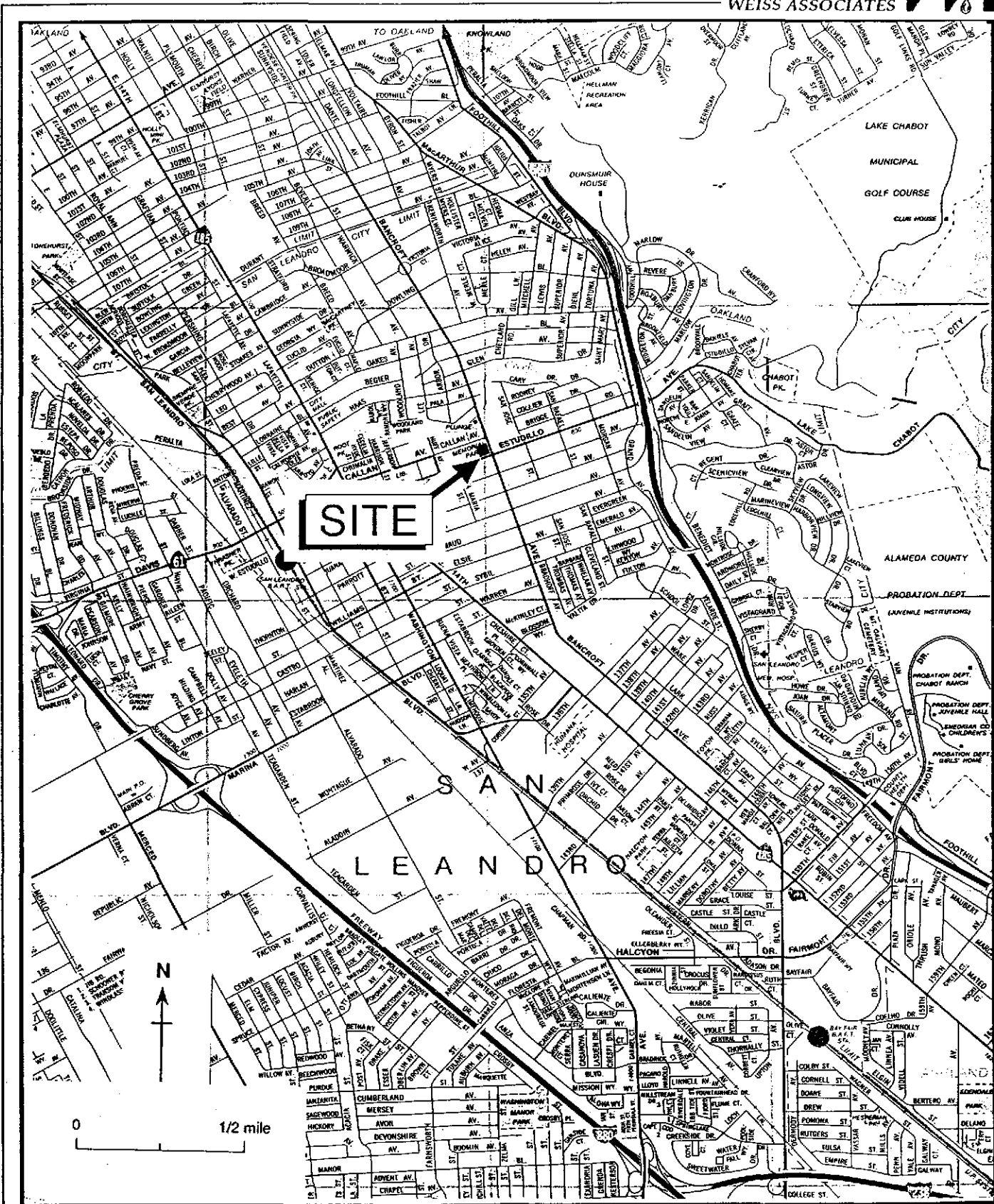
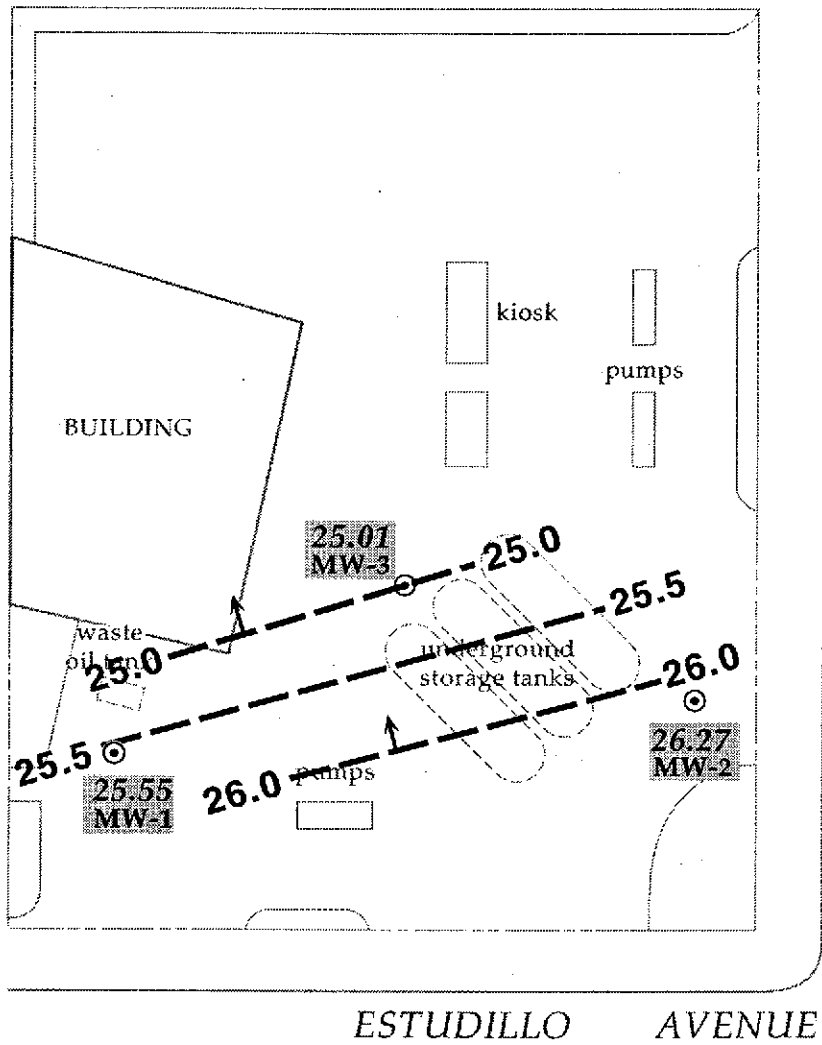


Figure 1. Site Location Map - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



| EXPLANATION |   |
|-------------|---|
| ⊙ MW-2      | Monitoring well   |
| 25.55       | Ground water elevation, ft above mean sea level   |
| — 26.0      | Ground water elevation contour, ft above mean sea level, approximately located, dashed where inferred |
| →           | Inferred ground water flow direction  |

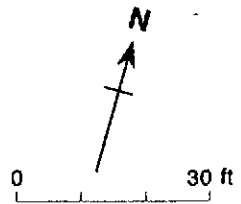


Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - December 13, 1993 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Table 1. Ground Water Elevations, Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

| Well ID | Date       | Top-of-Casing Elevation (ft above msl) | Depth to Water (ft) | Ground Water Elevation (ft above msl) |
|---------|------------|--|---------------------|---------------------------------------|
| MW-1    | 03/13/90   | 66.29                                  | 42.65               | 23.64                                 |
|         | 06/12/90   |  | 43.14               | 23.15                                 |
|         | 09/13/90   |  | 44.71               | 21.58                                 |
|         | 12/18/90   |  | 45.23               | 21.06                                 |
|         | 03/07/91   |  | 43.32               | 22.97                                 |
|         | 06/07/91   |  | 42.18               | 24.11                                 |
|         | 09/17/91   |  | 44.85               | 21.44                                 |
|         | 03/01/92   |  | 41.56               | 24.73                                 |
|         | 06/03/92   |  | 40.74               | 25.55                                 |
|         | 09/01/92   |  | 43.05               | 23.24                                 |
|         | 12/07/92   |  | 44.19               | 22.10                                 |
|         | * 03/01/93 |  | 34.96               | 31.33                                 |
|         | 06/22/93   |  | 36.75               | 29.54                                 |
|         | 09/09/93   |  | 39.36               | 26.93                                 |
|         | 12/13/93   |  | 40.74               | 25.55                                 |
| MW-2    | 03/01/92   | 66.91                                  | 41.57               | 25.34                                 |
|         | 06/03/92   |  | 40.56               | 26.35                                 |
|         | 09/01/92   |  | 42.94               | 23.97                                 |
|         | 12/07/92   |  | 44.13               | 22.78                                 |
|         | * 03/01/93 |  | 34.82               | 32.09                                 |
|         | 06/22/93   |  | 36.64               | 30.27                                 |
|         | 09/09/93   |  | 39.24               | 27.67                                 |
|         | 12/13/93   |  | 40.64               | 26.27                                 |
| MW-3    | 03/01/92   | 66.31                                  | 42.00               | 24.31                                 |
|         | 06/03/92   |  | 44.30               | 22.01                                 |
|         | 09/01/92   |  | 43.62               | 22.69                                 |
|         | 12/07/92   |  | 44.77               | 21.54                                 |
|         | * 03/01/93 |  | 35.50               | 30.81                                 |
|         | 06/22/93   |  | 37.30               | 29.01                                 |
|         | 09/09/93   |  | 39.90               | 26.41                                 |
|         | 12/13/93   |  | 41.30               | 25.01                                 |

Table 2A. Analytical Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

| Well ID      | Date Sampled | Depth to Water (ft) | TPH-G                              | TPH-D            | B    | E    | T                | X     |
|--------------|--------------|---------------------|------------------------------------|------------------|------|------|------------------|-------|
|              |              |                     | -----parts per billion (µg/L)----- |                  |      |      |                  |       |
| MW-1         | 09/17/91     | 44.85               | 50 <sup>a</sup>                    | 160 <sup>b</sup> | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 03/01/92     | 41.56               | <50                                | <50              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/03/92     | 40.74               | <50                                | ---              | 0.8  | 0.9  | <0.5             | <0.5  |
|              | 09/01/92     | 43.05               | <50                                | ---              | <0.5 | 5.3  | 5.8              | 7.2   |
|              | 12/07/92     | 44.19               | 68                                 | ---              | <0.5 | <0.5 | 0.8              | 1.2   |
|              | 03/01/93     | 34.96               | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 03/01/93 dup |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/22/93     | 36.75               | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 09/09/93     | 39.36               | 200 <sup>c</sup>                   | ---              | 16   | 2.0  | 5.2              | <0.5  |
|              | 12/13/93     | 40.74               | 89 <sup>d</sup>                    | ---              | 3.4  | <0.5 | <0.5             | <0.5  |
| MW-2         | 03/01/92     | 41.57               | 910                                | <50              | 11   | 50   | 5.2              | 140   |
|              | 06/03/92     | 40.56               | 1,400                              | ---              | 33   | 150  | 16               | 240   |
|              | 09/01/92     | 42.94               | 230                                | ---              | 5.2  | 15   | 4.1              | 19    |
|              | 09/01/92 dup |                     | 320                                | ---              | 5.6  | 18   | 5                | 220   |
|              | 12/07/92     | 44.13               | 240                                | ---              | 1.5  | 9.5  | 1.3              | 9.9   |
|              | 12/07/92 dup |                     | <50                                | ---              | 1.7  | 13   | 1                | 12    |
|              | 03/01/93     | 34.82               | 230                                | ---              | 260  | 27   | 310              | 66    |
|              | 06/22/93     | 36.64               | 220                                | ---              | 18   | 3.6  | 3.4              | 5.2   |
|              | 06/22/93 dup |                     | 320                                | ---              | 29   | 4.2  | 4.8              | 6.1   |
|              | 09/09/93     | 39.24               | 260                                | ---              | 18   | 16   | 4.6              | 12    |
|              | 09/09/93 dup | 39.24               | 210                                | ---              | 16   | 14   | 3.9              | 9.1   |
|              | 12/13/93     | 40.64               | ---                                | ---              | ---  | ---  | ---              | ---   |
| 12/13/93 dup | 40.64        | ---                 | ---                                | ---              | ---  | ---  | ---              |       |
| MW-3         | 03/01/92     | 42.00               | <50                                | <50              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/03/92     | 44.30               | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 09/01/92     | 43.62               | <50                                | ---              | <0.5 | 1.1  | <0.5             | 3.2   |
|              | 12/07/92     | 44.77               | 52                                 | ---              | <0.5 | <0.5 | <0.5             | 0.5   |
|              | 03/01/93     | 35.50               | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/22/93     | 37.30               | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 09/09/93     | 39.90               | 50 <sup>c</sup>                    | ---              | 5.0  | <0.5 | <0.5             | <0.5  |
|              | 12/13/93     | 41.30               | 120 <sup>d</sup>                   | ---              | 7.5  | 1.6  | <0.5             | 6.3   |
| Bailer Blank | 09/01/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | 1     |
|              | 12/07/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
| Trip Blank   | 09/17/91     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 03/01/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/03/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 09/01/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 12/07/92     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 03/01/93     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 06/22/93     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 09/09/93     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
|              | 12/13/93     |                     | <50                                | ---              | <0.5 | <0.5 | <0.5             | <0.5  |
| DTSC NCLs    |              |                     | NE                                 | NE               | 1    | 680  | 100 <sup>e</sup> | 1,750 |



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Table 2A. Analytical Results for Ground Water - Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California  
(continued)

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Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015

TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015

B = Benzene by EPA Method 8020

E = Ethylbenzene by EPA Method 8020

T = Toluene by EPA Method 8020

X = Xylenes by EPA Method 8020

dup = Duplicate sample

NE = Not established

DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water

--- = Not analyzed

<n = Not detected at detection limits of n ppm

Notes:

a = Result due to a non-gasoline hydrocarbon compound

b = Result due to a non-diesel hydrocarbon compound

c = The concentrations reported as gasoline are primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

d = The concentrations reported as gasoline are primarily due to the presence of a discrete peak not indicative of gasoline

e = DTSC recommended action level; MCL not established

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Table 2B. Analytic Reports for Ground Water - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

| Well ID   | Date Sampled            | Depth to Water | TCE                      | TOG     | PCE  | Chloroform | cis-1,2-DCE | trans-1,2-DCE |
|-----------|-------------------------|----------------|--------------------------|---------|------|------------|-------------|---------------|
|           |                         |                | parts per billion (µg/L) |         |      |            |             |               |
| MW-1      | 03/08/90                | 42.65          | ---                      | <10,000 | 35   | 6.3        | ---         | ---           |
|           | 06/12/90                | 43.14          | ---                      | <10,000 | 1.9  | 63         | ---         | ---           |
|           | 09/13/90                | 44.71          | ---                      | <10,000 | 26   | 9          | ---         | ---           |
|           | 12/18/90                | 45.23          | ---                      | <10,000 | <0.4 | 5.3        | ---         | ---           |
|           | 03/07/91                | 43.32          | ---                      | ---     | 23   | 3.7        | ---         | ---           |
|           | 06/07/91                | 42.18          | ---                      | ---     | 21   | 6.6        | ---         | ---           |
|           | 09/17/91                | 44.85          | ---                      | ---     | 23   | 7.4        | ---         | ---           |
|           | 03/01/92                | 41.56          | <0.4                     | ---     | 21   | 6.3        | ---         | <0.4          |
|           | 06/03/92                | 40.74          | 17                       | ---     | <0.5 | 6.7        | <0.5        | <0.5          |
|           | 09/01/92                | 43.05          | 12                       | ---     | <0.5 | 5.8        | <0.5        | <0.5          |
|           | 12/07/92                | 44.19          | <0.5                     | ---     | 17   | 9          | <0.5        | <0.5          |
|           | 03/01/93                | 34.96          | <0.5                     | ---     | 22   | 13         | <0.5        | <0.5          |
|           | 03/01/93 <sup>dup</sup> |                | <0.5                     | ---     | 22   | 13         | <0.5        | <0.5          |
|           | 06/23/93                | 36.75          | <0.5                     | ---     | 18   | 8          | <0.5        | <0.5          |
|           | 09/09/93                | 39.36          | <0.5                     | ---     | 17   | 6.5        | <0.5        | <0.5          |
| 12/13/93  | 40.74                   | ---            | ---                      | ---     | ---  | ---        | ---         |               |
| MW-2      | 03/01/92                | 41.57          | <0.4                     | ---     | 11   | 8.9        | ---         | <0.4          |
|           | 06/03/92                | 40.56          | 7.4                      | ---     | <0.5 | <0.5       | 0.76        | 6.3           |
|           | 09/01/92                | 42.94          | 8.4                      | ---     | <0.5 | 9.1        | <0.5        | <0.5          |
|           | 09/01/92 <sup>dup</sup> | 42.94          | 8.4                      | ---     | <0.5 | 8.1        | <0.5        | <0.5          |
|           | 12/07/92                | 44.13          | <0.5                     | ---     | 10   | 10         | <0.5        | <0.5          |
|           | 12/07/92 <sup>dup</sup> | 44.13          | <0.5                     | ---     | 10   | 9          | <0.5        | <0.5          |
|           | 03/01/93                | 34.82          | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
|           | 06/22/93                | 36.64          | <0.5                     | ---     | 13   | 7.9        | <0.5        | <0.5          |
|           | 06/22/93 <sup>dup</sup> | 36.64          | <0.5                     | ---     | 12   | 6.9        | <0.5        | <0.5          |
|           | 09/09/93                | 39.24          | <0.5                     | ---     | 11   | 5.9        | 1.9         | <0.5          |
|           | 09/09/93                | 39.24          | <0.5                     | ---     | 12   | 7.3        | 1.1         | <0.5          |
|           | 12/13/93                | 40.64          | ---                      | ---     | ---  | ---        | ---         | ---           |
| MW-3      | 03/01/92                | 42.00          | <0.4                     | ---     | 8.8  | 2.4        | ---         | <0.4          |
|           | 06/03/92                | 44.30          | 3                        | ---     | <0.5 | 1.5        | <0.5        | <0.5          |
|           | 09/01/92                | 43.62          | 8.8                      | ---     | <0.5 | 2.3        | <0.5        | <0.5          |
|           | 12/07/92                | 44.77          | <0.5                     | ---     | 10   | 3          | <0.5        | <0.5          |
|           | 03/01/93                | 35.50          | <0.5                     | ---     | 9.2  | 9.4        | <0.5        | <0.5          |
|           | 06/22/93                | 37.30          | <0.5                     | ---     | 7.8  | 9.6        | <0.5        | <0.5          |
|           | 09/09/93                | 39.90          | <0.5                     | ---     | 7.9  | 7.3        | <0.5        | <0.5          |
|           | 12/13/93                | 41.30          | ---                      | ---     | ---  | ---        | ---         | ---           |
| Bafler    | 09/01/92                |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
| Blank     | 12/07/92                |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
| Trip      | 09/01/92                |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
| Blank     | 12/07/92 <sup>a</sup>   |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
|           | 03/01/93                |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
|           | 06/22/93 <sup>b</sup>   |                | <0.5                     | ---     | <0.5 | <0.5       | <0.5        | <0.5          |
| DTSC MCLs |                         |                | 5                        | NE      | 5    | NE         | 6           | 10            |



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Table 2B. Analytic Reports for Ground Water - Non-Fuel Compounds - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California (continued)

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Abbreviations:

TCE = Trichloroethene by EPA Method 601  
TOG = Total non-polar oil and grease by American Public Health Association Standard Methods 503A&E  
PCE = Tetrachloroethene by EPA Method 601  
cis-1,2-DCE = cis-1,2-Dichloroethene by EPA Method 601  
trans-1,2-DCE = trans-1,2-Dichloroethene by EPA Method 601  
--- = Not analyzed  
dup = Duplicate sample  
DTSC MCLs = Department of Toxic Substances Control maximum contaminant levels for drinking water  
NE = DTSC MCL not established

Notes:

a = Sample contained 0.014 mg/L of 1,3-Dichlorobenzene.  
b = Although 1.4 ppb methylene chloride was detected in one of the ground water samples from well MW-2, the laboratory indicated that this was within normal laboratory background concentrations.

**ATTACHMENT A**  
**GROUND WATER MONITORING REPORT AND ANALYTIC REPORT**