# GETTLER-RYAN INC.

01-09-28A09:32 RCVD

## TRANSMITTAL

September 11, 2001
G-R #180066

R0231

TO: Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94586

CC: Mr. David Vossler
Gettler-Ryan Inc.
Petaluma, California

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

**RE: Tosco (Unocal) Service Station #0752**
**800 Harrison Street**
**Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

| COPIES | DATED | DESCRIPTION |
|---|---|---|
| 1 | August 29, 2001 | Groundwater Monitoring and Sampling Report<br>Third Quarter - Event of July 30, 2001 |

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by ***September 25, 2001***, this report will be distributed to the following:

cc: Ms. Jennifer Eberle, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502

Enclosure

trans/0752-DBD

# GETTLER-RYAN INC.

August 29, 2001
G-R Job #180066

Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

**RE: Third Quarter Event of July 30, 2001**
Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 5. A Potentiometric Map is included as Figure 1.

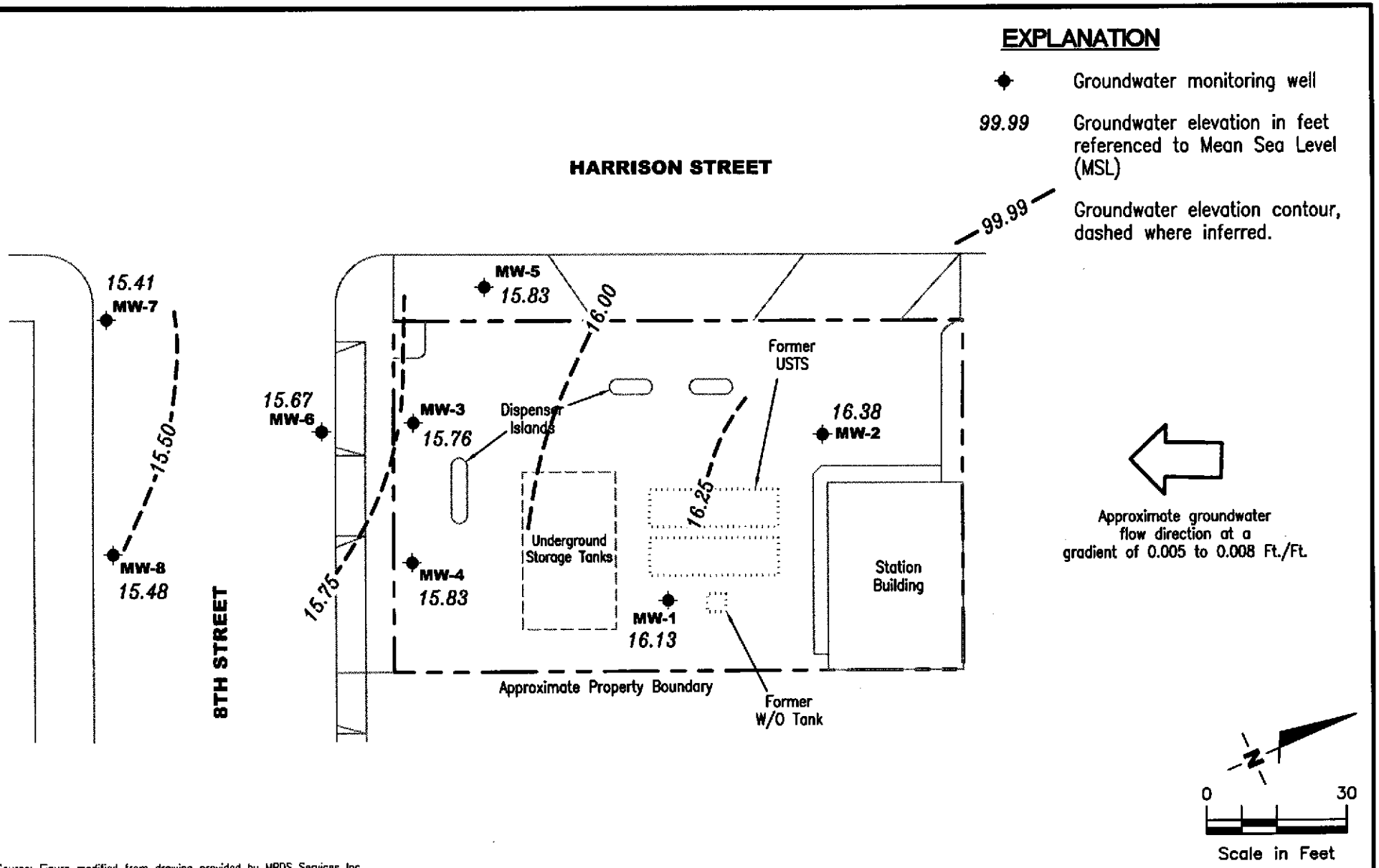
Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1, 2, 3 and 4. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Table 3: Groundwater Analytical Results
Table 4: Groundwater Analytical Results
Table 5: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
0752.qml Chain of Custody Document and Laboratory Analytical Reports




Source: Figure modified from drawing provided by MPDS Services Inc..

GETTLER - RYAN INC.
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**POTENTIOMETRIC MAP**
Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

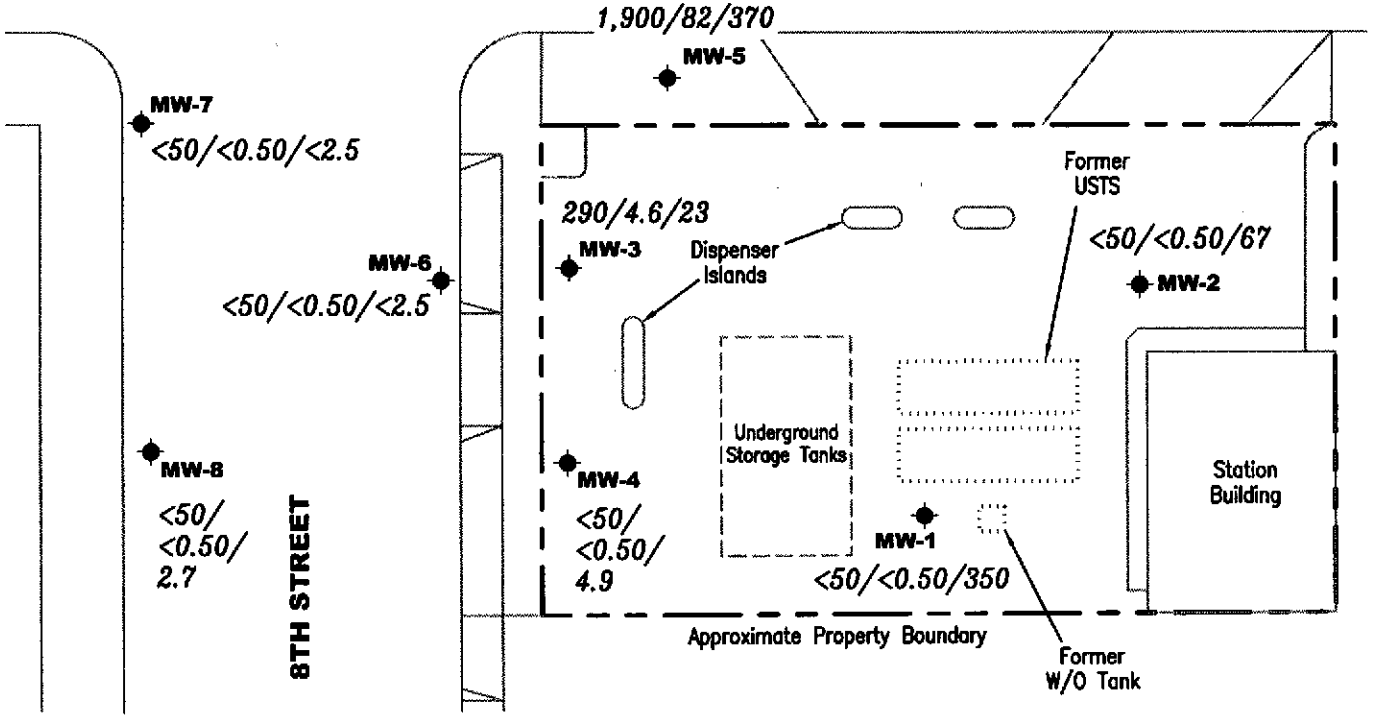
FIGURE
1

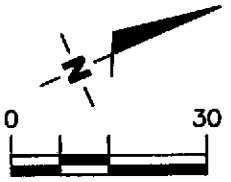
| PROJECT NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 180066 | | July 30, 2001 | |

FILE NAME: P:\ENVIRO\TOSCO\0752\Q01-0752.DWG | Layout Tab: Pot3

## EXPLANATION

- ✦ Groundwater monitoring well
- *A/B/C* TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/ Benzene/MTBE concentrations in ppb




Source: Figure modified from drawing provided by MPDS Services Inc..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Dublin, CA 94568 (925) 551-7555


**CONCENTRATION MAP**
Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

FIGURE
2

| PROJECT NUMBER | REVIEWED BY | DATE | REVISED DATE |
|---|---|---|---|
| 180066 | | July 30, 2001 | |

FILE NAME: P:\ENVIRO\TOSCO\0752\Q01-0752.DWG | Layout Tab: Con3

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | | 06/05/91 | -- | -- | ND | 47 | ND | ND | ND | ND | -- | 7.8 | 2.9 | 1.3 |
| | | 09/30/91 | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 12/30/91 | -- | -- | ND | ND | ND | ND | ND | ND | -- | 6.4 | 2.1 | 0.9 |
| | | 04/02/92 | -- | -- | 94 | ND | ND | ND | ND | ND | -- | 7.1 | 2.6 | 1.4 |
| | | 06/30/92 | -- | -- | 120 | ND | ND | ND | ND | ND | -- | 9.5 | 2.2 | 1.3 |
| | | 09/15/92 | -- | -- | ND | 76 | 1.0 | ND | ND | ND | -- | 12 | 2.2 | 1.3 |
| 34.94 | | 12/21/92 | 21.17 | 13.77 | ND | 95 | 0.69 | ND | ND | 1.0 | -- | 12 | 1.4 | 0.83 |
| | | 04/28/93[1] | -- | -- | 470[2] | 920 | 3.1 | 2.3 | 1.2 | 9.7 | -- | 12 | 0.89 | 0.85 |
| | | 07/23/93 | 20.13 | 14.81 | ND | ND | 0.5 | 0.66 | ND | ND | -- | 16 | 1.3 | 0.91 |
| 34.69 | | 10/05/93 | 20.30 | 14.39 | 57[3] | 92[5] | 1.5 | ND | ND | 0.72 | -- | 13 | 1.3 | 0.66 |
| | | 01/03/94[6] | 20.52 | 14.17 | ND | ND | ND | ND | ND | ND | -- | 18 | 1.4 | 0.93 |
| | | 04/02/94 | 20.16 | 14.53 | ND | ND | ND | ND | ND | ND | -- | 15 | 1.1 | 0.68 |
| | | 07/05/94 | 19.27 | 15.42 | -- | 250 | 4.8 | 13 | 1.2 | 7.3 | -- | -- | -- | -- |
| | | 10/06/94 | 20.87 | 13.82 | -- | 540 | 1.4 | ND | 0.66 | 11 | -- | -- | -- | -- |
| | | 01/02/95 | 19.67 | 15.02 | -- | 140 | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 04/03/95 | 17.61 | 17.08 | -- | 580 | 3.6 | 0.75 | ND | 4.0 | -- | -- | -- | -- |
| | | 07/14/95 | 18.58 | 16.11 | -- | 260 | 2.1 | ND | ND | 1.2 | -- | -- | -- | -- |
| | | 10/10/95 | 19.60 | 15.09 | -- | 220 | 2.0 | ND | 25 | 5.6 | 29 | -- | -- | -- |
| | | 01/03/96 | 19.69 | 15.00 | -- | 190 | 2.4 | ND | 0.71 | 1.2 | -- | -- | -- | -- |
| | | 04/10/96 | 17.65 | 17.04 | -- | 540 | 8.9 | 1.7 | 1.5 | 7.4 | 50 | -- | -- | -- |
| | | 07/09/96 | 18.52 | 16.17 | -- | 490 | 3.0 | 1.4 | 1.3 | 2.5 | 150 | -- | -- | -- |
| | | 01/24/97 | 17.72 | 16.97 | -- | 760 | 27 | 0.89 | 5.2 | 10 | 510 | -- | -- | -- |
| | | 07/23/97 | 19.42 | 15.27 | -- | ND | ND | ND | ND | ND | 550 | -- | -- | -- |
| | NP | 01/26/98 | 17.46 | 17.23 | -- | 1,800[8] | ND[9] | ND[9] | ND[9] | ND[9] | 4,800 | -- | -- | -- |
| | NP | 07/03/98 | 18.61 | 16.08 | -- | ND[9] | ND[9] | ND[9] | ND[9] | ND[9] | 1,800 | -- | -- | -- |
| | | 01/14/99 | 18.92 | 15.77 | -- | 83[10] | ND | ND | ND | ND | 230 | -- | -- | -- |
| | | 07/15/99 | 17.84 | 16.85 | -- | 110 | ND | ND | ND | 1.0 | 290 | -- | -- | -- |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

| WELL ID/ TOC* | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 01/07/00 | 19.13 | 15.56 | -- | ND | ND | ND | ND | ND | 260 | -- | -- | -- |
| (cont) | 07/19/00 | 20.27 | 14.42 | -- | ND | ND | ND | ND | ND | 648 | -- | -- | -- |
| | 01/02/01 | 20.04 | 14.65 | -- | ND | ND | ND | ND | ND | 119 | -- | -- | -- |
| | 05/23/01 | 18.27 | 16.42 | -- | 84[12] | ND | ND | ND | ND | 760 | -- | -- | -- |
| | **07/30/01** | **18.56** | **16.13** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **350** | **--** | **--** | **--** |
| **MW-2** | 06/05/91 | -- | -- | -- | 49 | ND | ND | ND | ND | -- | -- | -- | -- |
| | 09/30/91 | -- | -- | -- | 130 | 18 | 0.53 | 14 | 9.6 | -- | -- | -- | -- |
| | 12/30/91 | -- | -- | -- | 91 | 16 | 0.89 | 11 | 1.9 | -- | -- | -- | -- |
| | 04/02/92 | -- | -- | -- | 88 | 12 | 0.32 | 6.3 | 7.2 | -- | -- | -- | -- |
| | 06/30/92 | -- | -- | -- | 76 | 9.3 | 0.76 | 4.8 | 6.9 | -- | -- | -- | -- |
| | 09/15/92 | -- | -- | -- | 1,300 | 91 | 5.7 | 80 | 110 | -- | -- | -- | -- |
| 34.97 | 12/21/92 | 20.85 | 14.12 | -- | 960 | 97 | 3.2 | 74 | 96 | -- | -- | -- | -- |
| | 04/28/93 | -- | -- | -- | 1,300 | 76 | 1.9 | 130 | 87 | -- | -- | -- | -- |
| | 07/23/93 | 19.81 | 15.16 | -- | 66 | 1.8 | ND | 2.5 | 2.0 | -- | -- | -- | -- |
| 34.72 | 10/05/93 | 19.95 | 14.77 | -- | 120 | 12 | ND | 2.1 | 12 | -- | -- | -- | -- |
| | 01/03/94 | 20.21 | 14.51 | -- | 260 | 25 | ND | 5.5 | 26 | -- | -- | -- | -- |
| | 04/02/94 | 19.88 | 14.84 | -- | ND | 0.65 | ND | ND | 0.99 | -- | -- | -- | -- |
| | 07/05/94 | 19.07 | 15.65 | -- | 160 | 16 | ND | 0.73 | 10 | -- | -- | -- | -- |
| | 10/06/94 | 20.55 | 14.17 | -- | 170 | 15 | ND | 1.4 | 11 | -- | -- | -- | -- |
| | 01/02/95 | 19.25 | 15.47 | -- | 190 | 27 | ND | 0.95 | 11 | -- | -- | -- | -- |
| | 04/03/95 | 17.49 | 17.23 | -- | 2,400 | 65 | 6.6 | 19 | 63 | -- | -- | -- | -- |
| | 07/14/95 | 18.30 | 16.42 | -- | 750 | 270 | ND | ND | 13 | -- | -- | -- | -- |
| | 10/10/95 | 19.25 | 15.47 | -- | 50 | 1.6 | ND | ND | ND | 200 | -- | -- | -- |
| | 01/03/96 | 19.40 | 15.32 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | 04/10/96 | 17.35 | 17.37 | -- | 300 | 42 | ND | 2.4 | 9.0 | 620 | -- | -- | -- |
| | 07/09/96 | 18.22 | 16.50 | -- | 760 | 230 | ND | 1.3 | 2.4 | 1,500 | -- | -- | -- |
| | 01/24/97 | 17.59 | 17.13 | -- | 2,900 | 400 | 350 | 190 | 720 | 1,300 | -- | -- | -- |
| | 07/23/97 | 19.13 | 15.59 | -- | ND | ND | ND | ND | ND | 65 | -- | -- | -- |
| NP | 01/26/98 | 17.12 | 17.60 | -- | ND | ND | ND | ND | 0.58 | 13 | -- | -- | -- |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-2 | NP | 07/03/98 | 18.20 | 16.52 | -- | 140 | 26 | ND | 0.95 | 5.0 | 330 | -- | -- | -- |
| (cont) | | 01/14/99 | 18.56 | 16.16 | -- | ND | 0.54 | ND | ND | ND | 350 | -- | -- | -- |
| | | 07/15/99 | 17.39 | 17.33 | -- | ND | 0.88 | ND | ND | ND | 39 | -- | -- | -- |
| | | 01/07/00 | 18.78 | 15.94 | -- | ND | ND | ND | ND | ND | 24 | -- | -- | -- |
| | | 07/19/00 | 19.68 | 15.04 | -- | ND | 1.45 | ND | ND | ND | 117 | -- | -- | -- |
| | | 01/02/01 | 19.73 | 14.99 | -- | ND | ND | ND | ND | ND | 11.4 | -- | -- | -- |
| | | 05/23/01 | 18.16 | 16.56 | -- | ND | ND | ND | ND | ND | 33 | -- | -- | -- |
| | | **07/30/01** | **18.34** | **16.38** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **67** | **--** | **--** | **--** |
| **MW-3** | | 06/05/91 | -- | -- | -- | 5,800 | 1,200 | 40 | 140 | 97 | -- | -- | -- | -- |
| | | 09/30/91 | -- | -- | -- | 6,800 | 1,400 | 130 | 290 | 240 | -- | -- | -- | -- |
| | | 12/30/91 | -- | -- | -- | 7,200 | 2,100 | 690 | 410 | 550 | -- | -- | -- | -- |
| | | 04/02/92 | -- | -- | -- | 8,000 | 1,400 | 200 | 300 | 310 | -- | -- | -- | -- |
| | | 06/30/92 | -- | -- | -- | 8,900 | 1,900 | 210 | 430 | 550 | -- | -- | -- | -- |
| | | 09/15/92 | -- | -- | -- | 10,000 | 1,900 | 330 | 400 | 580 | -- | -- | -- | -- |
| 33.39 | | 12/21/92 | 20.02 | 13.37 | -- | 8,500 | 1,500 | 150 | 310 | 330 | -- | -- | -- | -- |
| | | 04/28/93 | -- | -- | -- | 2,600 | 220 | 7.6 | 41 | 27 | -- | -- | -- | -- |
| | | 07/23/93 | 19.00 | 14.39 | -- | 4,400 | 660 | 26 | 160 | 82 | -- | -- | -- | -- |
| 33.14 | | 10/05/93 | 19.20 | 13.94 | -- | 9,200 | 720 | 88 | 140 | 140 | -- | -- | -- | -- |
| | | 01/03/94 | 19.40 | 13.74 | -- | 4,900 | 830 | 100 | 170 | 150 | -- | -- | -- | -- |
| | | 04/02/94 | 19.01 | 14.13 | -- | 6,000 | 800 | 30 | 140 | 110 | -- | -- | -- | -- |
| | | 07/05/94 | 18.14 | 15.00 | -- | 25,000[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/06/94 | 19.73 | 13.41 | -- | 49,000[4] | 1,300 | 200 | 280 | 300 | -- | -- | -- | -- |
| | | 01/02/95 | 18.36 | 14.78 | -- | 480 | 1.6 | ND | 1.4 | ND | -- | -- | -- | -- |
| | | 04/03/95 | 16.38 | 16.76 | -- | 8,100[5] | 65 | ND | ND | ND | -- | -- | -- | -- |
| | | 07/14/95 | 17.49 | 15.65 | -- | ND | 1,300 | ND | ND | ND | -- | -- | -- | -- |
| | | 10/10/95 | 18.50 | 14.64 | -- | 3,100 | 1,400 | 36 | 50 | 53 | 190,000 | -- | -- | -- |
| | | 01/03/96[7] | 18.54 | 14.60 | -- | ND | 2,300 | 110 | 150 | 140 | -- | -- | -- | -- |
| | | 04/10/96 | 16.40 | 16.74 | -- | 940 | 38 | 33 | 39 | 47 | 69,000 | -- | -- | -- |
| | | 07/09/96 | 17.43 | 15.71 | -- | ND | 2,000 | ND | 150 | 160 | 140,000 | -- | -- | -- |

# Table 1

**Groundwater Monitoring Data and Analytical Results**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-3 | | 01/24/97 | 16.57 | 16.57 | -- | 540 | 8.0 | ND | 11 | 9.9 | 45 | -- | -- | -- |
| (cont) | | 07/23/97 | 18.38 | 14.76 | -- | 7,400 | 1,900 | 180 | 140 | 340 | 45,000 | -- | -- | -- |
| | NP | 01/26/98 | 16.22 | 16.92 | -- | 250 | 2.2 | 1.9 | 0.87 | 1.9 | 4.0 | -- | -- | -- |
| | NP | 07/03/98 | 17.46 | 15.68 | -- | 230 | 1.8 | 2.5 | 1.5 | 3.4 | 6.3 | -- | -- | -- |
| | | 01/14/99 | 17.73 | 15.41 | -- | 400[10] | 8.2 | 2.7 | 0.90 | 5.9 | 140 | -- | -- | -- |
| | | 07/15/99 | 16.58 | 16.56 | -- | 290[10] | 3.3 | 3.6 | 1.7 | 2.5 | 13 | -- | -- | -- |
| | | 01/07/00 | 17.84 | 15.30 | -- | ND[9] | 890 | 91 | 100 | 480 | 20,000 | -- | -- | -- |
| | | 07/19/00 | 18.92 | 14.22 | -- | 354[12] | 3.87 | 2.61 | 0.646 | ND | 13.7 | -- | -- | -- |
| | | 01/02/01 | 19.07 | 14.07 | -- | 464[12] | ND | 3.69 | 3.91 | ND | 21.1 | -- | -- | -- |
| | | 05/23/01 | 17.12 | 16.02 | -- | 420[11] | 7.6 | 3.1 | 3.0 | 5.1 | 1,900 | -- | -- | -- |
| | | **07/30/01** | **17.38** | **15.76** | -- | **290[12]** | **4.6** | **4.1** | **<0.50** | **3.4** | **23** | -- | -- | -- |
| **MW-4** | | 10/19/92 | -- | -- | -- | 480 | 0.51 | 2.1 | 2.8 | 6.8 | -- | -- | -- | -- |
| 33.12 | | 12/21/92 | 19.73 | 13.39 | -- | 220[4] | ND | ND | 0.97 | 0.74 | -- | -- | -- | -- |
| | | 04/28/93 | -- | -- | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 07/23/93 | 18.72 | 14.40 | -- | 85[4] | ND | ND | ND | ND | -- | -- | -- | -- |
| 32.71 | | 10/05/93 | 18.74 | 13.97 | -- | 130[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 01/03/94 | 18.93 | 13.78 | -- | 210 | ND | ND | 0.76 | 1.6 | 240 | 9.0 | 1.0 | ND |
| | | 04/02/94 | 18.53 | 14.18 | -- | 89 | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 07/05/94 | 17.67 | 15.04 | -- | 190[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/06/94 | 19.25 | 13.46 | -- | 170 | 0.85 | ND | ND | 0.74 | -- | -- | -- | -- |
| | | 01/02/95 | 17.75 | 14.96 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 04/03/95 | 15.87 | 16.84 | -- | 98[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 07/14/95 | 17.01 | 15.70 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/10/95 | 18.03 | 14.68 | -- | ND | ND | ND | ND | ND | 120 | -- | -- | -- |
| | | 01/03/96[7] | 18.05 | 14.66 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 04/10/96 | 16.00 | 16.71 | -- | ND | ND | ND | ND | ND | 240 | -- | -- | -- |
| | | 07/09/96 | 16.96 | 15.75 | -- | ND | ND | ND | ND | ND | 480 | -- | -- | -- |
| | | 01/24/97 | 16.04 | 16.67 | -- | ND | ND | ND | ND | ND | 270 | -- | -- | -- |
| | | 07/23/97 | 17.87 | 14.84 | -- | ND | ND | ND | ND | ND | 460 | -- | -- | -- |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-4 | NP | 01/26/98 | 16.05 | 16.66 | -- | ND | ND | ND | ND | ND | 17 | -- | -- | -- |
| (cont) | NP | 07/03/98 | 16.95 | 15.76 | -- | ND | ND | ND | ND | ND | 3.8 | -- | -- | -- |
| | | 01/14/99 | 17.34 | 15.37 | -- | ND | ND | ND | ND | ND | 4,600 | -- | -- | -- |
| | | 07/15/99 | 16.36 | 16.35 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 01/07/00 | 17.81 | 14.90 | -- | ND | ND | ND | ND | ND | 450 | -- | -- | -- |
| | | 07/19/00 | 18.94 | 13.77 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 01/02/01 | 18.85 | 13.86 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 05/23/01 | 16.82 | 15.89 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | **07/30/01** | **16.88** | **15.83** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **4.9** | **--** | **--** | **--** |
| **MW-5** | | 10/19/92 | -- | -- | -- | 2,700 | 61 | 5.0 | 100 | 61 | -- | -- | -- | -- |
| 33.25 | | 12/21/92 | 19.75 | 13.50 | -- | 1,700 | 51 | 4.7 | 83 | 34 | -- | -- | -- | -- |
| | | 04/28/93 | -- | -- | -- | 6,700 | 200 | 190 | 250 | 430 | -- | -- | -- | -- |
| | | 07/23/93 | 18.74 | 14.51 | -- | 2,000 | 122 | 8.0 | 68 | 47 | -- | -- | -- | -- |
| 32.95 | | 10/05/93 | 18.83 | 14.12 | -- | 1,700 | 70 | 6.2 | 54 | 40 | -- | -- | -- | -- |
| | | 01/03/94 | 19.05 | 13.90 | -- | 1,500 | 44 | ND | 42 | 46 | -- | -- | -- | -- |
| | | 04/02/94 | 18.68 | 14.27 | -- | 1,800 | 46 | 5.1 | 38 | 35 | -- | -- | -- | -- |
| | | 07/05/94 | 17.90 | 15.05 | -- | 2,200 | 97 | 8.4 | 37 | 36 | -- | -- | -- | -- |
| | | 10/06/94 | 19.37 | 13.58 | -- | 1,600 | 79 | 5.7 | 28 | 22 | -- | -- | -- | -- |
| | | 01/02/95 | 17.92 | 15.03 | -- | 1,700 | 50 | 8.6 | 30 | 28 | -- | -- | -- | -- |
| | | 04/03/95 | 16.15 | 16.80 | -- | 5,400[5] | 190 | 240 | 170 | 420 | -- | -- | -- | -- |
| | | 07/14/95 | 17.18 | 15.77 | -- | 3,800 | 210 | 100 | 130 | 190 | -- | -- | -- | -- |
| | | 10/10/95 | 18.15 | 14.80 | -- | 1,300 | 92 | 14 | 15 | 39 | 1,100 | -- | -- | -- |
| | | 01/03/96[7] | 18.20 | 14.75 | -- | 630 | 53 | 4.4 | 8.3 | 13 | -- | -- | -- | -- |
| | | 04/10/96 | 16.05 | 16.90 | -- | 500 | 25 | 18 | 7.0 | 20 | 640 | -- | -- | -- |
| | | 07/09/96 | 17.11 | 15.84 | -- | 1,000 | 44 | 20 | 10 | 34 | 150 | -- | -- | -- |
| | | 01/24/97 | 16.36 | 16.59 | -- | 4,000 | 190 | 400 | 160 | 430 | 600 | -- | -- | -- |
| | | 07/23/97 | 18.08 | 14.87 | -- | 1,700 | 200 | 23 | 18 | 45 | 2,500 | -- | -- | -- |
| | NP | 01/26/98 | 16.27 | 16.68 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | NP | 07/03/98 | 17.27 | 15.68 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |

# Table 1

**Groundwater Monitoring Data and Analytical Results**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-5 | | 01/14/99 | 17.55 | 15.40 | -- | 330 | 61 | 4.1 | 2.2 | 2.9 | 560 | -- | -- | -- |
| (cont) | | 07/15/99 | 16.41 | 16.54 | -- | 1,100 | 170 | ND[9] | ND[9] | 27 | 660 | -- | -- | -- |
| | | 01/07/00 | 17.85 | 15.10 | -- | 1,000[11] | 180 | 6.3 | ND[9] | 14 | 430 | -- | -- | -- |
| | | 07/19/00 | 18.87 | 14.08 | -- | 2,980[11] | 289 | 57.3 | 65.3 | 43.4 | 976 | -- | -- | -- |
| | | 10/03/00 | 18.47 | 14.48 | -- | -- | -- | -- | -- | -- | --/553[13] | -- | -- | -- |
| | | 01/02/01 | 19.01 | 13.94 | -- | 1,150[11] | 87.2 | 17.8 | 7.97 | 9.32 | 368 | -- | -- | -- |
| | | 05/23/01 | 17.38 | 15.57 | -- | 840[11] | 42 | 10 | 13 | 7.1 | 130 | -- | -- | -- |
| | | **07/30/01** | **17.12** | **15.83** | **--** | **1,900[12]** | **82** | **24** | **6.9** | **13** | **370** | **--** | **--** | **--** |
| **MW-6** | | 10/19/92 | -- | -- | -- | 3,900 | 420 | 12 | 60 | 28 | -- | -- | -- | -- |
| 32.42 | | 12/21/92 | 19.17 | 13.25 | -- | 2,300 | 370 | 11 | 39 | 15 | -- | -- | -- | -- |
| | | 04/28/93 | -- | -- | -- | 1,200 | 54 | 1.5 | 11 | 5.3 | -- | -- | -- | -- |
| | | 07/23/93 | 18.17 | 14.25 | -- | 580 | 19 | 0.99 | 3.4 | 2.7 | -- | -- | -- | -- |
| 32.16 | | 10/05/93 | 18.35 | 13.81 | -- | 1,400 | 34 | ND | 5.3 | 7.3 | -- | -- | -- | -- |
| | | 01/03/94 | 18.54 | 13.62 | -- | 1,400 | 57 | ND | 8.5 | 11 | -- | -- | -- | -- |
| | | 04/02/94 | 18.15 | 14.01 | -- | 5,300[4] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 07/05/94 | 17.25 | 14.91 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/06/94 | 18.85 | 13.31 | -- | 11,000[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 01/02/95 | 17.51 | 14.65 | -- | 550 | 18 | 0.92 | 2.0 | 1.8 | -- | -- | -- | -- |
| | | 04/03/95 | 15.48 | 16.68 | -- | 6,600[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 07/14/95 | 16.63 | 15.53 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/10/95 | 17.68 | 14.48 | -- | ND | 81 | ND | ND | ND | 75,000 | -- | -- | -- |
| | | 01/03/96[7] | 17.66 | 14.50 | -- | 70 | 9.9 | 0.58 | ND | 0.81 | -- | -- | -- | -- |
| | | 04/10/96 | 15.56 | 16.60 | -- | 300 | 25 | 4.7 | 0.94 | 2.7 | 53,000 | -- | -- | -- |
| | | 07/09/96 | 16.59 | 15.57 | -- | 1,800 | 410 | ND | 12 | ND | 76,000 | -- | -- | -- |
| | | 01/24/97 | 15.69 | 16.47 | -- | ND | 0.80 | ND | ND | ND | 390 | -- | -- | -- |
| | | 07/23/97 | 17.53 | 14.63 | -- | 5,700 | 1,100 | 240 | 240 | 700 | 16,000 | -- | -- | -- |
| | NP | 01/26/98 | 15.44 | 16.72 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | NP | 07/03/98 | 16.58 | 15.58 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 01/14/99 | 17.02 | 15.14 | -- | ND | ND | ND | ND | ND | 14 | -- | -- | -- |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-6 | | 07/15/99 | 15.95 | 16.21 | -- | ND | ND | ND | ND | ND | 2.8 | -- | -- | -- |
| (cont) | | 01/07/00 | 16.96 | 15.20 | -- | 78[11] | 24 | ND | 0.66 | 17 | 280 | -- | -- | -- |
| | | 07/19/00 | 18.04 | 14.12 | -- | ND | ND | 1.32 | ND | 0.974 | ND | -- | -- | -- |
| | | 01/02/01 | 18.10 | 14.06 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 05/23/01 | 16.42 | 15.74 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | **07/30/01** | **16.49** | **15.67** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **<2.5** | **--** | **--** | **--** |
| **MW-7** | | | | | | | | | | | | | | |
| 32.49 | | 04/28/93 | -- | -- | -- | 110 | 2.8 | 1.3 | 1.4 | 1.7 | -- | -- | -- | -- |
| | | 07/23/93 | 18.60 | 13.89 | -- | 790 | 23 | 3.3 | 28 | 5.4 | -- | -- | -- | -- |
| 32.20 | | 10/05/93 | 18.76 | 13.44 | -- | 360 | 10 | 1.2 | 0.91 | 0.99 | -- | -- | -- | -- |
| | | 01/03/94 | 18.91 | 13.29 | -- | ND | 0.93 | ND | 0.75 | 1.9 | -- | -- | -- | -- |
| | | 04/02/94 | 18.50 | 13.70 | -- | 360 | 2.0 | ND | ND | 0.8 | -- | -- | -- | -- |
| | | 07/05/94 | 17.52 | 14.68 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 10/06/94 | 19.25 | 12.95 | -- | 340 | 5.6 | 0.85 | ND | 1.2 | -- | -- | -- | -- |
| | | 01/02/95 | 17.67 | 14.53 | -- | ND | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 04/03/95 | 15.81 | 16.39 | -- | 570 | 24 | ND | 3.4 | 5.8 | -- | -- | -- | -- |
| | | 07/14/95 | 17.05 | 15.15 | -- | ND | 14 | ND | ND | ND | -- | -- | -- | -- |
| | | 10/10/95 | 18.08 | 14.12 | -- | 740 | 170 | ND | ND | ND | 13,000 | -- | -- | -- |
| | | 01/03/96[7] | 18.02 | 14.18 | -- | 360 | 16 | 1.3 | 2.7 | 1.4 | -- | -- | -- | -- |
| | | 04/10/96 | 15.81 | 16.39 | -- | 120 | 4.1 | 1.5 | ND | 0.88 | 3,200 | -- | -- | -- |
| | | 07/09/96 | 16.99 | 15.21 | -- | ND | ND | ND | ND | ND | 3,400 | -- | -- | -- |
| | | 01/24/97 | 16.08 | 16.12 | -- | ND | 16 | ND | ND | ND | 6,600 | -- | -- | -- |
| | | 07/23/97 | 17.99 | 14.21 | -- | ND | 1.5 | ND | ND | 0.62 | 10,000 | -- | -- | -- |
| | NP | 01/26/98 | 15.56 | 16.64 | -- | ND | ND | ND | ND | 0.56 | ND | -- | -- | -- |
| | NP | 07/03/98 | 17.04 | 15.16 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 01/14/99 | INACCESSIBLE (PARKED CAR) | | | -- | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 1

**Groundwater Monitoring Data and Analytical Results**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-7 | | 07/15/99 | 15.72 | 16.48 | -- | ND | ND | ND | ND | ND | 290 | -- | -- | -- |
| (cont) | | 01/07/00 | 16.80 | 15.40 | -- | ND | 7.7 | ND | ND | 4.4 | 98 | -- | -- | -- |
| | | 07/19/00 | 17.88 | 14.32 | -- | ND | ND | 1.27 | ND | 0.979 | ND | -- | -- | -- |
| | | 01/02/01 | 17.97 | 14.23 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 05/23/01 | 16.81 | 15.39 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | **07/30/01** | **16.79** | **15.41** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **<2.5** | **--** | **--** | **--** |
| **MW-8** | | | | | | | | | | | | | | |
| 32.33 | | 04/28/93 | -- | -- | -- | 450 | 18 | 1.8 | 1.8 | 1.4 | -- | -- | -- | -- |
| | | 07/23/93 | 18.45 | 13.88 | -- | 260 | 5.1 | ND | 0.6 | ND | -- | -- | -- | -- |
| 32.00 | | 10/05/93 | 18.57 | 13.43 | -- | 120[5] | 1.7 | ND | ND | ND | -- | -- | -- | -- |
| | | 01/03/94[1] | 18.73 | 13.27 | -- | ND | ND | ND | ND | ND | 51 | 1.5 | 1.2 | ND |
| | | 04/02/94 | 18.30 | 13.70 | -- | 150 | 1.2 | ND | ND | ND | -- | -- | -- | -- |
| | | 07/05/94 | 17.41 | 14.59 | -- | 730 | 17 | ND | 1.6 | ND | -- | -- | -- | -- |
| | | 10/06/94 | 18.98 | 13.02 | -- | 140[5] | ND | ND | ND | ND | -- | -- | -- | -- |
| | | 01/02/95 | 17.58 | 14.42 | -- | 440 | 18 | 0.72 | 2.0 | 1.8 | -- | -- | -- | -- |
| | | 04/03/95 | 15.54 | 16.46 | -- | 960 | 11 | ND | ND | ND | -- | -- | -- | -- |
| | | 07/14/95 | 16.81 | 15.19 | -- | 280 | 4.2 | 2.6 | 1.1 | 3.3 | -- | -- | -- | -- |
| | | 10/10/95 | 17.85 | 14.15 | -- | 110 | 1.3 | 0.62 | 0.67 | ND | 170 | -- | -- | -- |
| | | 01/03/96[7] | 17.82 | 14.18 | -- | 63 | ND | 0.51 | ND | 1.8 | -- | -- | -- | -- |
| | | 04/10/96 | 15.70 | 16.30 | -- | ND | 1.1 | 0.61 | ND | ND | 60 | -- | -- | -- |
| | | 07/09/96 | 16.78 | 15.22 | -- | 72 | 1.0 | ND | ND | ND | 140 | -- | -- | -- |
| | | 01/24/97 | 15.79 | 16.21 | -- | ND | ND | ND | ND | ND | 76 | -- | -- | -- |
| | | 07/23/97 | 17.69 | 14.31 | -- | ND | ND | ND | ND | ND | 270 | -- | -- | -- |
| | NP | 01/26/98 | 15.50 | 16.50 | -- | ND | ND | ND | ND | 0.76 | 2.9 | -- | -- | -- |
| | NP | 07/03/98 | 16.80 | 15.20 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | | 01/14/99 | 17.13 | 14.87 | -- | ND | ND | ND | ND | ND | 11 | -- | -- | -- |

# Table 1

**Groundwater Monitoring Data and Analytical Results**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID/ TOC* | DATE | DTW (ft.) | GWE (msl) | TPH-D (ppb) | TPH-G (ppb) | B (ppb) | T (ppb) | E (ppb) | X (ppb) | MTBE (ppb) | Chloro-form** (ppb) | PCE** (ppb) | TCE** (ppb) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-8 | 07/15/99 | 15.85 | 16.15 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| (cont) | 01/07/00 | 16.94 | 15.06 | -- | ND | ND | ND | ND | ND | 11 | -- | -- | -- |
| | 07/19/00 | 18.06 | 13.94 | -- | ND | ND | 2.99 | 0.521 | ND | ND | -- | -- | -- |
| | 01/02/01 | 18.12 | 13.88 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 05/23/01 | 16.96 | 15.04 | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | **07/30/01** | **16.52** | **15.48** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **2.7** | **--** | **--** | **--** |
| **Trip Blank** | | | | | | | | | | | | | |
| TB-LB | 01/26/98 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 07/03/98 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 01/14/99 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 07/15/99 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 01/07/00 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 07/19/00 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 01/02/01 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | 05/23/01 | -- | -- | -- | ND | ND | ND | ND | ND | ND | -- | -- | -- |
| | **07/30/01** | **--** | **--** | **--** | **<50** | **<0.50** | **<0.50** | **<0.50** | **<0.50** | **<2.5** | **--** | **--** | **--** |

# Table 1

## Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to January 26, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
(msl) = Mean sea level
TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether
PCE = Tetrachloroethene
TCE = Trichloroethene
(ppb) = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed
NP = No Purge

* TOC elevations are relative to msl, per the City of Oakland benchmark disk stamped "25/A" at the northeast corner of 7th and Harrison (Elevation = 28.81 feet, msl). Prior to October 5, 1993, the DTW measurements were taken from the top of well covers.

** All EPA Method 8010 constituents were ND, except as indicated below.

1 1,2-Dichloroethane (1,2-DCA) was detected in MW-8 at a concentration of 4.0 ppb on 01/03/94, and 1.1 ppb in MW-1 on 04/28/93.

2 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

3 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

4 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

5 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

6 A fuel fingerprint analysis was conducted on this sample. Laboratory report indicates total extractable petroleum hydrocarbons in this sample were not detected in high enough concentrations to compare with known standards and approximate their makeup.

7 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.

8 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C8.

9 Detection limit raised. Refer to analytical reports.

10 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.

11 Laboratory report indicates gasoline C6-C12.

12 Laboratory report indicates unidentified hydrocarbons C6-C12.

13 MTBE by EPA Method 8260.

# Table 2

**Groundwater Analytical Results - Oxygenate Compounds**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID | DATE | TBA (ppb) | MTBE (ppb) | DIPE (ppb) | ETBE (ppb) | TAME (ppb) | 1,2-DCA (ppb) | EDB (ppb) |
|---|---|---|---|---|---|---|---|---|
| MW-5 | 10/03/00 | ND[1] | 553 | ND[1] | ND[1] | ND[1] | ND[1] | ND[1] |

**EXPLANATIONS:**

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

(ppb) = Parts per billion

ND = Not Detected

[1] Detection limit raised. Refer to analytical reports.

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

# Table 3

## Groundwater Analytical Results

Tosco (Unocal) Service Station #0752
800 Harrison Street
Oakland, California

| WELL ID | DATE | TOG (ppm) | Cadmium (ppm) | Chromium (ppm) | Lead (ppm) | Nickel (ppm) | Zinc (ppm) |
|---|---|---|---|---|---|---|---|
| MW-1 | 06/05/91 | ND | ND | 0.0083 | 0.011 | 0.063 | 0.023 |
| | 09/30/91 | ND | ND | 0.019 | ND | ND | 0.11 |
| | 12/30/91 | ND | ND | 0.0078 | 0.0057 | ND | 0.046 |
| | 04/02/92 | ND | ND | 0.015 | 0.016 | ND | 0.02 |
| | 06/30/92 | ND | ND | 0.079 | 0.009 | 0.1 | 0.087 |

**EXPLANATIONS:**

Groundwater laboratory analytical results were compiled from reports prepared by MPDS Services, Inc.

TOG = Total Oil and Grease
(ppm) = Parts per million
ND = Not Detected

# Table 4

**Groundwater Analytical Results**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID | DATE | BOD (ppm) | Bicarbonate Alkalinity (ppm) | Calcium (ppm) | Iron (ppm) | Manganese (ppm) | Nitrate (ppm) | Sulfate (ppm) | Heterotrophic Plate Count (CFU/mL) |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 04/10/96 | -- | 160 | 21 | 15 | 2.6 | -- | -- | -- |
| MW-2 | 01/03/96 | 2.2 | 130 | 27 | 77 | 3.0 | 0.22 | 97 | >5,700 |
| | 04/10/96 | -- | 460 | 58 | 60 | 7.0 | -- | -- | -- |
| MW-3 | 01/03/96 | 4.3 | 430 | 43 | 61 | 5.4 | 0.23 | 16 | 350 |
| | 04/10/96 | -- | 360 | 40 | 60 | 3.7 | -- | -- | -- |
| MW-4 | 01/03/96 | ND | 120 | 20 | 61 | 3.3 | 10 | 44 | 1,000 |
| | 04/10/96 | -- | 160 | 25 | 43 | 2.0 | -- | -- | -- |
| MW-5 | 01/03/96 | 3.4 | 240 | 31 | 80 | 3.3 | ND | 17 | >5,700 |
| | 04/10/96 | -- | 240 | 22 | 18 | 2.4 | -- | -- | -- |
| MW-6 | 04/10/96 | -- | 240 | 35 | 61 | 3.7 | -- | -- | -- |
| MW-7 | 04/10/96 | -- | 210 | 44 | 120 | 4.8 | -- | -- | -- |
| MW-8 | 01/03/96 | ND | 310 | 37 | 62 | 3.3 | 0.57 | 20 | >5,700 |
| | 04/10/96 | -- | 380 | 37 | 63 | 3.6 | -- | -- | -- |

# Table 4

## Groundwater Analytical Results

Tosco (Unocal) Service Station #0752
880 Harrison Street
Oakland, California

**EXPLANATIONS:**

Groundwater laboratory analytical results were compiled from reports prepared by MPDS Services, Inc.

BOD = Biochemical Oxygen Demand
(ppm) = Parts per million
(CFU/mL) = Colony Forming Units per milliliter
-- = Not Analyzed
ND = Not Detected

# Table 5

**Dissolved Oxygen Concentrations**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID | DATE | Before Purging (mg/L) | After Purging (mg/L) |
|---|---|---|---|
| MW-1 | 04/10/96 | -- | 3.04 |
| | 07/09/96 | -- | 3.13 |
| | 01/24/97 | -- | 2.56 |
| | 07/23/97 | 2.26 | 2.81 |
| | 01/26/98 | 3.97 | -- |
| | 07/03/98 | 3.58 | -- |
| MW-2 | 01/03/96 | | 1.80 |
| | 04/10/96 | -- | 5.88 |
| | 07/09/96 | -- | 0.71 |
| | 01/24/97 | -- | 2.37 |
| | 07/23/97 | 1.40 | 0.97 |
| | 01/26/98 | 4.12 | -- |
| | 07/03/98 | 3.99 | -- |
| MW-3 | 01/03/96 | | 1.50 |
| | 04/10/96 | -- | 4.63 |
| | 07/09/96 | -- | 1.04 |
| | 01/24/97 | -- | 1.46 |
| | 07/23/97 | 3.84 | 1.37 |
| | 01/26/98 | 1.84 | -- |
| | 07/03/98 | 2.16 | -- |
| MW-4 | 01/03/96 | | 1.20 |
| | 04/10/96 | -- | 5.23 |
| | 07/09/96 | -- | 4.91 |
| | 01/24/97 | -- | 3.04 |
| | 07/23/97 | 9.28 | 3.68 |
| | 01/26/98 | 3.36 | -- |
| | 07/03/98 | 4.07 | -- |
| MW-5 | 01/03/96 | | 2.80 |
| | 04/10/96 | -- | 3.73 |
| | 07/09/96 | -- | 3.25 |
| | 01/24/97 | -- | 1.47 |
| | 07/23/97 | 7.96 | 4.56 |
| | 01/26/98 | 5.30 | -- |
| | 07/03/98 | 4.73 | -- |

# Table 5

**Dissolved Oxygen Concentrations**

Tosco (Unocal) Service Station #0752

800 Harrison Street

Oakland, California

| WELL ID | DATE | Before Purging (mg/L) | After Purging (mg/L) |
|---|---|---|---|
| MW-6 | 04/10/96 | | 4.50 |
| | 07/09/96 | -- | 3.62 |
| | 01/24/97 | -- | 6.21 |
| | 07/23/97 | 10.90 | 3.31 |
| | 01/26/98 | 2.55 | -- |
| | 07/03/98 | 3.11 | -- |
| MW-7 | 04/10/96 | -- | 5.10 |
| | 07/09/96 | -- | 2.34 |
| | 01/24/97 | -- | 1.91 |
| | 07/23/97 | 3.25 | 2.83 |
| | 01/26/98 | 3.44 | -- |
| | 07/03/98 | 3.83 | -- |
| MW-8 | 01/03/96 | -- | 1.30 |
| | 04/10/96 | -- | 4.80 |
| | 07/09/96 | -- | 1.32 |
| | 01/24/97 | -- | 2.09 |
| | 07/23/97 | 4.08 | 3.27 |
| | 01/26/98 | 4.71 | -- |
| | 07/03/98 | 5.16 | -- |

**EXPLANATIONS:**

Dissolved oxygen concentrations prior to January 26, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = Milligrams per liter

-- = Not Measured

# STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

# WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

Well ID MW-1 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 33.47 ft.

Depth to Water 18.56 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

14.91 x VF 0.17 = 2.53 X 3 (case volume) = Estimated Purge Volume: 8 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, (Suction), Grundfos, Other:

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 10:35 Weather Conditions: Clear

Sampling Time: 11:00 A.M (1100) Water Color: clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity µmhos/cm | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 10:43 | 3 | 7.51 | 10.39 | 72.2 | | | |
| 10:45 | 5.5 | 7.48 | 10.47 | 71.6 | | | |
| 10:47 | 8 | 7.43 | 10.48 | 71.5 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-1 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

3/97-Bailer.frm

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

---

Well ID MW-2 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.32 ft.

Depth to Water 18.34 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

11.98 X VF 0.17 = 2.04 X 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / (Suction) / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

---

Starting Time: 10:02 Weather Conditions: Clear

Sampling Time: 10:25 A.m (1025) Water Color: clear Odor: none

Purging Flow Rate: 1 gpm Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity (mmhos/cm) | Temperature (F) | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 10:11 | 2 | 7.27 | 6.59 | 71.6 | | | |
| 10:13 | 4 | 7.34 | 6.56 | 71.7 | | | |
| 10:15 | 6.5 | 7.38 | 6.54 | 72.2 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-2 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

8/97-Bailer.frm

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

---

Well ID MW-3 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.46 ft.

Depth to Water 17.38 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

13.08 x VF 0.17 = 2.22 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / (Suction) / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

---

Starting Time: 11:35 Weather Conditions: Clear

Sampling Time: 11:56 A.m (1156) Water Color: clear Odor: yes

Purging Flow Rate: 1 gpm. Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity (C) µmhos/cm | Temperature F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 11:44 | 2.5 | 7.07 | 3.28 | 72.1 | | | |
| 11:46 | 5 | 6.95 | 3.20 | 72.2 | | | |
| 11:48 | 7 | 7.06 | 3.24 | 71.9 | | | |
| | | | | | | | |
| | | | | | | | |

---

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-3 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

---

Well ID mw-4 Well Condition: o.k.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 32.37 ft.

Depth to Water 16.88 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 | 6" = 1.50 | 12" = 5.80 |
|---|---|---|---|---|---|

15.49 x VF 0.17 = 2.63 x 3 (case volume) = Estimated Purge Volume: 8 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / Suction / Grundfos / Other: _____

Sampling Equipment: Disposable Bailer / Bailer / Pressure Bailer / Grab Sample / Other: _____

---

Starting Time: 8:02 Weather Conditions: Clear

Sampling Time: 8:26 A.m (0826) Water Color: clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description: _____

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

| Time | Volume (gal.) | pH | Conductivity (mmhos/cm) | Temperature (F) | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 8:11 | 2.5 | 7.66 | 10.12 | 73.1 | | | |
| 8:13 | 5 | 7.51 | 10.11 | 72.8 | | | |
| 8:15 | 8 | 7.46 | 10.14 | 72.1 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-4 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS: _____

8/97-Aslact.frm

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

Well ID MW-5 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 31.64 ft.

Depth to Water 17.12 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

14.52 x VF 0.17 = 2.47 X 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / (Suction) / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

Starting Time: 11:08 Weather Conditions: Clear

Sampling Time: 11:28 A.m (1128) Water Color: clear Odor: yes

Purging Flow Rate: 1 gpm. Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity (µmhos/cm) | Temperature (°F) | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 11:15 | 2.5 | 7.10 | 3.12 | 71.6 | | | |
| 11:17 | 5 | 7.11 | 3.16 | 71.6 | | | |
| 11:19 | 7.5 | 7.13 | 3.18 | 71.7 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-5 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

---

Well ID mw-6 Well Condition: o.k.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 30.88 ft.

Depth to Water 16.49 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

14.39 X VF 0.17 = 2.45 X 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other:

Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other:

---

Starting Time: 7:26 Weather Conditions: Clear

Sampling Time: 7:52 A.m (0752) Water Color: clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity (µmhos/cm) | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 7:35 | 2.5 | 7.71 | 9.43 | 72.1 | | | |
| 7:37 | 5 | 7.54 | 9.42 | 72.0 | | | |
| 7:39 | 7.5 | 7.47 | 9.39 | 72.0 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-6 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison St. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

Well ID MW-7 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 31.46 ft.

Depth to Water 16.79 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

14.67 x VF 0.17 = 2.49 X 3 (case volume) = Estimated Purge Volume: 7.5 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; (Suction); Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 9:32 Weather Conditions: Clear

Sampling Time: 9:53 A.M. (0953) Water Color: clear Odor: moderate mild

Purging Flow Rate: 1 gpm Sediment Description:

Did well de-water? If yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity µmhos/cm | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 9:40 | 2.5 | 7.60 | 11.80 | 72.3 | | | |
| 9:42 | 5 | 7.40 | 11.77 | 73.0 | | | |
| 9:44 | 7.5 | 9.49 | 11.76 | 72.1 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-7 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

# WELL MONITORING/SAMPLING
# FIELD DATA SHEET

Client/
Facility # 0752 Job#: 180066

Address: 800 Harrison st. Date: 7-30-01

City: Oakland, CA. Sampler: Joe

---

Well ID mw-8 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)

Total Depth 27.85 ft.

Depth to Water 16.52 ft.

| Volume Factor (VF) | 2" = 0.17 | 3" = 0.38 | 4" = 0.66 |
|---|---|---|---|
| | 6" = 1.50 | 12" = 5.80 | |

11.33 X VF 0.17 = 1.93 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / (Suction) / Grundfos / Other:

Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

---

Starting Time: 9:00 Weather Conditions: Clear

Sampling Time: 9:21 A.m (0921) Water Color: clear Odor: mild

Purging Flow Rate: 1 gpm. Sediment Description:

Did well de-water? Yes; Time: Volume: (gal.)

| Time | Volume (gal.) | pH | Conductivity (µmhos/cm) | Temperature °F | D.O. (mg/L) | ORP (mV) | Alkalinity (ppm) |
|---|---|---|---|---|---|---|---|
| 9:07 | 2 | 7.40 | 10.68 | 71.9 | | | |
| 9:08 | 4 | 7.36 | 10.66 | 72.0 | | | |
| 9:10 | 6 | 7.44 | 10.61 | 72.4 | | | |
| | | | | | | | |
| | | | | | | | |

## LABORATORY INFORMATION

| SAMPLE ID | (#) - CONTAINER | REFRIG. | PRESERV. TYPE | LABORATORY | ANALYSES |
|---|---|---|---|---|---|
| MW-8 | 3 VOA | Y | HCL | Seq. | TPHG, BTEX, MTBE |
| | | | | | |
| | | | | | |
| | | | | | |

COMMENTS:

Chain of Custody Record

TOSCO

Tosco Marketing Company
2000 Crow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: UNOCAL SS #0752
Facility Address: 800 HARRISON STREET, OAKLAND CA
Consultant Project Number: 180066.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name): MR. DAVID DEWITT
(Phone): (925) 277-2384
Laboratory Name: Sequoia Analytical
Laboratory Release Number:
Samples Collected by (Name): JOE AJEMIAN
Collection Date: 7-30-01
Signature:

| Sample Number | Lab Sample Number | Number of Containers | Matrix: S = Soil, A = Air, W = Water, C = Charcoal | Type: G = Grab, C = Composite, D = Discrete | Time | Sample Preservation | Iced (Yes or No) | Analyses To Be Performed: TPH G+++ BTEX w/MTBE (8015) (8020) | TPH Diesel (8015) | Oil and Grease (5520) | Purgeable Halocarbons (8010) | Purgeable Aromatics (8020) | Purgeable Organics (8240) | Extractable Organics (8270) | Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA) | | | | | | DO NOT BILL TB-LB ANALYSIS — Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TB-LB | 01 | 1 VOA | W | G | — | HCL | Y | ✓ | | | | | | | | | | | | | 4107254 |
| MW-1 | 02 | 3 VOA | " | " | 1100 | " | " | ✓ | | | | | | | | | | | | | |
| MW-2 | 03 | 1 | " | " | 1025 | " | " | ✓ | | | | | | | | | | | | | |
| MW-3 | 04 | " | " | " | 1156 | " | " | ✓ | | | | | | | | | | | | | |
| MW-4 | 05 | " | " | " | 0826 | " | " | ✓ | | | | | | | | | | | | | |
| MW-5 | 06 | " | " | " | 1128 | " | " | ✓ | | | | | | | | | | | | | |
| MW-6 | 07 | " | " | " | 0752 | " | " | ✓ | | | | | | | | | | | | | |
| MW-7 | 08 | " | " | " | 0953 | " | " | ✓ | | | | | | | | | | | | | |
| MW-8 | 09 | " | " | " | 0921 | " | " | ✓ | | | | | | | | | | | | | |

| Relinquished By (Signature) | Organization | Date/Time | Received By (Signature) | Organization | Date/Time |
|---|---|---|---|---|---|
| | G-R Inc. | 7-30-01 1400 | | | 7/30/01 1400 |
| Relinquished By (Signature) | Organization | Date/Time | Received By (Signature) | Organization | Date/Time |
| Relinquished By (Signature) | Organization | Date/Time | Received For Laboratory By (Signature) | | Date/Time |

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

**Sequoia Analytical**

1551 Industrial Road
San Carlos, CA 94070
(650) 232-9600
FAX (650) 232-9612
www.sequoialabs.com



14 August, 2001

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568

RE: Tosco(1)
Sequoia Report: L107254

Enclosed are the results of analyses for samples received by the laboratory on 07/30/01 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya K. Pelt

Latonya Pelt
Project Manager

CA ELAP Certificate #2360

Sequoia Analytical

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San Carlos CA 94070
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| | | |
|---|---|---|
| Gettler-Ryan/Geostrategies(1)<br>6747 Sierra Court, Suite J<br>Dublin CA, 94568 | Project: Tosco(1)<br>Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan<br>Project Manager: Deanna Harding | **Reported:**<br>08/14/01 13:54 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| TB-LB | L107254-01 | Water | 07/30/01 00:00 | 07/30/01 14:00 |
| MW-1 | L107254-02 | Water | 07/30/01 11:00 | 07/30/01 14:00 |
| MW-2 | L107254-03 | Water | 07/30/01 10:25 | 07/30/01 14:00 |
| MW-3 | L107254-04 | Water | 07/30/01 11:56 | 07/30/01 14:00 |
| MW-4 | L107254-05 | Water | 07/30/01 08:26 | 07/30/01 14:00 |
| MW-5 | L107254-06 | Water | 07/30/01 11:28 | 07/30/01 14:00 |
| MW-6 | L107254-07 | Water | 07/30/01 07:52 | 07/30/01 14:00 |
| MW-7 | L107254-08 | Water | 07/30/01 09:53 | 07/30/01 14:00 |
| MW-8 | L107254-09 | Water | 07/30/01 09:21 | 07/30/01 14:00 |

Sequoia Analytical - San Carlos

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Latonya K. Pelt

Latonya Pelt, Project Manager

Sequoia Analytical

1551 Industrial Road
San Carlos CA 94070
(650) 232-9600
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www.sequoialabs.com

| | | |
|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **TB-LB (L107254-01) Water Sampled: 07/30/01 00:00 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H09002 | 08/09/01 | 08/09/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *86.9 %* | *70-130* | | " | " | " | " | |
| **MW-1 (L107254-02) Water Sampled: 07/30/01 11:00 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H09002 | 08/09/01 | 08/09/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **350** | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *91.5 %* | *70-130* | | " | " | " | " | |
| **MW-2 (L107254-03) Water Sampled: 07/30/01 10:25 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H13002 | 08/13/01 | 08/13/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **67** | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *100 %* | *70-130* | | " | " | " | " | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-3 (L107254-04) Water Sampled: 07/30/01 11:56 Received: 07/30/01 14:00** | | | | | | | | | |
| **Purgeable Hydrocarbons** | **290** | 50 | ug/l | 1 | 1H13002 | 08/13/01 | 08/13/01 | DHS LUFT | P-03 |
| **Benzene** | **4.6** | 0.50 | " | " | " | " | " | " | |
| **Toluene** | **4.1** | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| **Xylenes (total)** | **3.4** | 0.50 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **23** | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *113 %* | *70-130* | | " | " | " | " | |
| **MW-4 (L107254-05) Water Sampled: 07/30/01 08:26 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H13003 | 08/13/01 | 08/13/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **4.9** | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *86.1 %* | *70-130* | | " | " | " | " | |
| **MW-5 (L107254-06) Water Sampled: 07/30/01 11:28 Received: 07/30/01 14:00** | | | | | | | | | |
| **Purgeable Hydrocarbons** | **1900** | 120 | ug/l | 2.5 | 1H13003 | 08/13/01 | 08/13/01 | DHS LUFT | P-03 |
| **Benzene** | **82** | 1.2 | " | " | " | " | " | " | |
| **Toluene** | **24** | 1.2 | " | " | " | " | " | " | |
| **Ethylbenzene** | **6.9** | 1.2 | " | " | " | " | " | " | |
| **Xylenes (total)** | **13** | 1.2 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **370** | 6.2 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *111 %* | *70-130* | | " | " | " | " | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **MW-6 (L107254-07) Water Sampled: 07/30/01 07:52 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H10002 | 08/10/01 | 08/10/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *88.4 %* | | *70-130* | " | " | " | " | |
| **MW-7 (L107254-08) Water Sampled: 07/30/01 09:53 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H10002 | 08/10/01 | 08/10/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| Methyl tert-butyl ether | ND | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *88.6 %* | | *70-130* | " | " | " | " | |
| **MW-8 (L107254-09) Water Sampled: 07/30/01 09:21 Received: 07/30/01 14:00** | | | | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | 1 | 1H13003 | 08/13/01 | 08/13/01 | DHS LUFT | |
| Benzene | ND | 0.50 | " | " | " | " | " | " | |
| Toluene | ND | 0.50 | " | " | " | " | " | " | |
| Ethylbenzene | ND | 0.50 | " | " | " | " | " | " | |
| Xylenes (total) | ND | 0.50 | " | " | " | " | " | " | |
| **Methyl tert-butyl ether** | **2.7** | 2.5 | " | " | " | " | " | " | |
| *Surrogate: a,a,a-Trifluorotoluene* | | *87.5 %* | | *70-130* | " | " | " | " | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1H09002 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (1H09002-BLK1)** | | | | Prepared & Analyzed: 08/09/01 | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.49* | | " | *10.0* | | *94.9* | *70-130* | | | |
| **LCS (1H09002-BS1)** | | | | Prepared & Analyzed: 08/09/01 | | | | | | |
| Benzene | 10.1 | 0.50 | ug/l | 10.0 | | 101 | 70-130 | | | |
| Toluene | 9.82 | 0.50 | " | 10.0 | | 98.2 | 70-130 | | | |
| Ethylbenzene | 10.0 | 0.50 | " | 10.0 | | 100 | 70-130 | | | |
| Xylenes (total) | 29.9 | 0.50 | " | 30.0 | | 99.7 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.20* | | " | *10.0* | | *92.0* | *70-130* | | | |
| **LCS (1H09002-BS2)** | | | | Prepared & Analyzed: 08/09/01 | | | | | | |
| Purgeable Hydrocarbons | 255 | 50 | ug/l | 250 | | 102 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *10.0* | | " | *10.0* | | *100* | *70-130* | | | |
| **Batch 1H10002 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (1H10002-BLK1)** | | | | Prepared & Analyzed: 08/10/01 | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *8.46* | | " | *10.0* | | *84.6* | *70-130* | | | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1H10002 - EPA 5030B [P/T]** | | | | | | | | | | |
| **LCS (1H10002-BS1)** | | | | Prepared & Analyzed: 08/10/01 | | | | | | |
| Benzene | 9.22 | 0.50 | ug/l | 10.0 | | 92.2 | 70-130 | | | |
| Toluene | 8.59 | 0.50 | " | 10.0 | | 85.9 | 70-130 | | | |
| Ethylbenzene | 8.75 | 0.50 | " | 10.0 | | 87.5 | 70-130 | | | |
| Xylenes (total) | 26.8 | 0.50 | " | 30.0 | | 89.3 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *8.78* | | " | *10.0* | | *87.8* | *70-130* | | | |
| **LCS (1H10002-BS2)** | | | | Prepared & Analyzed: 08/10/01 | | | | | | |
| Purgeable Hydrocarbons | 229 | 50 | ug/l | 250 | | 91.6 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.37* | | " | *10.0* | | *93.7* | *70-130* | | | |
| **Matrix Spike (1H10002-MS1)** | | **Source: L107254-07** | | Prepared & Analyzed: 08/10/01 | | | | | | |
| Purgeable Hydrocarbons | 229 | 50 | ug/l | 250 | ND | 91.6 | 60-140 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.63* | | " | *10.0* | | *96.3* | *70-130* | | | |
| **Matrix Spike Dup (1H10002-MSD1)** | | **Source: L107254-07** | | Prepared & Analyzed: 08/10/01 | | | | | | |
| Purgeable Hydrocarbons | 225 | 50 | ug/l | 250 | ND | 90.0 | 60-140 | 1.76 | 25 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.74* | | " | *10.0* | | *97.4* | *70-130* | | | |
| **Batch 1H13002 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (1H13002-BLK1)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.49* | | " | *10.0* | | *94.9* | *70-130* | | | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1H13002 - EPA 5030B [P/T]** | | | | | | | | | | |
| **LCS (1H13002-BS1)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Benzene | 10.2 | 0.50 | ug/l | 10.0 | | 102 | 70-130 | | | |
| Toluene | 9.93 | 0.50 | " | 10.0 | | 99.3 | 70-130 | | | |
| Ethylbenzene | 10.1 | 0.50 | " | 10.0 | | 101 | 70-130 | | | |
| Xylenes (total) | 30.3 | 0.50 | " | 30.0 | | 101 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.71* | | " | *10.0* | | *97.1* | *70-130* | | | |
| **LCS (1H13002-BS2)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | 225 | 50 | ug/l | 250 | | 90.0 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *10.1* | | " | *10.0* | | *101* | *70-130* | | | |
| **Matrix Spike (1H13002-MS1)** | | Source: MKH0179-01 | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | 218 | 50 | ug/l | 250 | ND | 87.2 | 60-140 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *11.1* | | " | *10.0* | | *111* | *70-130* | | | |
| **Matrix Spike Dup (1H13002-MSD1)** | | Source: MKH0179-01 | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | 228 | 50 | ug/l | 250 | ND | 91.2 | 60-140 | 4.48 | 25 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *10.9* | | " | *10.0* | | *109* | *70-130* | | | |
| **Batch 1H13003 - EPA 5030B [P/T]** | | | | | | | | | | |
| **Blank (1H13003-BLK1)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | ND | 50 | ug/l | | | | | | | |
| Benzene | ND | 0.50 | " | | | | | | | |
| Toluene | ND | 0.50 | " | | | | | | | |
| Ethylbenzene | ND | 0.50 | " | | | | | | | |
| Xylenes (total) | ND | 0.50 | " | | | | | | | |
| Methyl tert-butyl ether | ND | 2.5 | " | | | | | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *8.40* | | " | *10.0* | | *84.0* | *70-130* | | | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1) | Project: Tosco(1) | |
| 6747 Sierra Court, Suite J | Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan | **Reported:** |
| Dublin CA, 94568 | Project Manager: Deanna Harding | 08/14/01 13:54 |

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

## Sequoia Analytical - Morgan Hill

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 1H13003 - EPA 5030B [P/T]** | | | | | | | | | | |
| **LCS (1H13003-BS1)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Benzene | 8.14 | 0.50 | ug/l | 10.0 | | 81.4 | 70-130 | | | |
| Toluene | 8.48 | 0.50 | " | 10.0 | | 84.8 | 70-130 | | | |
| Ethylbenzene | 8.69 | 0.50 | " | 10.0 | | 86.9 | 70-130 | | | |
| Xylenes (total) | 26.0 | 0.50 | " | 30.0 | | 86.7 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *8.39* | | " | *10.0* | | *83.9* | *70-130* | | | |
| **LCS (1H13003-BS2)** | | | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Purgeable Hydrocarbons | 190 | 50 | ug/l | 250 | | 76.0 | 70-130 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *10.7* | | " | *10.0* | | *107* | *70-130* | | | |
| **Matrix Spike (1H13003-MS1)** | | Source: MKH0201-02 | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Benzene | 10.3 | 0.50 | ug/l | 10.0 | ND | 102 | 60-140 | | | |
| Toluene | 10.7 | 0.50 | " | 10.0 | ND | 105 | 60-140 | | | |
| Ethylbenzene | 10.6 | 0.50 | " | 10.0 | ND | 106 | 60-140 | | | |
| Xylenes (total) | 31.3 | 0.50 | " | 30.0 | ND | 104 | 60-140 | | | |
| *Surrogate: a,a,a-Trifluorotoluene* | *10.3* | | " | *10.0* | | *103* | *70-130* | | | |
| **Matrix Spike Dup (1H13003-MSD1)** | | Source: MKH0201-02 | | Prepared & Analyzed: 08/13/01 | | | | | | |
| Benzene | 10.6 | 0.50 | ug/l | 10.0 | ND | 105 | 60-140 | 2.87 | 25 | |
| Toluene | 10.8 | 0.50 | " | 10.0 | ND | 106 | 60-140 | 0.930 | 25 | |
| Ethylbenzene | 10.3 | 0.50 | " | 10.0 | ND | 103 | 60-140 | 2.87 | 25 | |
| Xylenes (total) | 31.7 | 0.50 | " | 30.0 | ND | 106 | 60-140 | 1.27 | 25 | |
| *Surrogate: a,a,a-Trifluorotoluene* | *9.71* | | " | *10.0* | | *97.1* | *70-130* | | | |

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|---|---|---|
| Gettler-Ryan/Geostrategies(1)<br>6747 Sierra Court, Suite J<br>Dublin CA, 94568 | Project: Tosco(1)<br>Project Number: Unocal SS# 0752/ 800 Harrison St., Oaklan<br>Project Manager: Deanna Harding | **Reported:**<br>08/14/01 13:54 |

## Notes and Definitions

| | |
|---|---|
| P-03 | Chromatogram Pattern: Unidentified Hydrocarbons C6-C12 |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| RPD | Relative Percent Difference |