

July 10, 2003

Mr. Barney Chan
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Ro 484

Re: **Second Quarter 2003 Monitoring Report**
Former ARCO Service Station (Bo Gin)
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116



Dear Mr. Chan:

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Second Quarter 2003 Monitoring Report* for the above-referenced site. Presented in the report are the second quarter 2003 activities and results and the anticipated third quarter 2003 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3314.

Sincerely,
Cambria Environmental Technology, Inc.

Matthew A. Meyers
Senior Staff Geologist

Attachments: Second Quarter 2003 Monitoring Report

cc: Mr. Bo K. Gin, 342 Lester Avenue, Oakland, California 94606

**Cambria
Environmental
Technology, Inc.**

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

C A M B R I A

SECOND QUARTER 2003 MONITORING REPORT

Former ARCO Service Station (Bo Gin)
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116



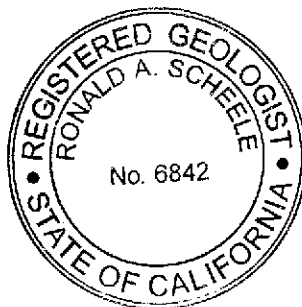
July 10, 2003

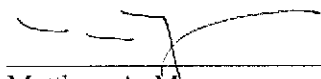
Prepared for:


Mr. Bo K. Gin
342 Lester Avenue
Oakland, California 94606

Prepared by:

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, California 94608




Matthew A. Meyers
Senior Staff Geologist


Ron Scheele, R.G.
Associate Geologist

**Cambria
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Technology, Inc.**

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Suite A
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SECOND QUARTER 2003 MONITORING REPORT

**Former ARCO Service Station (Bo Gin)
706 Harrison Street
Oakland, California
STID 3749
Cambria Project #230-0116**

July 10, 2003



INTRODUCTION

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Second Quarter 2003 Monitoring Report* for the above-referenced site. Presented below are the second quarter 2003 activities and results and the anticipated third quarter 2003 activities.

SECOND QUARTER 2003 ACTIVITIES

Monitoring Activities

Field Activities: On April 29, 2003, Cambria conducted quarterly monitoring and sampling activities. Cambria gauged groundwater levels in monitoring wells MW-1 through MW-7 (see Figure 1). Groundwater samples were collected from wells MW-1, MW-2, and MW-4 as per the well sampling schedule. Field Data Sheets are presented as Appendix A. The well gauging data has been submitted to the Geotracker database. See Appendix D for the electronic delivery confirmations.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. The laboratory analytical report is included as Appendix B. Groundwater analytical results are shown on Table 1 and summarized on Figure 1. The groundwater sampling results have been submitted to the Geotracker database. See Appendix D for the electronic delivery confirmations.

Monitoring Results

Groundwater Gradient: Based on depth-to-water measurements collected during Cambria's April 29, 2003 site visit, groundwater in the southern portion of the site flows toward the southwest at a rate of 0.003 ft/ft and in the central portion of the site flows to the northwest at a rate of 0.04 ft/ft (Figure 1). This split gradient is consistent with the previous quarter.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations were detected in two of the three monitoring wells sampled this quarter. Maximum TPHg and benzene concentrations were detected in well MW-2 at 82,000 and 2,500 micrograms per liter ($\mu\text{g/L}$), respectively. MTBE was detected in monitoring well MW-4 at 120 $\mu\text{g/L}$, which is the first time MTBE has been detected in this well in the last six quarters. No hydrocarbon concentrations were detected in well MW-1. Hydrocarbon concentrations in wells MW-2 and MW-4 have slightly increased as compared to the previous quarter. The sudden reappearance of MTBE in MW-4 is likely related to the high remaining MTBE levels present in upgradient Shell well MW-1 (see Figure 1 and Appendix E). No MTBE was ever stored or used at the former ARCO service station prior to the USTs being removed in 1991.

Corrective Action Activities

System Shutdown: The air sparge system was shutdown during the first quarter 2003 due to the absence of hydrocarbons in groundwater near air sparge wells SP-3 and SP-4. The air sparge equipment was removed from the site on May 8, 2003. The system enclosure, well manifold, and individual remediation piping remains in place.

ANTICIPATED THIRD QUARTER 2003 ACTIVITIES

Monitoring Activities

Cambria will gauge water levels and collect groundwater samples from wells MW-1 through MW-7. As per Alameda County Department of Environmental Health's letter dated February 25, 2003, the well sampling schedule has been revised so that wells MW-1, MW-2, and MW-4 are sampled on a quarterly basis and wells MW-3, MW-5, MW-6, and MW-7 are sampled on a semi-annual basis during the first and third quarters. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015C, and BTEX and MTBE by EPA Method 8021B. Samples from MW-2 and MW-4 will also be analyzed for MTBE by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Corrective Action Activities

Cambria plans to submit a work plan that will propose the drilling of several soil borings to enable the collection of groundwater and soil vapor samples from the former 6,000-gallon UST cavity and in the vicinity of MW-2. The work plan will also include hydrogeologic cross-sections, hydrocarbon mass estimates, and a subsurface utility survey.



ATTACHMENTS

- Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map
- Table 1 – Groundwater Elevations and Analytical Data
- Appendix A – Groundwater Monitoring Field Data Sheets
- Appendix B – Laboratory Analytical Report
- Appendix C – Benzene and MTBE Concentration Graphs
- Appendix D – Electronic Delivery Confirmations
- Appendix E – Former Shell Station Groundwater Analytical Results

EXPLANATION

- Monitoring well location
- Dual SVE/Sparging well
- SVE well location
- Shell Monitoring well location

15.00 Groundwater elevation contour, dashed where inferred

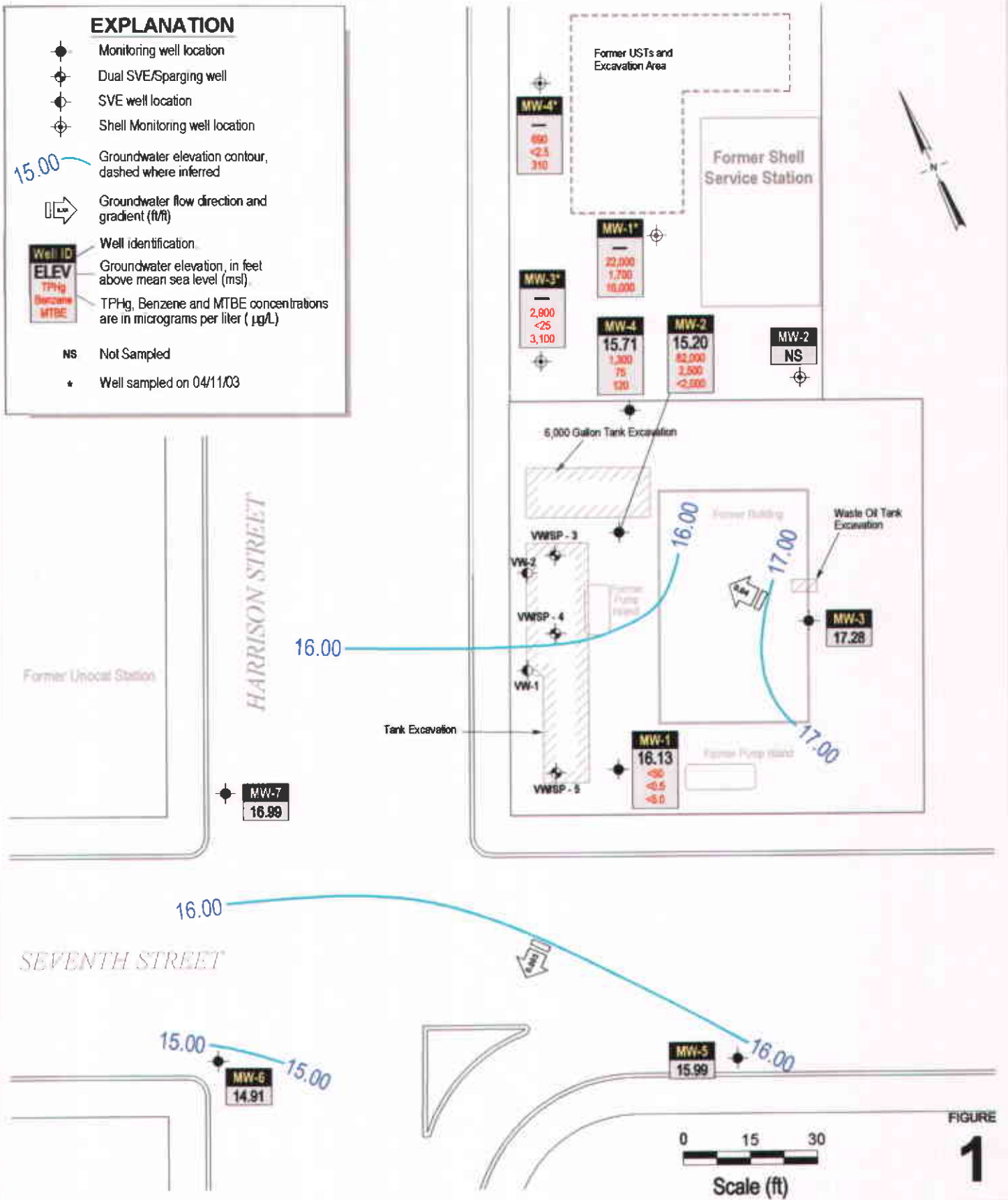
Groundwater flow direction and gradient (ft/ft)

Well ID
ELEV
 TPHg
 Benzene
 MTBE

Groundwater elevation, in feet above mean sea level (msl)
 TPHg, Benzene and MTBE concentrations are in micrograms per liter (µg/L)

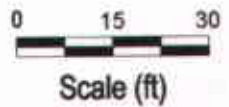
NS Not Sampled

* Well sampled on 04/11/03



FIGURE

1



Former Arco Station

706 Harrison Street
Oakland, California



Groundwater Elevation Contour and Hydrocarbon Concentration Map

C A M B R I A

April 29, 2003

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | | |
|--------------------|--------------|----------|-------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|---------------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | | |
| Sampling Frequency | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | Notes | |
| MW-1 | 8/13/93 | 17.40 | 11.75 | 20,000 | 8,500 | 640 | 280 | 440 | - | - | | |
| 29.15 | 12/14/93 | 17.27 | 11.88 | 17,000 | 9,200 | 1,200 | 4,400 | 540 | - | - | | |
| Quarterly | 4/15/94 | 17.00 | 12.15 | 9,500 | 3,600 | 530 | 160 | 280 | - | - | | |
| | 12/29/94 | 16.40 | 12.75 | - | - | - | - | - | - | - | | |
| | 7/19/96 | 15.83 | 13.32 | 17,000 | 5,200 | 1,100 | 330 | 530 | - | - | | sheen/odor |
| | 1/27/97 | 13.58 | 15.57 | 30,000 | 9,800 | 1,300 | 790 | 880 | 400 | - | | b, sheen/odor |
| | 6/18/97 | 16.11 | 13.04 | 19,000 | 5,600 | 1,400 | 510 | 770 | 1,200 | 800 | | a, b |
| | 9/18/97 | 16.62 | 12.53 | 48,000 | 18,000 | 4,400 | 1,000 | 1,700 | <640 | - | | b |
| | 12/10/97 | 15.93 | 13.22 | 22,000 | 4,900 | 1,300 | 580 | 650 | 460 | 260 | | a, b, odor |
| | 2/18/98 | 11.56 | 17.59 | 16,000 | 5,000 | 750 | 400 | 780 | 1,800 | - | | b |
| | 5/12/98 | 13.53 | 15.62 | 19,000 | 4,600 | 810 | 450 | 770 | 5,500 | - | | b, c |
| | 8/18/98 | 15.19 | 13.96 | 12,000 | 3,600 | 1,300 | 300 | 570 | 5,100 | 3,700 | | a, b |
| | 11/24/98 | 15.67 | 13.48 | 13,000 | 3,600 | 890 | 330 | 380 | 6,100 | - | | b |
| | 2/4/99 | 15.31 | 13.84 | 20,000 | 5,900 | 830 | 450 | 500 | 4,900 | - | | b |
| | 5/18/99 | 14.95 | 14.20 | 23,000 | 7,000 | 1,600 | 520 | 830 | 6,100 | - | | b |
| | 8/27/99 | 15.84 | 13.31 | 19,000 | 5,800 | 1,700 | 410 | 710 | 1,800 | 2,100 | | a, b |
| | 11/18/99 | 16.39 | 12.76 | 20,000 | 4,900 | 630 | 410 | 580 | 4,900 | 3,600 | | b |
| | 2/29/00 | 13.43 | 15.72 | 12,000 | 2,800 | 24 | 290 | 170 | 3,100 | 3,400 | | a |
| | 5/25/00 | 15.08 | 14.07 | 12,000 | 2,200 | 120 | 330 | 260 | 9,100 | 12,000 | | a, b |
| | 8/9/00 | 16.09 | 13.06 | 13,000 | 2,500 | 44 | 310 | 140 | 16,000 | - | | b |
| | 11/9/00 | 15.90 | 13.25 | 11,000 | 2,500 | 140 | 380 | 150 | 11,000 | 12,000 | | b |
| | 1/29/01 | 16.05 | 13.10 | 9,600 | 3,100 | 100 | 77 | 200 | 2,600 | 2,400 | | b |
| | 4/16/01 | 16.90 | 12.25 | 3,300 | 1,200 | 4.4 | 2.7 | 28 | 900 | 940 | | b |
| | 8/14/01 | 17.13 | 12.02 | 2,000 | 500 | 3.4 | 24 | 7.8 | 68 | 53 | | a |
| | 10/22/01 | 16.11 | 13.04 | 220 | 83 | 0.63 | 2.8 | <0.5 | <10 | 5.7 | | a |
| | 2/1/02 | 16.93 | 12.22 | 640 | 220 | 1.7 | 4.7 | 0.57 | <10 | - | | a |
| | 5/10/02 | 15.09 | 14.06 | 230 | 26 | 0.97 | <0.5 | <0.5 | <5.0 | - | | a |
| | 7/8/02 | 15.20 | 13.95 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | <0.5 | | |
| | 10/2/02 | 15.70 | 13.45 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| | 1/23/03 | 15.09 | 14.06 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| | 4/29/03 | 13.02 | 16.13 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | | | | | | | | | | |
|--------------|----------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|------------------|-------------|---------------|
| <i>TOC</i> | | Depth to | Groundwater | | | | | | | | |
| Sampling | Date Sampled | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Frequency | | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| MW-2 | 8/13/93 | 17.05 | 13.46 | 34,000 | 6,800 | 10,000 | 740 | 3,900 | - | - | |
| <i>30.51</i> | 12/14/93 | 18.28 | 12.23 | 16,000 | 3,200 | 4,200 | 500 | 1,700 | - | - | |
| Quarterly | 4/15/94 | 18.10 | 12.41 | 23,000 | 2,500 | 4,200 | 470 | 1,800 | - | - | |
| | 12/29/94 | 17.40 | 13.11 | - | - | - | - | - | - | - | |
| | 7/19/96 | 16.72 | 13.79 | 90,000 | 7,300 | 14,000 | 1,600 | 7,300 | - | - | odor |
| | 1/27/97 | 14.89 | 15.62 | 63,000 | 7,100 | 13,000 | 1,600 | 7,100 | 500 | - | b, odor |
| | 6/18/97 | 17.12 | 13.39 | 52,000 | 5,100 | 10,000 | 1,400 | 6,000 | <200 | - | b |
| | 9/18/97 | 17.63 | 12.88 | 110,000 | 9,400 | 23,000 | 2,600 | 13,000 | <890 | - | b, sheen/odor |
| | 12/10/97 | 16.98 | 13.53 | 39,000 | 2,600 | 5,300 | 940 | 3,900 | 780 | 320 | b, odor |
| | 2/18/98 | 12.61 | 17.90 | 85,000 | 9,000 | 19,000 | 2,300 | 11,000 | 2,400 | - | b |
| | 5/12/98 | 14.45 | 16.06 | 110,000 | 9,500 | 21,000 | 2,500 | 12,000 | <1,200 | - | b |
| | 8/18/98 | 16.14 | 14.37 | 64,000 | 6,000 | 13,000 | 1,700 | 7,800 | 2,000 | 1,300 | a, b |
| | 11/24/98 | 16.70 | 13.81 | 78,000 | 5,300 | 14,000 | 2,300 | 11,000 | <2,000 | - | b, g |
| | 2/4/99 | 18.39 | 12.12 | 66,000 | 5,800 | 16,000 | 2,600 | 12,000 | 3,000 | - | b, g |
| | 5/18/99 | 15.90 | 14.61 | 78,000 | 6,700 | 17,000 | 2,400 | 10,000 | 4,300 | - | b |
| | 8/27/99 | 16.79 | 13.72 | 91,000 | 7,400 | 17,000 | 2,300 | 11,000 | 1,200 | 1,000 | a, b |
| | 11/18/99 | 17.32 | 13.19 | 180,000 | 7,000 | 20,000 | 3,300 | 16,000 | <6,000 | 1,700 | b, g |
| | 2/29/00 | 14.37 | 16.14 | 86,000 | 5,500 | 13,000 | 2,000 | 9,500 | 3,500 | 4,700 | a |
| | 5/25/00 | 16.01 | 14.50 | 110,000 | 6,300 | 14,000 | 2,400 | 10,000 | 7,500 | 6,500 | a, b, g |
| | 8/9/00 | 17.02 | 13.49 | 77,000 | 5,000 | 13,000 | 2,000 | 8,600 | 5,900 | - | b |
| | 11/9/00 | 17.00 | 13.51 | 70,000 | 4,800 | 12,000 | 1,900 | 8,000 | 9,400 | 8,300 | b |
| | 1/29/01 | 18.31 | 12.20 | 110,000 | 8,200 | 21,000 | 2,800 | 13,000 | 2,500 | 1,900 | b, g |
| | 4/16/01 | 18.59 | 11.92 | 97,000 | 7,400 | 15,000 | 2,500 | 12,000 | <3,000 | <50 | b, g |
| | 8/14/01 | 18.74 | 11.77 | 97,000 | 6,200 | 14,000 | 2,400 | 13,000 | <250 | <50 | a, j |
| | 10/22/01 | 18.27 | 12.24 | 71,000 | 5,900 | 15,000 | 2,400 | 12,000 | <1,400 | 150 | a |
| | 2/1/02 | 18.05 | 12.46 | 1,400 | 11 | 88 | 44 | 210 | <5.0 | - | a |
| | 5/10/02 | 17.15 | 13.36 | 97,000 | 4,500 | 15,000 | 2,500 | 12,000 | <3,000 | - | a, g |
| | 7/8/02 | 15.30 | 15.21 | 42,000 | 2,100 | 6,500 | 2,200 | 8,800 | <1,000 | 65 | a |
| | 10/2/02 | 15.89 | 14.62 | 70,000 | 1,700 | 5,700 | 1,900 | 8,300 | <1,700 | - | a |
| | 1/23/03 | 17.51 | 13.00 | 40,000 | 1,900 | 7,800 | 1,200 | 5,600 | <1,000 | - | a |
| | 4/29/03 | 15.31 | 15.20 | 82,000 | 2,500 | 11,000 | 2,200 | 9,400 | <2,000 | - | a |

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Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | |
|--------------------|--------------|----------|-------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Sampling Frequency | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| MW-3 | 8/13/93 | 17.05 | 12.72 | <50 | <0.50 | <0.50 | <0.50 | <1.5 | - | - | |
| 29.77 | 12/14/93 | 17.70 | 12.07 | <50 | <0.50 | <0.50 | <0.50 | <1.5 | - | - | |
| Semi-annually | 4/15/94 | 17.40 | 12.37 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | - | - | |
| | 12/29/94 | 16.80 | 12.97 | - | - | - | - | - | - | - | |
| | 7/19/96 | 16.28 | 13.49 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | - | - | |
| | 1/27/97 | 13.83 | 15.94 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 6/18/97 | 16.53 | 13.24 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 9/18/97 | 17.07 | 12.70 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 12/10/97 | 16.15 | 13.62 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/18/98 | 11.80 | 17.97 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/12/98 | 13.85 | 15.92 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/18/98 | 15.57 | 14.20 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/24/98 | 16.04 | 13.73 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/4/99 | 17.80 | 11.97 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/18/99 | 15.29 | 14.48 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/27/99 | 16.15 | 13.62 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/18/99 | 16.77 | 13.00 | - | - | - | - | - | - | - | |
| | 2/29/00 | 13.71 | 16.06 | <50 | 2 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/25/00 | 15.46 | 14.31 | - | - | - | - | - | - | - | |
| | 8/9/00 | 16.46 | 13.31 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/9/00 | 16.25 | 13.52 | - | - | - | - | - | - | - | |
| | 1/29/01 | 16.52 | 13.25 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| 4/16/01 | 16.95 | 12.82 | - | - | - | - | - | - | - | | |
| 8/14/01 | 17.11 | 12.66 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| 10/22/01 | 16.50 | 13.27 | - | - | - | - | - | - | - | | |
| 2/1/02 | 16.90 | 12.87 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| 5/10/02 | 15.03 | 14.74 | - | - | - | - | - | - | - | | |
| 7/8/02 | 14.45 | 15.32 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| 10/2/02 | 15.03 | 14.74 | - | - | - | - | - | - | - | | |
| 1/23/03 | 15.48 | 14.29 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| | 4/29/03 | 12.49 | 17.28 | - | - | - | - | - | - | - | |

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Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | |
|-----------|--------------|----------|-------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Sampling | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| Frequency | | | | | | | | | | | |
| MW-4 | 12/16/94 | 18.10 | 13.08 | 2,500 | 32 | 6.5 | 4.5 | 17 | - | - | |
| 31.18 | 12/29/94 | 17.95 | 13.23 | - | - | - | - | - | - | - | |
| Quarterly | 7/19/96 | 17.38 | 13.80 | 3,300 | 520 | 39 | 67 | 60 | - | - | |
| | 1/27/97 | 15.25 | 15.93 | 4,500 | 860 | 55 | 100 | 91 | 1,100 | - | b |
| | 6/18/97 | 17.61 | 13.57 | 2,700 | 700 | 52 | 81 | 76 | 2,200 | 2,300 | a, b |
| | 9/18/97 | 18.01 | 13.17 | 3,900 | 760 | 38 | 56 | 64 | <170 | - | b |
| | 12/10/97 | 17.45 | 13.73 | 12,000 | 1,800 | 120 | 210 | 210 | 2,900 | 2,600 | a, b |
| | 2/18/98 | 13.09 | 18.09 | 1,700 | 210 | 8 | 6.7 | 16 | 200 | - | b |
| | 5/12/98 | 14.78 | 16.40 | 2,100 | 300 | 15 | 36 | 34 | 920 | - | b, c |
| | 8/18/98 | 16.59 | 14.59 | 4,700 | 1,000 | 130 | 110 | 150 | 5,200 | 4,900 | a, b |
| | 11/24/98 | 17.18 | 14.00 | 3,000 | 810 | 44 | 76 | 94 | 4,800 | - | b |
| | 2/4/99 | 18.90 | 12.28 | 2,800 | 770 | 50 | 69 | 69 | 3,100 | - | b |
| | 5/18/99 | 16.30 | 14.88 | 4,000 | 780 | 57 | 7.7 | 79 | 4,800 | - | b |
| | 8/27/99 | 17.21 | 13.97 | 4,100 | 870 | 51 | 74 | 99 | 3,300 | 4,100 | a, b |
| | 11/18/99 | 17.77 | 13.41 | 3,000 | 760 | 43 | 67 | 65 | 5,100 | 5,400 | b |
| | 2/29/00 | 14.85 | 16.33 | 4,600 | 1,000 | 64 | 94 | 170 | 4,100 | 4,600 | a |
| | 5/25/00 | 16.45 | 14.73 | 2,600 | 540 | 39 | 59 | 41 | 3,500 | 5,300 | b |
| | 8/9/00 | 17.47 | 13.71 | 4,400 | 930 | 66 | 98 | 79 | 9,400 | - | b |
| | 11/9/00 | 17.45 | 13.73 | 4,200 | 630 | 34 | 54 | 44 | 7,800 | 9,400 | b |
| | 1/29/01 | 18.90 | 12.28 | 3,100 | 710 | 34 | 66 | 51 | 9,400 | 8,000 | b |
| | 4/16/01 | 19.17 | 12.01 | 160 | 1.2 | 1.3 | <0.5 | 12 | 22 | 20 | b |
| | 8/14/01 | 19.20 | 11.98 | 1,700 | 190 | 11 | 35 | 13 | 300 | 250 | b |
| | 10/22/01 | 18.95 | 12.23 | 1,100 | 120 | 3.7 | 29 | 7.9 | <25 | 16 | a |
| | 2/1/02 | 19.05 | 12.13 | 2,600 | 25 | 43 | 21 | 280 | <5.0 | - | a |
| | 5/10/02 | 17.69 | 13.49 | 490 | 3.5 | 2.0 | 2.1 | 2.2 | <5.0 | - | a |
| | 7/8/02 | 15.75 | 15.43 | 170 | 0.51 | 0.62 | 1.6 | 1.2 | <5.0 | 2.0 | m |
| | 10/2/02 | 16.30 | 14.88 | 240 | 1.7 | 2.0 | 2.2 | 0.88 | <5.0 | - | a |
| | 1/23/03 | 17.74 | 13.44 | <50 | 0.52 | 4.1 | <0.5 | 1.9 | <5.0 | - | |
| | 4/29/03 | 15.47 | 15.71 | 1,300 | 75 | 4.8 | 21 | 7.3 | 130 | 120 | a |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | |
|--------------------|----------------|--------------|--------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Sampling Frequency | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| MW-5 | 12/16/94 | 16.07 | 11.97 | <50 | 1.1 | <0.5 | <0.5 | 2.4 | - | - | |
| 28.04 | 12/29/94 | 16.10 | 11.94 | - | - | - | - | - | - | - | |
| Semi-annually | 7/19/96 | 15.49 | 12.55 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | - | - | |
| | 1/27/97 | 13.60 | 14.44 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 6/18/97 | 15.55 | 12.49 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 9/18/97 | 16.16 | 11.88 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 12/10/97 | 15.41 | 12.63 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/18/98 | 10.93 | 17.11 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/12/98 | 13.25 | 14.79 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/18/98 | 14.75 | 13.29 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/24/98 | 15.15 | 12.89 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/4/99 | 14.61 | 13.43 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/18/99 | 14.15 | 13.89 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/27/99 | 15.43 | 12.61 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/18/99 | 15.97 | 12.07 | - | - | - | - | - | - | - | |
| | 2/29/00 | 13.16 | 14.88 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/25/00 | 14.72 | 13.32 | - | - | - | - | - | - | - | |
| | 8/9/00 | 15.68 | 12.36 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/9/00 | 15.39 | 12.65 | - | - | - | - | - | - | - | |
| | 1/29/01 | 15.97 | 12.07 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 4/16/01 | 16.24 | 11.80 | - | - | - | - | - | - | - | |
| | 8/14/01 | 17.39 | 10.65 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| 10/22/01 | 15.90 | 12.14 | - | - | - | - | - | - | - | | |
| 2/1/02 | 16.55 | 11.49 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| 5/10/02 | 15.12 | 12.92 | - | - | - | - | - | - | - | | |
| 7/8/02 | 15.92 | 12.12 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| 10/2/02 | 16.42 | 11.62 | - | - | - | - | - | - | - | | |
| 1/23/03 | 14.90 | 13.14 | <50 | 20 | <0.5 | <0.5 | <0.5 | <5.0 | - | | |
| | 4/29/03 | 12.05 | 15.99 | - | - | - | - | - | - | - | |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | |
|---------------|--------------|----------|-------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Sampling | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| Frequency | | | | | | | | | | | |
| MW-6 | 12/16/94 | 17.74 | 11.36 | - | - | - | - | - | - | - | |
| 29.10 | 12/29/94 | 17.40 | 11.70 | - | - | - | - | - | - | - | |
| Semi-annually | 7/19/96 | 16.60 | 12.50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | - | - | |
| | 1/27/97 | 14.88 | 14.22 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 6/18/97 | 16.73 | 12.37 | 51 | 22 | <0.5 | <0.5 | <0.5 | <5.0 | - | c |
| | 9/18/97 | 17.24 | 11.86 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 12/10/97 | 16.56 | 12.54 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/18/98 | 12.93 | 16.17 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/12/98 | 14.35 | 14.75 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/18/98 | 15.94 | 13.16 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/24/98 | 16.46 | 12.64 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/4/99 | 18.25 | 10.85 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/18/99 | 15.73 | 13.37 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/27/99 | 15.64 | 13.46 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/18/99 | 17.04 | 12.06 | - | - | - | - | - | - | - | |
| | 2/29/00 | 14.55 | 14.55 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/25/00 | 15.86 | 13.24 | - | - | - | - | - | - | - | |
| | 8/9/00 | 16.80 | 12.30 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/9/00 | 16.60 | 12.50 | - | - | - | - | - | - | - | |
| | 1/29/01 | 17.00 | 12.10 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 4/16/01 | 17.15 | 11.95 | - | - | - | - | - | - | - | |
| | 8/14/01 | 17.30 | 11.80 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 10/22/01 | 17.13 | 11.97 | - | - | - | - | - | - | - | |
| | 2/1/02 | 16.57 | 12.53 | 70 | 37 | <0.5 | <0.5 | <0.5 | <5.0 | - | a |
| | 5/10/02 | 15.25 | 13.85 | - | - | - | - | - | - | - | |
| | 7/8/02 | 15.79 | 13.31 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 10/2/02 | 16.38 | 12.72 | - | - | - | - | - | - | - | |
| | 1/23/03 | 16.03 | 13.07 | <50 | 21 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 4/29/03 | 14.19 | 14.91 | - | - | - | - | - | - | - | |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | | Depth to | Groundwater | | | | | | | | |
|---------------|----------------|--------------|--------------|--------|---------|---------|--------------|---------|-------------|-------------|-------|
| TOC | | Water | Elevation | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE (8020) | MTBE (8260) | Notes |
| Sampling | Date Sampled | (ft) | (ft-msl) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | |
| Frequency | | | | | | | | | | | |
| MW-7 | 12/16/94 | 17.07 | 12.60 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| 29.67 | 12/29/94 | 17.65 | 12.02 | - | - | - | - | - | - | - | |
| Semi-annually | 7/19/96 | 16.44 | 13.23 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 1/27/97 | 15.09 | 14.58 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 6/18/97 | 16.59 | 13.08 | 73 | <0.5 | 0.55 | <0.5 | <0.5 | <5.0 | - | d |
| | 9/18/97 | 17.06 | 12.61 | 94 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | e, f |
| | 12/10/97 | 16.58 | 13.09 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 2/18/98 | 12.60 | 17.07 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/12/98 | 14.81 | 14.86 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 8/18/98 | 15.67 | 14.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/24/98 | 16.30 | 13.37 | 200 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | d |
| | 2/4/99 | 15.99 | 13.68 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/18/99 | 15.42 | 14.25 | 200 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | d |
| | 8/27/99 | 16.35 | 13.32 | 140 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/18/99 | 16.81 | 12.86 | -- | -- | -- | -- | -- | -- | - | |
| | 2/29/00 | 14.16 | 15.51 | 100 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | f |
| | 5/25/00 | 15.54 | 14.13 | -- | -- | -- | -- | -- | -- | - | |
| | 8/9/00 | 16.56 | 13.11 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 11/9/00 | 16.45 | 13.22 | - | - | - | - | - | - | - | |
| | 1/29/01 | 16.92 | 12.75 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 4/16/01 | 17.03 | 12.64 | - | - | - | - | - | - | - | |
| | 8/14/01 | 17.27 | 12.40 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 10/22/01 | 16.95 | 12.72 | - | - | - | - | - | - | - | |
| | 2/1/02 | 16.14 | 13.53 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 5/10/02 | 15.30 | 14.37 | - | - | - | - | - | - | - | |
| | 7/8/02 | 15.73 | 13.94 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 10/2/02 | 16.24 | 13.43 | - | - | - | - | - | - | - | |
| | 1/23/03 | 15.70 | 13.97 | <50 | 23 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| | 4/29/03 | 12.68 | 16.99 | - | - | - | - | - | - | - | |

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

| Well ID | TOC | Depth to Water (ft) | Groundwater Elevation (ft-msl) | TPHg (µg/L) | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Xylenes (µg/L) | MTBE (8020) (µg/L) | MTBE (8260) (µg/L) | Notes |
|------------|---------|---------------------|--------------------------------|-------------|----------------|----------------|---------------------|----------------|--------------------|--------------------|-------|
| VW-3 | 3/6/03 | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | i |
| -- | 3/25/03 | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | i |
| VW-4 | 3/6/03 | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| -- | 3/25/03 | -- | -- | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |
| Trip Blank | 11/9/00 | - | - | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 | - | |

Abbreviations and Analyses:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
 Benzene, ethylbenzene, toluene and xylenes by EPA Method 8020.
 MTBE = Methyl tertiary butyl ether by EPA Method 8020 and/or 8260.
 µg/L = Micrograms per liter
 TOC = Top of casing elevation with respect to mean sea level
 - = not sampled
 Data prior to 12/16/94 provided by previous consultant.
 ft-msl = measured in feet relative to mean sea level
 ft = measured in feet

Notes

a = Analytical laboratory notes that unmodified or weakly modified gasoline is significant.
 b = Analytical laboratory notes that heavier gasoline range compounds are significant.
 c = Analytical laboratory notes that lighter gasoline range compounds are significant.
 d = Analytical laboratory notes that isolated peaks are present.
 e = Analytical laboratory notes that heavier gasoline range compounds are significant.
 f = Analytical laboratory notes hydrocarbons with no recognizable patterns are present.
 g = Analytical laboratory notes lighter than water immiscible sheen is present.
 j = Sample diluted due to high organic content.
 i = Sample contains greater than ~2 vol. % sediment.

C A M B R I A



APPENDIX A

Groundwater Monitoring Field Data Sheets

Groundwater Monitoring Field Sheet

| Well ID | Time | DTP | DTW | Product Thickness | Amount of Product Removed | Casing Diam. | Comment |
|---------|------|-----|-------|-------------------|---------------------------|--------------|---------|
| MW-1 | 1:50 | | 13.02 | | | | |
| MW-2 | 1:45 | | 15.31 | | | | |
| MW-3 | 1:35 | | 12.49 | | | | |
| MW-4 | 1:40 | | 15.47 | | | | |
| MW-5 | 1:00 | | 12.05 | | | | |
| MW-6 | 1:15 | | 14.19 | | | | |
| MW-7 | 1:25 | | 12.68 | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Project Name: Bo Grin

Project Number/Task: 230-0116

Measured By: L. Hill

Date: 4-29-03

WELL SAMPLING FORM

| | | |
|--|--|-----------------------------------|
| Project Name: <u>Bo Gin</u> | Cambria Mgr: <u>RAS</u> | Well ID: <u>MW-1</u> |
| Project Number: <u>230-0116</u> | Date: <u>4-29-03</u> | Well Yield: |
| Site Address: <u>706 Harrison St. Oakland, Ca</u> | Sampling Method: <u>Disposable Bailer</u> | Well Diameter: <u>2" pvc</u> |
| | | Technician(s): <u>SA</u> |
| Initial Depth to Water: <u>13.02</u> | Total Well Depth: <u>24.20</u> | Water Column Height: <u>11.18</u> |
| Volume/ft: <u>0.16</u> | 1 Casing Volume: <u>1.78</u> | 3 Casing Volumes: <u>5.36</u> |
| Purging Device: <u>Disposable bailer</u> | Did Well Dewater?: <u>no</u> | Total Gallons Purged: <u>5</u> |
| Start Purge Time: <u>3:25</u> | Stop Purge Time: <u>3:39</u> | Total Time: <u>14 mins</u> |

Casing Volume = Water column height x Volume/ ft.

| Well Diam. | Volume/ft (gallons) |
|------------|---------------------|
| 2" | 0.16 |
| 4" | 0.65 |
| 6" | 1.47 |

| Time | Casing Volume | Temp. (°C) | pH | Cond. (uS) | Comments |
|-------------|---------------|-------------|-------------|-------------|----------|
| <u>3:30</u> | <u>1.5</u> | <u>19.1</u> | <u>7.27</u> | <u>1291</u> | |
| <u>3:35</u> | <u>3</u> | <u>18.5</u> | <u>7.10</u> | <u>970</u> | |
| <u>3:40</u> | <u>5</u> | <u>18.6</u> | <u>7.14</u> | <u>825</u> | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Fe = mg/L ORP = mV DO = mg/L

| Sample ID | Date | Time | Container Type | Preservative | Analytes | Analytic Method |
|-------------|----------------|-------------|----------------|--------------|------------------------|------------------|
| <u>MW-1</u> | <u>4-29-03</u> | <u>3:45</u> | <u>SVOC</u> | <u>HCl</u> | <u>TPH, BTEX, MTBE</u> | <u>8015/8020</u> |
| | | | | | | |
| | | | | | | |

WELL SAMPLING FORM

| | | |
|--|--|----------------------------------|
| Project Name: Bo Gin | Cambria Mgr: RAS | Well ID: MW-4 |
| Project Number: 230-0116 | Date: 1-23-03 | Well Yield: |
| Site Address: 706 Harrison St. Oakland, Ca | Sampling Method: Disposable Bailer | Well Diameter: 2" pvc |
| | | Technician(s): SA |
| Initial Depth to Water: 15.47 | Total Well Depth: 25.40 | Water Column Height: 9.93 |
| Volume/ft: 0.16 | 1 Casing Volume: 1.58 | 3 Casing Volumes: 4.76 |
| Purging Device: Disposable bailer | Did Well Dewater?: NO | Total Gallons Purged: 5 |
| Start Purge Time: 2:15 | Stop Purge Time: 3:29 | Total Time: 14 mins |

Casing Volume = Water column height x Volume/ ft.

| Well Diam. | Volume/ft (gallons) |
|------------|---------------------|
| 2" | 0.16 |
| 4" | 0.65 |
| 6" | 1.47 |

| Time | Casing Volume | Temp. (°C) | pH | Cond. (uS) | Comments |
|-------------|---------------|-------------|-------------|-------------|----------|
| 2:20 | 1.5 | 17.3 | 7.28 | 3999 | |
| 2:25 | 3 | 18.9 | 7.13 | 3209 | |
| 2:30 | 5 | 18.7 | 7.15 | 3170 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Fe = mg/L ORP = mV DO = mg/L

| Sample ID | Date | Time | Container Type | Preservative | Analytes | Analytic Method |
|-------------|----------------|-------------|----------------|--------------|------------------------|------------------|
| MW-4 | 1-29-03 | 2:35 | SVOC | HCl | TPH, BTEX, MTBE | 8015/8020 |
| | | | | | | |
| | | | | | | |

WELL SAMPLING FORM

| | | |
|--|--|-----------------------------------|
| Project Name: Bo Gin | Cambria Mgr: RAS | Well ID: MW-2 |
| Project Number: 230-0116 | Date: 4-29-03 | Well Yield: |
| Site Address: 706 Harrison St. Oakland, Ca | Sampling Method: Disposable Bailer | Well Diameter: 2" pvc |
| | | Technician(s): SA |
| Initial Depth to Water: 15.31 | Total Well Depth: 25.50 | Water Column Height: 10.19 |
| Volume/ft: 0.16 | 1 Casing Volume: 1.63 | 3 Casing Volumes: 4.89 |
| Purging Device: Disposable bailer | Did Well Dewater?: no | Total Gallons Purged: 5 |
| Start Purge Time: 2:50 | Stop Purge Time: 3:04 | Total Time: 14 mins |

Casing Volume = Water column height x Volume/ ft.

| Well Diam. | Volume/ft (gallons) |
|------------|---------------------|
| 2" | 0.16 |
| 4" | 0.65 |
| 6" | 1.47 |

| Time | Casing Volume | Temp. (°C) | pH | Cond. (uS) | Comments |
|-------------|---------------|-------------|-------------|-------------|----------|
| 2:55 | 1.5 | 19.4 | 7.13 | 1011 | |
| 3:00 | 3 | 19.4 | 7.20 | 620 | |
| 3:05 | 5 | 19.4 | 7.19 | 685 | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Fe = mg/L ORP = mV DO = mg/L

| Sample ID | Date | Time | Container Type | Preservative | Analytes | Analytic Method |
|-------------|----------------|-------------|----------------|--------------|-----------------------|------------------|
| MW-2 | 4-29-03 | 3:10 | 3VOA | HCl | TPH, BTEX MTBE | 8015/8020 |
| | | | | | | |
| | | | | | | |

McCAMPBELL ANALYTICAL INC.

110 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

FILE COPY

CHAIN OF CUSTODY RECORD

TURN AROUND TIME:

RUSH 24 HOUR 48 HOUR 5 DAY

EDF Required? Yes No

Report To: Matt Meyers Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology Inc.

5900 Hollis Street STE-A

Emeryville, CA 94608

E-mail: MMeyers@Cambria-env.com

Tele: 510-420-3314

Fax: 510-420-9170

Project #: 230-0116-135

Project Name: Bogin

Project Location: 706 Morrison St.

Sampler Signature: S. Hill

Analysis Request

Other Comments

| | | | | | | | | | | | | | | |
|--|----------------------|---|--------------------------------------|----------------|----------------------------|----------------|---------------------------|-----------------------|----------------|--|---------------|---------------|-----------------------------|-----|
| BTEX & TPH as Gas (602/8020 + 8015) MTBE | TPH as Diesel (8015) | Total Petroleum Oil & Grease (5520 E&F/B&F) | Total Petroleum Hydrocarbons (418.1) | EPA 601 / 8010 | BTEX ONLY (EPA 602 / 8020) | EPA 608 / 8080 | EPA 608 / 8080 PCB's ONLY | EPA 624 / 8240 / 8260 | EPA 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals | LUFT 5 Metals | Lead (7240/7421/239.2/6010) | RCI |
| | | | | | | | | | | | | | | |

Confirm MTBE by 8260

| SAMPLE ID (Field Point Name) | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | | |
|---------------------------------|----------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|--|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other | |
| | | | | | | | | | | | | | | | |
| MW-1 | | 4-29-03 | 3:45 | 3 | VOC | X | | | | | X | X | | | |
| MW-2 | | 4-29-03 | 3:10 | 3 | VOC | X | | | | | X | X | | | |
| MW-4 | | 4-29-03 | 2:35 | 3 | VOC | X | | | | | X | X | | | |
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|---------------------------------|---------------|------------|--------------|
| Relinquished By: <u>S. Hill</u> | Date: 4-30-03 | Time: 5:00 | Received By: |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

Remarks: E-mail results also

C A M B R I A



APPENDIX B

Laboratory Analytical Report



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mcccampbell.com> E-mail: main@mcccampbell.com

| | | |
|--|--|--------------------------|
| Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 | Client Project ID: #230-0116-135; Bo Gin | Date Sampled: 04/29/03 |
| | | Date Received: 04/30/03 |
| | Client Contact: Matt Meyers | Date Reported: 05/07/03 |
| | Client P.O.: | Date Completed: 05/07/03 |

WorkOrder: 0304471

May 07, 2003

Dear Matt:

Enclosed are:

- 1). the results of 3 analyzed samples from your #230-0116-135; Bo Gin project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



| | | |
|--|--|--------------------------|
| Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 | Client Project ID: #230-0116-135; Bo Gin | Date Sampled: 04/29/03 |
| | Client Contact: Matt Meyers | Date Received: 04/30/03 |
| | Client P.O.: | Date Analyzed: 05/01/03 |
| | | Date Extracted: 05/01/03 |

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0304471

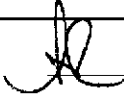
| Lab ID | Client ID | Matrix | TPH(g) | MTBE | Benzene | Toluene | Ethylbenzene | Xylenes | DF | % SS |
|--------|-----------|--------|----------|---------|---------|---------|--------------|---------|-----|------|
| 001A | MW-1 | W | ND | ND | ND | ND | ND | ND | 1 | 102 |
| 002A | MW-2 | W | 82,000,a | ND<2000 | 2500 | 11,000 | 2200 | 9400 | 100 | 105 |
| 003A | MW-4 | W | 1300,a | 130 | 75 | 4.8 | 21 | 7.3 | 1 | 96.2 |
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|--|---|----|-----|-----|-----|-----|-----|---|-------|
| Reporting Limit for DF =1; ND means not detected at or above the reporting limit | W | 50 | 5.0 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | µg/L |
| | S | NA | NA | NA | NA | NA | NA | 1 | mg/Kg |

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

 Angela Rydelius, Lab Manager



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 http://www.mcccampbell.com E-mail: main@mcccampbell.com

| | | |
|--|--|--------------------------|
| Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 | Client Project ID: #230-0116-135; Bo Gin | Date Sampled: 04/29/03 |
| | | Date Received: 04/30/03 |
| | Client Contact: Matt Meyers | Date Extracted: 05/06/03 |
| | Client P.O.: | Date Analyzed: 05/06/03 |

Methyl tert-Butyl Ether*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 0304471

| Lab ID | Client ID | Matrix | Methyl-t-butyl ether (MTBE) | DF | % SS |
|--------|-----------|--------|-----------------------------|----|------|
| 003A | MW-4 | W | 120 | 5 | 109 |
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|---|---|-----|------|
| Reporting Limit for DF=1; ND means not detected at or above the reporting limit | W | 0.5 | µg/L |
| | S | NA | NA |

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.



QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0304471

| EPA Method: SW8021B/8015Cm | | Extraction: SW5030B | | BatchID: 6744 | | Spiked Sample ID: 0304471-001A | | | | |
|----------------------------|--------|---------------------|--------|---------------|---------|--------------------------------|--------|----------|-------------------------|------|
| Compound | Sample | Spiked | MS* | MSD* | MS-MSD* | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | Low | High |
| TPH(btex) ^E | ND | 60 | 99.7 | 99.8 | 0.0888 | 98 | 97.8 | 0.248 | 70 | 130 |
| MTBE | ND | 10 | 105 | 105 | 0 | 93.1 | 98.5 | 5.70 | 70 | 130 |
| Benzene | ND | 10 | 101 | 104 | 3.35 | 98.6 | 100 | 1.72 | 70 | 130 |
| Toluene | ND | 10 | 102 | 105 | 3.04 | 103 | 105 | 1.17 | 70 | 130 |
| Ethylbenzene | ND | 10 | 102 | 105 | 2.83 | 104 | 105 | 1.39 | 70 | 130 |
| Xylenes | ND | 30 | 107 | 107 | 0 | 110 | 110 | 0 | 80 | 120 |
| %SS: | 102 | 100 | 100 | 103 | 2.86 | 101 | 100 | 0.535 | 80 | 120 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

$\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) * 2.$

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

^E TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

Matrix: W

WorkOrder: 0304471

| EPA Method: SW8260B | | Extraction: SW5030B | | BatchID: 6767 | | Spiked Sample ID: 0305035-006B | | | | |
|--|--------|---------------------|--------|---------------|---------|--------------------------------|--------|----------|-------------------------|------|
| Compound | Sample | Spiked | MS* | MSD* | MS-MSD* | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | |
| | µg/L | µg/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | Low | High |
| Methyl-t-butyl ether (MTBE) | ND | 10 | 113 | 110 | 3.03 | 106 | 106 | 0 | 70 | 130 |
| %SS1: | 107 | 100 | 107 | 107 | 0 | 105 | 102 | 2.13 | 80 | 130 |
| All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE | | | | | | | | | | |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / (MS + MSD) * 2$.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

McC Campbell Analytical Inc.



110 Second Avenue South, #D7
 Pacheco, CA 94553-3560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0304471

Client:

Cambria Env. Technology
 5900 Hollis St, Suite A
 Emeryville, CA 94608

TEL: (510) 450-1983
 FAX: (510) 450-8295
 ProjectNo: #230-0116-135; Bo Gin
 PO:

Date Received: 04/30/03

Date Printed: 05/07/03

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests | | | | | |
|-------------|--------------|--------|---------------------|--------------------------|-----------------|--------|------------|--|--|--|
| | | | | | G-MBTEX_W | MTBE_W | REDF REPOR | | | |
| 0304471-001 | MW-1 | Water | 04/29/03 3:45:00 PM | <input type="checkbox"/> | A | | A | | | |
| 0304471-002 | MW-2 | Water | 04/29/03 3:10:00 PM | <input type="checkbox"/> | A | | | | | |
| 0304471-003 | MW-4 | Water | 04/29/03 2:35:00 PM | <input type="checkbox"/> | A | A | | | | |

Prepared by: Melissa Valles

Comments: MTBE added to 003 per note on C.O.C. 5/2/03.

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Cete

0304471

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME:
RUSH 24 HOUR 48 HOUR 5 DAY

EDF Required? Yes No

Report To: Matt Meyers Bill To: Cambria Env. Tech

Company: Cambria Environmental Technology Inc.

5900 Hollis Street STE-A

Emeryville, CA 94608

E-mail: MMeyers@Cambria-env.com

Tele: 510-420-3314

Fax: 510-420-9170

Project #: 230-0116-133

Project Name: Boggin

Project Location: 706 Harrison St.

Sampler Signature: J. Hill

Analysis Request

Other _____ Comments _____

BTEX & TPH as Gas (602/8020 + 8015) MTBE
TPH as Diesel (8015)
Total Petroleum Oil & Grease (5520 E&F/B&F)
Total Petroleum Hydrocarbons (418.1)
EPA 601 / 8010
BTEX ONLY (EPA 602 / 8020)
EPA 608 / 8080
EPA 608 / 8080 PCB's ONLY
EPA 624 / 8240 / 8260
EPA 625 / 8270
PAH's / PNA's by EPA 625 / 8270 / 8310
CAM-17 Metals
LUFT 5 Metals
Lead (7240/7421/239.2/6010)
RCI

Confirm MTBE by 8260
in excel 5/2

| SAMPLE ID (Field Point Name) | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | | | |
|---------------------------------|----------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|--|---|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other | | |
| MW-1 | | 4-29-03 | 3:45 | 3 | vob | X | | | | | X | X | | | | X |
| MW-2 | | 4-29-03 | 3:10 | 3 | vob | X | | | | | X | X | | | | X |
| MW-4 | | 4-29-03 | 2:35 | 3 | vob | X | | | | | X | X | | | | X |
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|---------------------------------|----------------------|-------------------|-------------------------------------|
| Relinquished By: <u>J. Hill</u> | Date: <u>4-30-03</u> | Time: <u>5:00</u> | Received By: <u>Secure location</u> |
| Relinquished By: <u> </u> | Date: <u>4/30/03</u> | Time: <u>9:05</u> | Received By: <u>ER - p 285</u> |
| Relinquished By: <u> </u> | Date: <u>4/30/03</u> | Time: <u>1530</u> | Received By: <u>Meli Valler</u> |

Remarks: E-mail results also

PRESERVATION
 APPROPRIATE CONTAINERS
 METALS
 OTHER

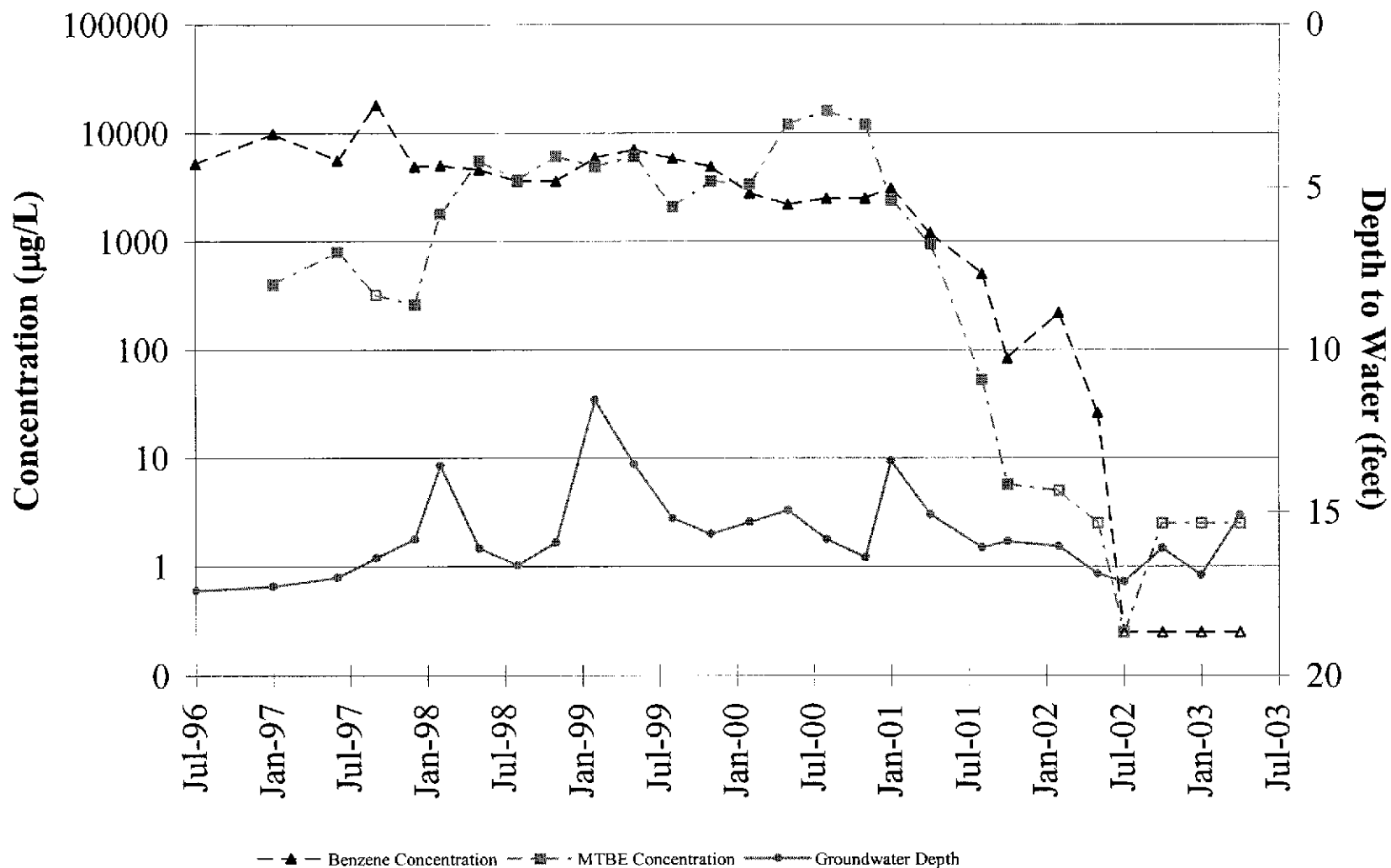
C A M B R I A



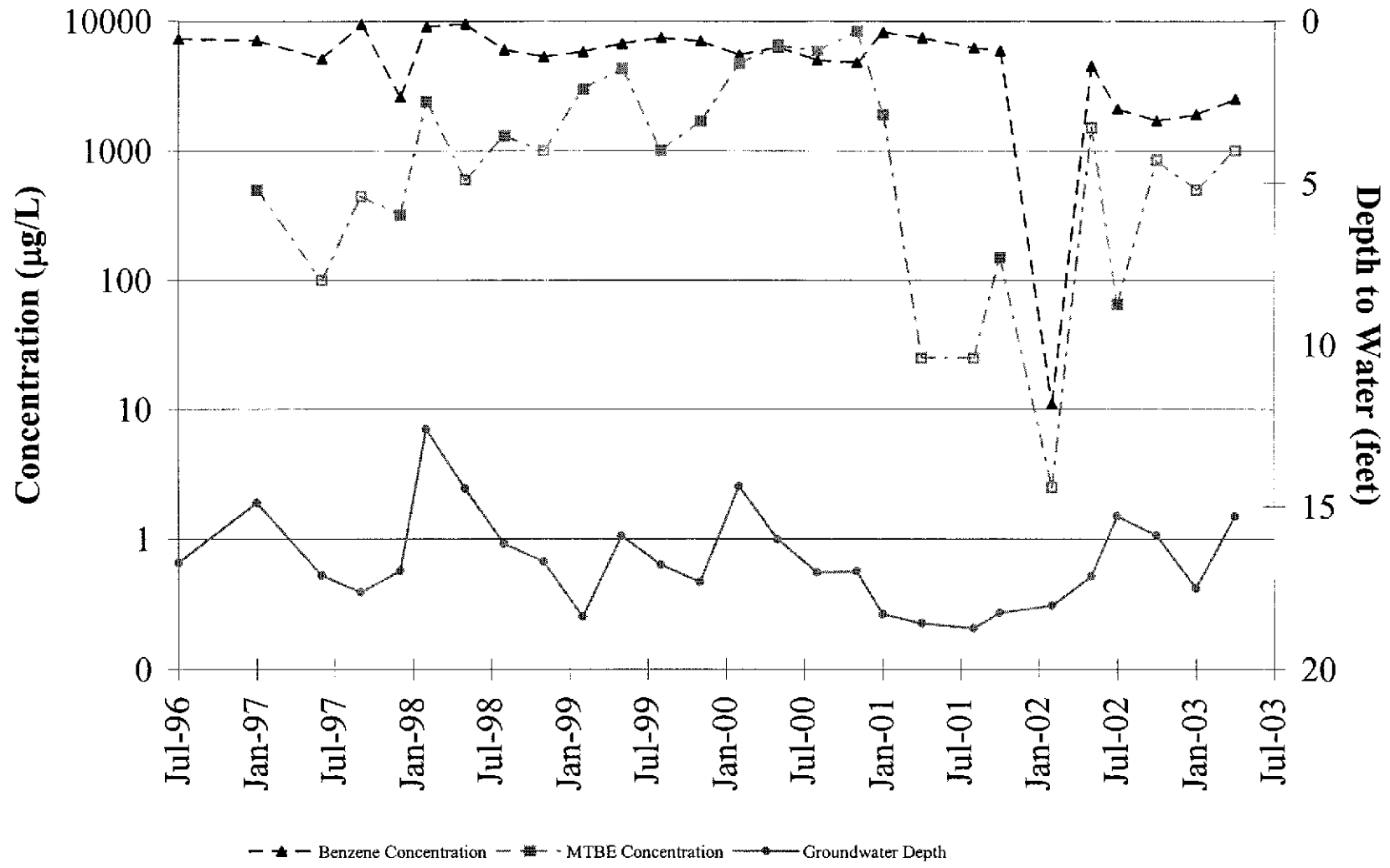
APPENDIX C

Benzene and MTBE Concentration Graphs

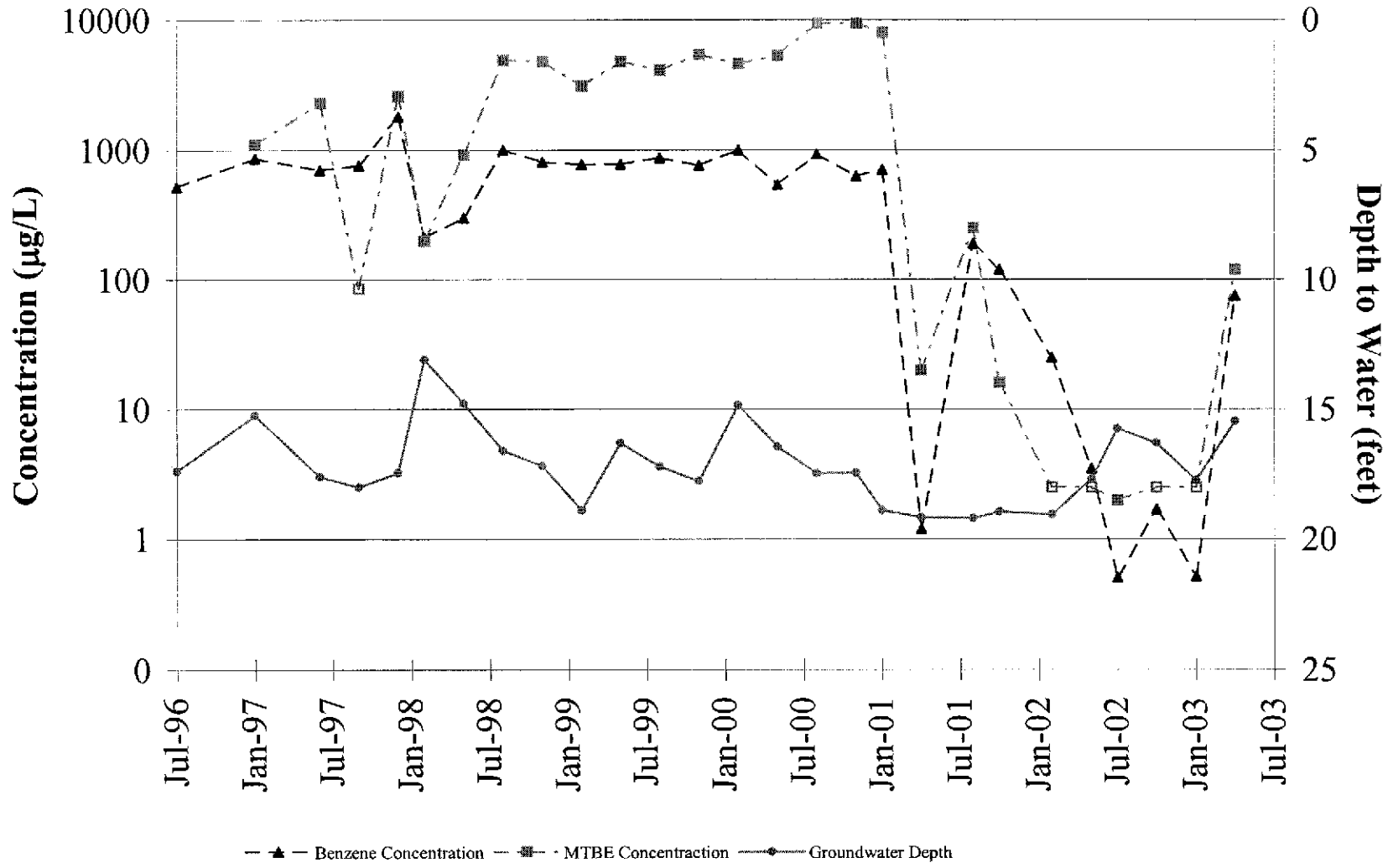
Benzene and MTBE Concentration Trends Well MW-1



Benzene and MTBE Concentration Trends Well MW-2



Benzene and MTBE Concentration Trends Well MW-4



C A M B R I A



APPENDIX D

Electronic Delivery Confirmations

AB2886 Electronic Delivery

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UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title: 2nd Qtr 2003, Groundwater Depth Data for 207 Harrison St.
Oakland

Submittal Date/Time: 7/8/2003 5:10:03 PM

Confirmation Number: 1824589371

[Back to Main Menu](#)

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE [ADMINISTRATOR](#).

AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Your EDF file has been successfully uploaded!

Confirmation Number: 8098824501

Date/Time of Submittal: 7/8/2003 5:11:52 PM

Facility Global ID: T0600100985

Facility Name: OAKLAND AUTO PARTS

Submittal Title: 2nd Qtr 2003, Groundwater Analytical Data for 706 Harrison St., Oakland

Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE ADMINISTRATOR.

C A M B R I A



APPENDIX E

Former Shell Station Groundwater Analytical Results

TABLE TWO
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
 All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl- benzene | Total Xylenes | MTBE |
|-------------------------------|----------|--|---------|-------------------|------------------|--------------------|
| MW-1 | | | | | | |
| 7/3/97 | 18,000 | 2,700 | 350 | 450 | 900 | 7,400 |
| 12/5/98 | 18,000 | 1,500 | 270 | 260 | 560 | 14,000 |
| 3/4/99 | 44,000 | 2,800 | 400 | 440 | 960 | 43,000 |
| 6/17/99 | 33,000 | 2,200 | 250 | 460 | 660 | 25,000 |
| 8/27/99 | 6,000 | 1,000 | 97 | 190 | 230 | 14,000/ 16,000* |
| 12/9/99 | 15,000 | 1,500 | 160 | 220 | 420 | 17,000 |
| 3/7/00 | 9,300 | 1,500 | 210 | 66 | 530 | 12,000 |
| 6/7/00 | 26,000** | 1,700 | < 250 | 360 | 580 | 30,000 |
| 10/11/00 | 13,000** | 1,600 | < 100 | 140 | 160 | 19,000 |
| 1/18/01 | 14,000** | 450 | < 100 | 110 | 230 | 9,600 |
| 4/5/01 | 38,000 | 2,200 | 180 | 290 | 590 | 35,000 |
| 7/17/01 | 35,000** | 1,800 | < 100 | 300 | 170 | 35,000 |
| 10/5/01 | 17,000 | 1,500 | 210 | 420 | 790 | 27,000 |
| 1/18/02 | 18,000 | 1,500 | 120 | 160 | 220 | 22,000 |
| 4/11/02 | 41,000 | 2,700 | 210 | 340 | 380 | 30,000 |
| 7/8/02 | 36,000 | 2,800 | 140 | 360 | 300 | 31,000 |
| 10/9/02 | 30,000 | 1,700 | 310 | < 100 | < 100 | 19,000 |
| 1/29/03 | 26,000 | 2,400 | < 100 | 310 | 520 | 20,000 |
| 4/11/03 | 22,000 | 1,700 | < 100 | 270 | 580 | 16,000 |
| MW-2 | | | | | | |
| 12/5/98 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5 |
| 3/4/99 | | Inaccessible due to car parked over well | | | | < 5 |
| 6/17/99 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5 |
| 8/27/99 | | Inaccessible due to car parked over well | | | | |
| 12/9/99 | | Inaccessible due to car parked over well | | | | |
| 3/7/00 | | Inaccessible due to car parked over well | | | | |
| 6/7/00 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 10/11/00 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 1/18/01 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 4/5/01 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 7/17/01 | | No Longer Sampled | | | | |
| MW-3 | | | | | | |
| 12/5/98 | 6,500 | < 50 | 50 | 60 | 50 | 3,900 |
| 3/4/99 | 2,800 | < 25 | < 25 | < 25 | < 25 | 1,600 |
| 6/17/99 | 1,000 | < 10 | < 10 | < 10 | < 10 | 1,400 |
| 8/27/99 | 230 | < 0.5 | 0.51 | 0.5 | 1 | 1,500/ 1,600* |
| 12/9/99 | 870** | < 0.5 | < 0.5 | < 0.5 | < 0.5 | 2,100 |
| 3/7/00 | 150** | 4 | < 0.5 | < 0.5 | < 0.5 | 830 |
| 6/7/00 | 140** | < 0.5 | < 0.5 | < 0.5 | < 0.5 | 1,100 |
| 10/11/00 | 620** | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 1,500 |
| 1/18/01 | 1,200** | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 1,000 |
| 4/5/01 | 1,700** | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 1,900 |
| 7/17/01 | 1,400** | < 10 | < 10 | < 10 | < 10 | 1,700 |
| 10/5/01 | < 1,000 | < 10 | < 10 | < 10 | < 10 | 1,700 |
| 1/18/02 | 1,600 | 26 | 20 | 16 | 54 | 2,100 |
| 4/11/02 | 2,600 | 21 | 16 | < 10 | 21 | 2,300 |
| 7/8/02 | 2,800 | < 10 | < 10 | < 10 | < 10 | 3,800 |
| 10/9/02 | 6,000 | < 50 | < 50 | < 50 | < 50 | 4,900 |
| 1/29/03 | 1,800 | < 10 | < 10 | < 10 | < 10 | 2,300 |
| 4/11/03 | 2,900 | < 25 | < 25 | < 25 | < 25 | 3,100 |

TABLE TWO
Certified Analytical Results for GROUNDWATER Samples
Chan's Former Shell Station
 All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl- benzene | Total Xylenes | MTBE |
|-------------------------------|------------|-----------|------------|-------------------|------------------|------------------|
| MW-4 | | | | | | |
| 12/5/98 | 880 | 3 | <0.5 | <0.5 | <0.5 | 950 |
| 3/4/99 | 3,800 | <25 | <25 | <25 | <25 | 3,700 |
| 6/17/99 | 2,700 | <25 | <25 | <25 | <25 | 2,700 |
| 8/27/99 | 440 | 4.7 | 1.1 | 0.58 | 1.3 | 1,600/ 1,700* |
| 12/9/99 | 1,100** | <2.5 | <2.5 | <2.5 | <2.5 | 1,700 |
| 3/7/00 | <250 | <2.5 | <2.5 | <2.5 | <2.5 | 1,700 |
| 6/7/00 | 530** | 8.8 | <2.5 | <2.5 | <2.5 | 440 |
| 10/11/00 | 700** | 3.9 | <2.5 | <2.5 | <2.5 | 680 |
| 1/18/01 | 2,000** | <2.5 | <2.5 | <2.5 | <2.5 | 780 |
| 4/5/01 | 810** | <2.5 | <2.5 | <2.5 | <2.5 | 620 |
| 7/17/01 | 880** | <2.5 | <2.5 | <2.5 | <2.5 | 570 |
| 10/5/01 | 550** | <2.5 | <2.5 | <2.5 | <2.5 | 710 |
| 1/18/02 | 960** | <5.0 | <5.0 | <5.0 | <5.0 | 1,300 |
| 4/11/02 | 1,100** | <5.0 | <5.0 | <5.0 | <5.0 | 550 |
| 7/8/02 | 1,200** | <5.0 | <5.0 | <5.0 | <5.0 | 890 |
| 10/9/02 | 1,300** | <5.0 | <5.0 | <5.0 | <5.0 | 880 |
| 1/29/03 | 530** | <1.0 | <1.0 | <1.0 | <1.0 | 190 |
| 4/11/03 | 690** | <2.5 | <2.5 | <2.5 | <2.5 | 310 |
| MW-5 | | | | | | |
| 8/29/01 | 14,000 | 1,300 | 470 | 230 | 800 | 14,000 |
| 1/18/02 | 24,000 | 3,200 | 1,300 | 390 | 1,500 | 5,700 |
| 4/11/02 | 23,000 | 2,700 | 980 | 38 | 950 | 4,300 |
| 7/8/02 | 19,000 | 3,300 | 25 | 360 | 1,100 | 2,100 |
| 10/9/02 | 24,000 | 2,800 | 990 | 360 | 820 | 2,400 |
| 1/29/03 | 17,000 | 2,100 | 1,400 | 380 | 1,400 | <250 |
| 4/11/03 | 26,000 | 2,900 | 2,200 | 590 | 2,200 | 630 |
| EW-1 | | | | | | |
| 1/18/02 | 11,000 | 1,000 | <100 | 220 | 350 | 6,700 |
| 4/11/02 | 17,000 | 1,000 | <100 | 120 | 140 | 9,700 |
| 7/8/02 | 21,000 | 1,300 | <100 | <100 | 200 | 12,000 |
| 10/9/02 | 12,000 | 900 | <25 | <25 | 200 | 9,200 |
| 1/29/03 | 12,000 | 860 | 73 | 130 | 500 | 4,500 |
| 4/11/03 | 8,700 | 890 | <25 | <25 | 82 | 5,400 |
| RBSL | 400 | 46 | 130 | 290 | 15 | 1,800 |

Notes:

* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

RBSL = Risk Based Screening Levels presented in the "Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region.

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory detection limit.