RO 321

aqua science engineers inc.

July 12, 2005



# QUARTERLY GROUNDWATER MONITORING REPORT
# APRIL 2005 GROUNDWATER SAMPLING
# ASE JOB NO. 3412

at
Yee Property
726 Harrison Street
Oakland, CA 94602

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
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Danville, CA 94526
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## 1.0 INTRODUCTION

Site Location (Site), See Figure 1
Yee Property
(Previously Former Chan's Shell Station)
726 Harrison Street
Oakland, CA 94602
(510) 444-6583

Responsible Party
Peter Yee
1000 San Antonio Avenue
Alameda, CA 94501

Environmental Consulting Firm
Aqua Science Engineers, Inc. (ASE)
208 W. El Pintado
Danville, CA 94526
Contact: Robert Kitay, Senior Geologist
(925) 820-9391

Agency Review
Alameda County Health
Care Services Agency (ACHCSA)
1131 Harbor Bay Pkwy
Suite 250
Alameda, CA 94502
Contact: Mr. Barney Chan
(510) 567-6700

California Regional Water
Quality Control Board (RWQCB)
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
Contact: Ms. Betty Graham
(510) 622-2433

The following is a report detailing the results of the April 2005 quarterly groundwater sampling at the Yee Property, previously referred to as the former Chan's Shell Station. This sampling was conducted as required by the ACHCSA and RWQCB. ASE has prepared this report on behalf of Peter Yee, the current responsible party, who purchased the property from Kin Chan. This report is intended to supplement the ASE report: "Report of Soil and Groundwater Assessment" dated January 8, 1999.

## 2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On April 28, 2005, ASE measured the depth to groundwater in all five site monitoring wells using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen. No free-floating hydrocarbons or sheen was observed in any site well. ASE generally coordinates this groundwater sampling with Cambria Environmental Technology, Inc., (Cambria), who is investigating the adjacent property, located at 706 Harrison Street, referred to in this report as the former ARCO station. However, due to cars parked over the Yee site's wells, ASE sampled one day later than Cambria. Groundwater elevation data for both sites are presented in Tables One and Two. A groundwater potentiometric surface map illustrating groundwater elevation contours is presented as Figure 2. The potentiometric surface map uses only data from the Yee property for contouring, although the data from the former Acro is also plotted on this figure. The groundwater flow direction below the site is generally to the south-southwest at a gradient of 0.012-feet/foot.

## 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSIS

On April 28, 2005, ASE collected groundwater samples from monitoring wells MW-1, MW-3, MW-4 and MW-5. With ACHCSA approval, quarterly groundwater sampling of MW-2 and extraction well EW-1 has been suspended. Prior to sampling, each well was purged of three well casing volumes of groundwater using disposable polyethylene bailers. Petroleum hydrocarbon odors were noted during the purging and sampling of all sampled monitoring wells. The parameters pH, temperature, and conductivity were monitored during the well purging, and samples were not collected until these parameters stabilized. Groundwater samples were collected from each well using disposable polyethylene bailers and were decanted from the bottom of the bailers using low-flow emptying devices into 40-ml volatile organic analysis (VOA) vials, pre-preserved with hydrochloric acid. The samples were capped without headspace, labeled, and placed in coolers with wet ice for transport to Severn Trent Laboratories (STL) San Francisco of Pleasanton, California (ELAP #2496) under appropriate chain-of-custody documentation. Well sampling field logs are presented in Appendix A.

The well purge water was placed into a 55-gallon steel drum, labeled, and staged on-site for temporary storage until proper off-site disposal could be arranged.

The groundwater samples were analyzed by STL San Francisco for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene and total xylenes (collectively known as BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8260B. The analytical results for this and previous sampling periods are presented in Table Three. The certified analytical report and chain-of-custody documentation are included as Appendix B. Previous analytical data for the former ARCO station is summarized in Table Four.

## 4.0 CONCLUSIONS

The results for MW-1 showed a slight increase in concentrations of benzene and MTBE, but a significant decrease in TPH-G concentrations this quarter.

The results for MW-3 and MW-4 showed a decrease in MTBE concentration this quarter.

The results for MW-5 showed an increase in TPH-G, total xylenes and MTBE concentrations, but a decrease in benzene, ethylbenzene and toluene concentrations from last quarter.

The TPH-G, BTEX and/or MTBE concentrations detected in groundwater samples collected from all wells sampled (except for MW-2) remain in excess of Environmental Screening Levels (ESLs) as presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater" document prepared by the California Regional Water Quality Control Board, San Francisco Bay Region dated July 2003.

## 5.0 RECOMMENDATIONS

ASE recommends continued groundwater monitoring on a quarterly basis. The next groundwater sampling is scheduled for July 2005.

Additionally, ASE has received approval from the ACHCSA for a workplan to conduct in-situ chemical oxidation of hydrocarbons in the soil and groundwater below the site. The property has recently been purchased, and the remediation work will begin upon authorization by the new owner.

## 6.0 REPORT LIMITATIONS

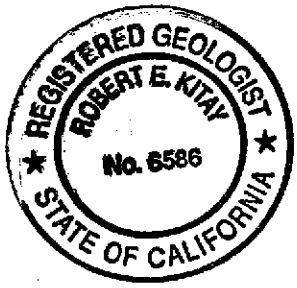
The results presented in this report represent the conditions at the time of the groundwater sampling, at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-DHS certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project, and trust that this report meets your needs. Please feel free to call us at (925) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.


David Allen, R.E.A.
Senior Project Manager

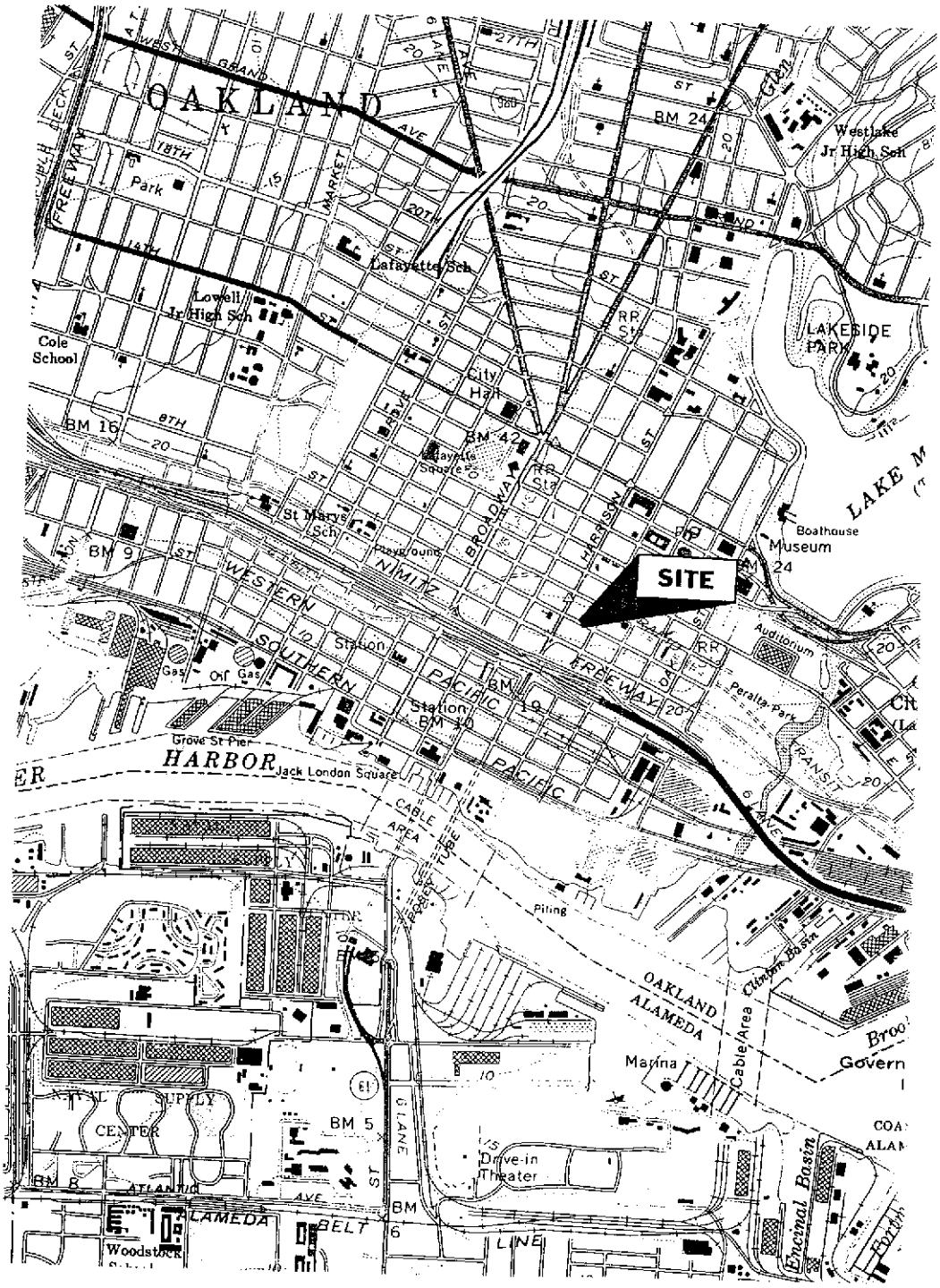



Robert E. Kitay, R.G., R.E.A.
Senior Geologist

Attachments: Figures 1 and 2
Appendices A and B

cc: Mr. Barney Chan, Alameda County Health Care Services
Ms. Betty Graham, RWQCB, San Francisco Bay Region

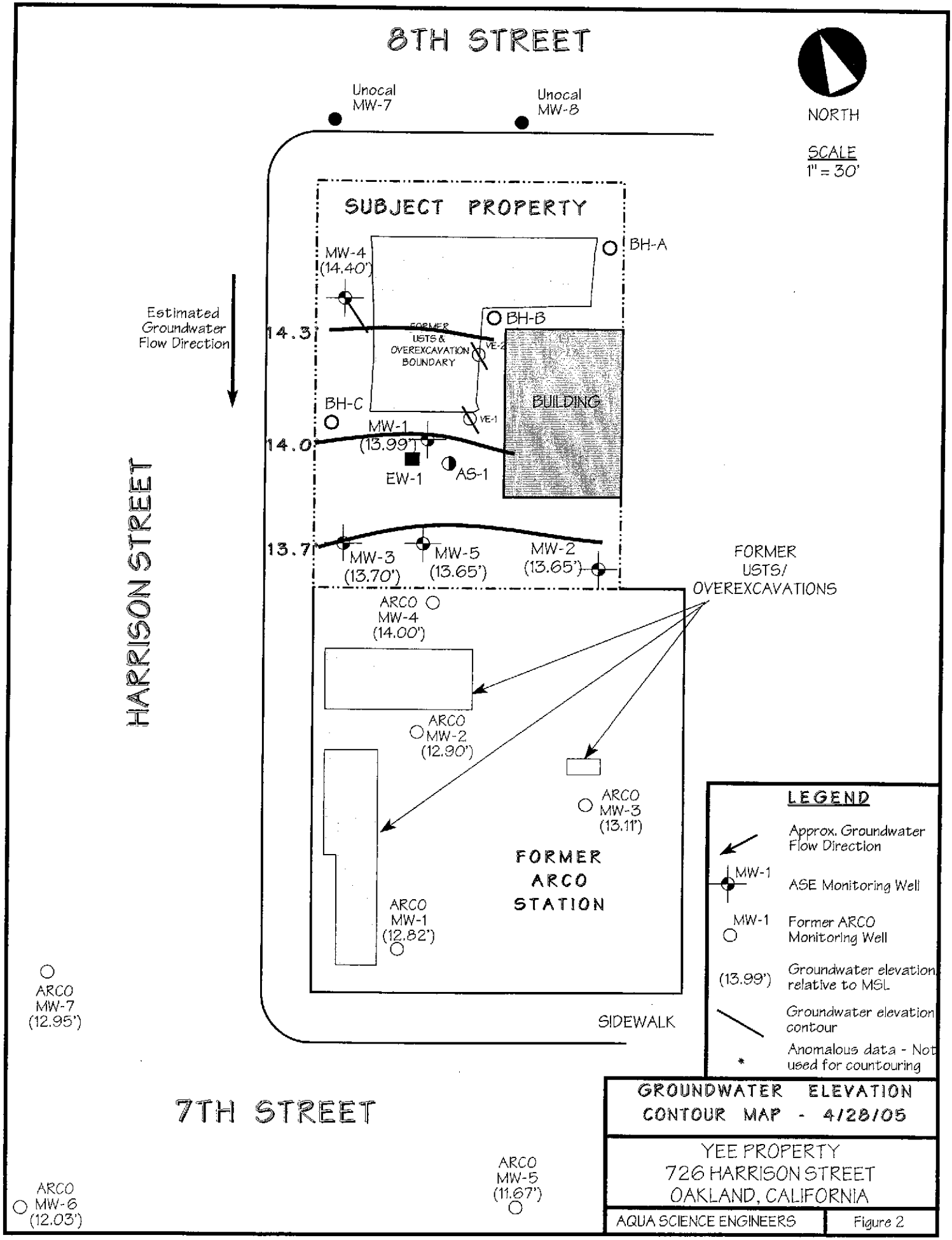
NORTH




# SITE LOCATION MAP

YEE PROPERTY
726 HARRISON STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 1




GROUNDWATER ELEVATION CONTOUR MAP - 4/28/05

YEE PROPERTY
726 HARRISON STREET
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS | Figure 2

# TABLE ONE
## Groundwater Elevation Data
## Yee Property
## 726 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-1 | 12/15/98 | 31.95* | 17.32 | 14.63 |
| | 3/4/99 | | 15.52 | 16.43 |
| | 6/17/99 | | 16.9 | 15.05 |
| | 8/27/99 | | 17.39 | 14.56 |
| | 12/9/99 | | 18.03 | 13.92 |
| | 3/7/00 | | 15.11 | 16.84 |
| | 6/7/00 | | 16.66 | 15.29 |
| | 10/11/00 | | 18.08 | 13.87 |
| | 1/18/01 | | 17.96 | 13.99 |
| | 4/5/01 | | 16.35 | 15.60 |
| | 7/17/01 | | 16.94 | 15.01 |
| | 10/5/01 | 28.98 | 17.35 | 11.63 |
| | 1/18/02 | | 15.40 | 13.58 |
| | 4/11/02 | | 15.76 | 13.22 |
| | 7/8/02 | | 16.17 | 12.81 |
| | 10/9/02 | | 16.72 | 12.26 |
| | 1/29/03 | | 16.26 | 12.72 |
| | 4/11/03 | | 16.56 | 12.42 |
| | 7/18/03 | | 16.42 | 12.56 |
| | 10/9/03 | | 16.88 | 12.10 |
| | 1/28/04 | | 16.10 | 12.88 |
| | 4/7/04 | | 15.43 | 13.55 |
| | 7/23/04 | | 16.41 | 12.57 |
| | 10/12/04 | | 17.73 | 11.25 |
| | 1/29/05 | | 15.02 | 13.96 |
| | **4/28/05** | | **14.99** | **13.99** |

# TABLE ONE
## Groundwater Elevation Data
## Yee Property
## 726 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-2 | 12/15/98 | 32.40* | 18.03 | 14.37 |
| | 3/4/99 | | 16.11 | 16.29 |
| | 6/17/99 | | 17.72 | 14.68 |
| | 8/27/99 | Inaccessible | | |
| | 12/9/99 | Inaccessible | | |
| | 3/7/00 | Inaccessible | | |
| | 6/7/00 | | 17.67 | 14.73 |
| | 10/11/00 | | 18.91 | 13.49 |
| | 1/18/01 | | 18.66 | 13.74 |
| | 4/5/01 | | 16.97 | 15.43 |
| | 7/17/01 | | 17.54 | 14.86 |
| | 10/5/01 | 29.44 | 17.98 | 11.46 |
| | 1/18/02 | | 15.87 | 13.57 |
| | 4/11/02 | | 16.36 | 13.08 |
| | 7/8/02 | | 16.72 | 12.72 |
| | 10/9/02 | | 17.33 | 12.11 |
| | 1/29/03 | | 16.82 | 12.62 |
| | 4/11/03 | | 17.15 | 12.29 |
| | 7/18/03 | | 17.05 | 12.39 |
| | 10/9/03 | | 17.52 | 11.92 |
| | 1/28/04 | | 16.70 | 12.74 |
| | 4/7/04 | | 16.02 | 13.42 |
| | 7/23/04 | Inaccessible | | |
| | 10/12/04 | | 17.31 | 12.13 |
| | 1/29/05 | | 15.46 | 13.98 |
| | **4/28/05** | | **15.79** | **13.65** |

# TABLE ONE
## Groundwater Elevation Data
## Yee Property
## 726 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-3 | 12/15/98 | 31.61* | 17.26 | 14.35 |
| | 3/4/99 | | 15.47 | 16.14 |
| | 6/17/99 | | 16.92 | 14.69 |
| | 8/27/99 | | 17.40 | 14.21 |
| | 12/9/99 | | 18.01 | 13.60 |
| | 3/7/00 | | 16.15 | 15.46 |
| | 6/7/00 | | 16.85 | 14.76 |
| | 10/11/00 | | 18.07 | 13.54 |
| | 1/18/01 | | 17.89 | 13.72 |
| | 4/5/01 | | 16.21 | 15.40 |
| | 7/17/01 | | 16.90 | 14.71 |
| | 10/5/01 | 28.64 | 17.32 | 11.32 |
| | 1/18/02 | | 15.35 | 13.29 |
| | 4/11/02 | | 15.82 | 12.82 |
| | 7/8/02 | | 16.15 | 12.49 |
| | 10/9/02 | | 16.67 | 11.97 |
| | 1/29/03 | | 16.19 | 12.45 |
| | 4/11/03 | | 16.49 | 12.15 |
| | 7/18/03 | | 16.42 | 12.22 |
| | 10/9/03 | | 16.80 | 11.84 |
| | 1/28/03 | | 15.94 | 12.70 |
| | 4/7/04 | | 15.28 | 13.36 |
| | 7/23/04 | | 16.15 | 12.49 |
| | 10/12/04 | | 16.63 | 12.01 |
| | 1/29/05 | | 16.15 | 12.49 |
| | **4/28/05** | | **14.94** | **13.70** |

# TABLE ONE
## Groundwater Elevation Data
## Yee Property
## 726 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-4 | 12/15/98 | 32.53* | 17.59 | 14.94 |
| | 3/4/99 | | 15.88 | 16.65 |
| | 6/17/99 | | 17.14 | 15.39 |
| | 8/27/99 | | 17.65 | 14.88 |
| | 12/9/99 | | 18.28 | 14.25 |
| | 3/7/00 | | 15.41 | 17.12 |
| | 6/7/00 | | 17.09 | 15.44 |
| | 10/11/00 | | 18.33 | 14.20 |
| | 1/18/01 | | 18.23 | 14.30 |
| | 4/5/01 | | 16.69 | 15.84 |
| | 7/17/01 | | 17.32 | 15.21 |
| | 10/5/01 | 29.58 | 17.71 | 11.87 |
| | 1/18/02 | | 15.85 | 13.73 |
| | 4/11/02 | | 16.14 | 13.44 |
| | 7/8/02 | | 16.56 | 13.02 |
| | 10/9/02 | | 17.09 | 12.49 |
| | 1/29/03 | | 16.65 | 12.93 |
| | 4/11/03 | | 16.93 | 12.65 |
| | 7/18/03 | | 16.78 | 12.80 |
| | 10/9/03 | | 17.26 | 12.32 |
| | 1/28/04 | | 16.38 | 13.20 |
| | 4/7/04 | | 15.64 | 13.94 |
| | 7/23/04 | | 16.58 | 13.00 |
| | 10/12/04 | Inaccessible | | |
| | 1/29/05 | | 14.90 | 14.68 |
| | **4/28/05** | | **15.18** | **14.40** |

# TABLE ONE
## Groundwater Elevation Data
## Yee Property
## 726 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-5 | 8/29/01 | 29.06 | 17.42 | 11.64 |
| | 1/18/02 | | 15.68 | 13.38 |
| | 4/11/02 | | 16.17 | 12.89 |
| | 7/8/02 | | 16.51 | 12.55 |
| | 10/9/02 | | 17.10 | 11.96 |
| | 1/29/03 | | 16.58 | 12.48 |
| | 4/11/03 | | 16.87 | 12.19 |
| | 7/18/03 | | 16.77 | 12.29 |
| | 10/9/03 | | 17.21 | 11.85 |
| | 1/28/04 | | 16.34 | 12.72 |
| | 4/7/04 | | 15.38 | 13.68 |
| | 7/23/04 | | 16.55 | 12.51 |
| | 10/12/04 | | 17.02 | 12.04 |
| | 1/29/05 | | 15.23 | 13.83 |
| | **4/28/05** | | **15.41** | **13.65** |
| EW-1 | 1/18/02 | 28.89 | 15.35 | 13.54 |
| | 4/11/02 | | 15.73 | 13.16 |
| | 7/8/02 | | 16.13 | 12.76 |
| | 10/9/02 | | 16.70 | 12.19 |
| | 1/29/03 | | 16.20 | 12.69 |
| | 4/11/03 | | 16.52 | 12.37 |
| | 7/18/03 | | 16.38 | 12.51 |
| | 10/9/03 | | 16.84 | 12.05 |
| | 1/28/04 | | 15.94 | 12.95 |
| | 4/7/04 | | 15.02 | 13.87 |
| | 7/23/04 | | 16.01 | 12.88 |
| | 10/12/04 | | 16.46 | 12.43 |
| | 1/29/05 | | 14.91 | 13.98 |
| | **4/28/05** | **Not measured** | | |

* Top of casing elevation relative to arbitrary project datum

# TABLE TWO

Groundwater Elevation Data
Former ARCO Station
706 Harrison St., Oakland, CA

| Well ID | Date of Measurement | Top of Casing Elevation* (Relative to Mean Sea Level) | Depth to Water (feet) | Groundwater Elevation (project data) |
|---|---|---|---|---|
| MW-1 | 7/18/03 | 29.15 | 14.50 | 14.65 |
| | 10/9/03 | 26.17 | 13.81 | 12.36 |
| | 1/28/04 | | 13.09 | 13.08 |
| | 4/7/04 | | 14.97 | 11.20 |
| | 7/23/04 | | 14.15 | 12.02 |
| | 10/12/04 | | 16.30 | 9.87 |
| | **4/27/05** | | **13.35** | **12.82** |
| MW-2 | 7/18/03 | 30.51 | 16.84 | 13.67 |
| | 10/9/03 | 27.53 | 16.05 | 11.48 |
| | 1/28/04 | | 15.39 | 12.14 |
| | 4/7/04 | | 16.01 | 11.52 |
| | 7/23/04 | | 15.30 | 12.23 |
| | 10/12/04 | | 17.87 | 9.66 |
| | **4/27/05** | | **14.63** | **12.90** |
| MW-3 | 7/18/03 | 29.77 | 14.80 | 14.97 |
| | 10/9/03 | 26.79 | 14.13 | 12.66 |
| | 1/28/04 | | 13.47 | 13.32 |
| | 4/7/04 | | 15.41 | 11.38 |
| | 7/23/04 | | 14.54 | 12.25 |
| | 10/12/04 | | 16.58 | 10.21 |
| | **4/27/05** | | **13.68** | **13.11** |
| MW-4 | 7/18/03 | 31.18 | 17.08 | 14.10 |
| | 10/9/03 | 28.20 | 16.25 | 11.95 |
| | 1/28/04 | | 15.65 | 12.55 |
| | 4/7/04 | | 16.49 | 11.71 |
| | 7/23/04 | | 15.86 | 12.34 |
| | 10/12/04 | | 18.05 | 10.15 |
| | **4/27/05** | | **14.20** | **14.00** |
| MW-5 | 7/18/03 | 28.04 | 14.28 | 13.76 |
| | 10/9/03 | 25.07 | 13.36 | 11.71 |
| | 1/28/04 | | 12.68 | 12.39 |
| | 4/7/04 | | 14.71 | 10.36 |
| | 7/23/04 | | 13.49 | 11.58 |
| | 10/12/04 | | 15.88 | 9.19 |
| | **4/27/05** | | **13.40** | **11.67** |
| MW-6 | 7/18/03 | 29.10 | 15.47 | 13.63 |
| | 10/9/03 | 26.13 | 14.73 | 11.40 |
| | 1/28/04 | | 14.05 | 12.08 |
| | 4/7/04 | | 14.41 | 11.72 |
| | 7/23/04 | | 15.15 | 10.98 |
| | 10/12/04 | | 17.27 | 8.86 |
| | **4/27/05** | | **14.10** | **12.03** |
| MW-7 | 7/18/03 | 29.67 | 15.19 | 14.48 |
| | 10/9/03 | 26.70 | 14.45 | 12.25 |
| | 1/28/04 | | 13.88 | 12.82 |
| | 4/7/04 | | 15.71 | 10.99 |
| | 7/23/04 | | 14.85 | 11.85 |
| | 10/12/04 | | 16.90 | 9.80 |
| | **4/27/05** | | **13.75** | **12.95** |

* Survey data updated on 10/27/2003

# TABLE THREE

Summary of Analytical Results for GROUNDWATER Samples

Yee Property

726 Harrison St., Oakland, CA

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 |
| 7/18/03 | 40,000 | 3,200 | 290 | 480 | 830 | 39,000 |
| 10/9/03 | 54,000** | 3,300 | < 130 | 350 | 310 | 49,000 |
| 1/28/04 | 26,000*** | 3,000 | 310 | 420 | 800 | 31,000 |
| 4/7/04 | 33,000*** | 2,800 | 130 | 310 | 310 | 39,000 |
| 7/23/04 | 56,000*** | 4,500 | < 250 | 390 | < 500 | 53,000 |
| 10/12/04 | 25,000*** | 1,400 | < 250 | < 250 | < 500 | 25,000 |
| 1/29/05 | 24,000 | 1,600 | < 100 | 160 | < 200 | 19,000 |
| **4/28/05** | **< 10,000** | **2,000** | **< 100** | **160** | **100** | **34,000** |
| 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 | | | | | |
| 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 | | | | | |

# TABLE THREE

Summary of Analytical Results for GROUNDWATER Samples

Yee Property

726 Harrison St., Oakland, CA

All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes | MTBE |
|---|---|---|---|---|---|---|
| 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 |
| 7/18/03 | 3,400 | < 10 | < 10 | < 10 | < 10 | 3,200 |
| 10/9/03 | 2,300 | < 10 | < 10 | < 10 | < 10 | 2,700 |
| 1/28/03 | 1,700** | < 10 | < 10 | < 10 | < 10 | 2,900 |
| 4/7/04 | 2,700** | < 10 | < 10 | < 10 | < 20 | 3,600 |
| 7/23/04 | 4,200** | < 25 | < 25 | < 25 | < 50 | 4,900 |
| 10/12/04 | 5,000** | < 50 | < 50 | < 50 | < 100 | 5,900 |
| 1/29/05 | < 1,000 | < 10 | < 10 | < 10 | < 20 | 3,100 |
| **4/28/05** | **< 200** | **< 2.0** | **< 2.0** | **< 2.0** | **< 2.0** | **1,300** |

# TABLE THREE

Summary of Analytical Results for GROUNDWATER Samples

Yee Property

726 Harrison St., Oakland, CA

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 |
| 7/18/03 | 1,600** | < 10 | < 10 | < 10 | < 10 | 1,300 |
| 10/9/03 | 1500*** | < 10 | < 10 | < 10 | < 10 | 1,400 |
| 1/28/04 | 1,200** | < 10 | < 10 | < 10 | < 10 | 1,900 |
| 4/7/04 | 1,900** | < 10 | < 10 | < 10 | < 20 | 2,200 |
| 7/23/04 | 1,800** | < 10 | < 10 | < 10 | < 20 | 1,600 |
| 10/12/04 | Inaccessible due to car parked over well | | | | | |
| 1/29/05 | < 1,300 | < 13 | < 13 | < 13 | < 25 | 3,900 |
| **4/28/05** | **510** | **< 1.5** | **< 1.5** | **< 1.5** | **< 1.5** | **510** |
| 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 |
| 7/18/03 | 26,000 | 3,500 | 1,700 | 480 | 1,300 | 1,300 |
| 10/9/03 | 27,000 | 3,800 | 1,900 | 510 | 1,700 | 1,200 |
| 1/28/04 | 29,000 | 4,800 | 2,900 | 770 | 2,300 | 3,300 |
| 4/7/04 | 23,000 | 4,400 | 2,700 | 720 | 2,200 | 1,700 |
| 7/23/04 | 29,000 | 5,200 | 2,200 | 810 | 1,400 | 2,200 |
| 10/12/04 | 26,000 | 4,300 | 2,000 | 670 | 1,300 | 2,200 |
| 1/29/05 | 29,000 | 4,600 | 2,500 | 750 | 1,400 | 2,200 |
| **4/28/05** | **32,000** | **3,300** | **2,300** | **530** | **2,100** | **4,100** |

# TABLE THREE

## Summary of Analytical Results for GROUNDWATER Samples

## Yee Property

## 726 Harrison St., Oakland, CA

## All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes | MTBE |
|---|---|---|---|---|---|---|
| **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 |
| 7/18/03 | 8,200 | 650 | 77 | 99 | 140 | 4,300 |
| 10/9/03 | 5,700** | 500 | 28 | 53 | 35 | 3,600 |
| 1/28/04 | 17,000*** | 1,600 | 90 | 250 | 280 | 9,700 |
| 4/7/04 | | | No longer sampled | | | |
| ESL | 400 | 46 | 130 | 290 | 13 | 1,800 |

Notes:

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

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

*** Sample contains a discrete peak in addition to gasoline

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" 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 method reporting limit.

# TABLE FOUR

Summary of Analytical Results for GROUNDWATER Samples

Former ARCO Station

706 Harrison St., Oakland, CA

All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes | MTBE |
|---|---|---|---|---|---|---|
| MW-1 | | | | | | |
| 7/18/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 10/9/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 1/28/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 4/7/04 | 180 | 60 | 0.56 | 1.9 | < 0.5 | < 5.0 |
| 7/23/04 | 130 | 36 | < 0.5 | 0.65 | < 0.5 | < 5.0 |
| 10/12/04 | < 50 | 2.5 | 1.5 | < 0.5 | 0.86 | < 5.0 |
| **4/27/05** | **< 50** | **< 0.5** | **< 0.5** | **< 0.5** | **< 0.5** | **< 5.0** |
| MW-2 | | | | | | |
| 7/18/03 | 57,000 | 2,100 | 8,700 | 2,200 | 10,000 | < 50* |
| 10/9/03 | 49,000 | 1,800 | 7,000 | 1,700 | 7,600 | < 1,500/26 |
| 1/28/04 | 550 | 21 | 33 | 3 | 61 | < 100 |
| 4/7/04 | 41,000 | 2,500 | 11,000 | 1,900 | 8,000 | < 2,000 |
| 7/23/04 | 81,000 | 2,000 | 12,000 | 2,500 | 12,000 | < 2,000 |
| 10/12/04 | 75,000 | 2,600 | 13,000 | 2,300 | 11,000 | < 1,300 |
| **4/27/05** | **61,000** | **2,800** | **11,000** | **1,600** | **7,000** | **< 2,700** |
| MW-3 | | | | | | |
| 7/18/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 1/28/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 7/23/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| MW-4 | | | | | | |
| 7/18/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | 0.74* |
| 10/9/03 | 210 | 5 | 0.57 | 1.6 | 1.1 | < 10/10 |
| 1/28/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 4/12/04 | 770 | 56 | 3.2 | 7.0 | 6.5 | 120/160 |
| 7/23/04 | 1100 | 130 | 11 | 17.0 | 17 | 790/800 |
| 10/12/04 | 150 | 0.86 | < 0.5 | < 0.5 | 0.97 | < 10 |
| **4/27/05** | **3,000** | **520** | **100** | **27** | **86** | **600/480** |
| MW-5 | | | | | | |
| 7/18/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 1/28/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 7/23/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| MW-6 | | | | | | |
| 7/18/03 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 1/28/04 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 5.0 |
| 7/23/04 | 3,300 | 1,300 | < 5.0 | 52 | 9.7 | < 50 |
| **4/27/05** | **< 50** | **< 0.5** | **< 0.5** | **< 0.5** | **< 0.5** | **< 5.0/<0.5** |

# TABLE FOUR

Summary of Analytical Results for GROUNDWATER Samples

Former ARCO Station

706 Harrison St., Oakland, CA

All results are in parts per billion (ppb)

| Well ID & Dates Sampled | TPH-G | Benzene | Toluene | Ethyl-benzene | Total Xylenes | MTBE |
|---|---|---|---|---|---|---|
| MW-7 | | | | | | |
| 7/18/03 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| 1/28/04 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <5.0 |
| 7/23/04 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 130/120 |
| **4/27/05** | **<50** | **<0.5** | **<0.5** | **<0.5** | **<0.5** | **<5.0/1.3** |
| ESL | * 400 | 46 | 130 | 290 | 13 | 1,800 |

Notes:

* Indicates EPA Method 8260

Concentrations separated by a "/" indicate results by both EPA Methods 8020/8260

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater (July 2003)" 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 method reporting limit.

# APPENDIX A

Well Sampling Field Logs

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME CHAN / YEE

JOB NUMBER 3412 DATE OF SAMPLING 04.28.05

WELL ID. 1 SAMPLER DA

TOTAL DEPTH OF WELL 27.2 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 14.99

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 12.21

NUMBER OF GALLONS PER WELL CASING VOLUME 1.95

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 5.8

EQUIPMENT USED TO PURGE WELL DISP. BAILER

TIME EVACUATION STARTED 0930 TIME EVACUATION COMPLETED 0950

TIME SAMPLES WERE COLLECTED 0955

DID WELL GO DRY NO AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 6

SAMPLING DEVICE DISP. BAILER

SAMPLE COLOR CLEAR ODOR/SEDIMENT NONE / NO D. HC

### CHEMICAL DATA

| VOLUME PURGED | TEMPERATURE | PH | CONDUCTIVITY |
|---|---|---|---|
| 1 | 67.6 | 6.70 | 640 |
| 2 | 67.9 | 6.73 | 650 |
| 3 | 68.1 | 6.72 | 650 |

### SAMPLES COLLECTED

| SAMPLE | # OF CONTAINERS | SIZE AND TYPE OF CONTAINER | ANALYSIS | PRESERVED |
|---|---|---|---|---|
| MW-1 | 3 | 40 ML VOA | 8260 | ✓ |
| | | | | |
| | | | | |

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME CHAN/YEE

JOB NUMBER 3412 DATE OF SAMPLING 04-28-05

WELL ID. 2 SAMPLER DA

TOTAL DEPTH OF WELL WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 15.79

PRODUCT THICKNESS

DEPTH OF WELL CASING IN WATER

NUMBER OF GALLONS PER WELL CASING VOLUME

NUMBER OF WELL CASING VOLUMES TO BE REMOVED

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING

EQUIPMENT USED TO PURGE WELL

TIME EVACUATION STARTED TIME EVACUATION COMPLETED

TIME SAMPLES WERE COLLECTED

DID WELL GO DRY AFTER HOW MANY GALLONS

VOLUME OF GROUNDWATER PURGED

SAMPLING DEVICE

SAMPLE COLOR ODOR/SEDIMENT

### CHEMICAL DATA

| VOLUME PURGED | TEMPERATURE | PH | CONDUCTIVITY |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

### SAMPLES COLLECTED

| SAMPLE | # OF CONTAINERS | SIZE AND TYPE OF CONTAINER | ANALYSIS | PRESERVED |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME CHAN / YEE

JOB NUMBER 3412 DATE OF SAMPLING 04.28.05

WELL ID. MW-3 SAMPLER DA

TOTAL DEPTH OF WELL 29.2 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 14.94

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 14.26

NUMBER OF GALLONS PER WELL CASING VOLUME 2.28

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 6.8

EQUIPMENT USED TO PURGE WELL DISP. BAILER

TIME EVACUATION STARTED 0830 TIME EVACUATION COMPLETED 0850

TIME SAMPLES WERE COLLECTED 0855

DID WELL GO DRY NO AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 7

SAMPLING DEVICE DISP. BAILER

SAMPLE COLOR CLEAR ODOR/SEDIMENT TRACE HC ODOR

## CHEMICAL DATA

| VOLUME PURGED | TEMPERATURE | PH | CONDUCTIVITY |
|---|---|---|---|
| 1 | 66.9 | 6.82 | 580 |
| 2 | 67.9 | 6.78 | 572 |
| 3 | 68.3 | 6.80 | 574 |

## SAMPLES COLLECTED

| SAMPLE | # OF CONTAINERS | SIZE AND TYPE OF CONTAINER | ANALYSIS | PRESERVED |
|---|---|---|---|---|
| MW-3 | 3 | 40 ml VOA | 8260 | ✓ |
| | | | | |
| | | | | |

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME CHAN / YEE

JOB NUMBER 3412 DATE OF SAMPLING 04-28-05

WELL ID. MW-4 SAMPLER DA

TOTAL DEPTH OF WELL 29.7 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 15.18

PRODUCT THICKNESS Ø

DEPTH OF WELL CASING IN WATER 14.52

NUMBER OF GALLONS PER WELL CASING VOLUME 2.32

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 7

EQUIPMENT USED TO PURGE WELL DISP. BAILER

TIME EVACUATION STARTED 0810 TIME EVACUATION COMPLETED 0820

TIME SAMPLES WERE COLLECTED 0825

DID WELL GO DRY NO AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 7

SAMPLING DEVICE DISP. BAILER

SAMPLE COLOR CLEAR ODOR/SEDIMENT SLIGHT HC

### CHEMICAL DATA

| VOLUME PURGED | TEMPERATURE | PH | CONDUCTIVITY |
|---|---|---|---|
| 1 | 68.6 | 7.01 | 520 |
| 2 | 68.4 | 7.09 | 538 |
| 3 | 68.9 | 7.04 | 529 |

### SAMPLES COLLECTED

| SAMPLE | # OF CONTAINERS | SIZE AND TYPE OF CONTAINER | ANALYSIS | PRESERVED |
|---|---|---|---|---|
| MW-4 | 3 | 40 ml VOA | 8260 | ✓ |
| | | | | |
| | | | | |

# AQUA SCIENCE ENGINEERS

## WELL SAMPLING FIELD LOG

PROJECT NAME CHAN / YEE

JOB NUMBER 3412 DATE OF SAMPLING 04-28-05

WELL ID. MW-5 SAMPLER DA

TOTAL DEPTH OF WELL 28.5 WELL DIAMETER 2

DEPTH TO WATER PRIOR TO PURGING 15.41

PRODUCT THICKNESS 0

DEPTH OF WELL CASING IN WATER 13.09

NUMBER OF GALLONS PER WELL CASING VOLUME 2.09

NUMBER OF WELL CASING VOLUMES TO BE REMOVED 3

REQUIRED VOLUME OF GROUNDWATER TO BE PURGED PRIOR TO SAMPLING 6.28

EQUIPMENT USED TO PURGE WELL DISP BAILER

TIME EVACUATION STARTED 0730 TIME EVACUATION COMPLETED 0750

TIME SAMPLES WERE COLLECTED 0755

DID WELL GO DRY NO AFTER HOW MANY GALLONS —

VOLUME OF GROUNDWATER PURGED 6.5

SAMPLING DEVICE DISP. BAILER

SAMPLE COLOR CLEAR ODOR/SEDIMENT STRONG HC

### CHEMICAL DATA

| VOLUME PURGED | TEMPERATURE | PH | CONDUCTIVITY |
|---|---|---|---|
| 1 | 67.4 | 6.85 | 1050 |
| 2 | 67.8 | 6.90 | 1042 |
| 3 | 67.8 | 6.92 | 1040 |

### SAMPLES COLLECTED

| SAMPLE | # OF CONTAINERS | SIZE AND TYPE OF CONTAINER | ANALYSIS | PRESERVED |
|---|---|---|---|---|
| MW-5 | 3 | 40ml VOA | 8260 | ✓ |
| | | | | |
| | | | | |

# APPENDIX B

Certified Analytical Report
and
Chain of Custody Documentation

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

David Allen
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 4 Water Samples
Project Name : YEE
Project Number : 3412

Dear Mr. Allen,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

Project Name : **YEE**
Project Number : **3412**

Sample : **MW-1** Matrix : Water Lab Number : 43508-01
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **2000** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **160** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **34000** | 1000 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **< 10000** | 10000 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.3 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 114 | | % Recovery | EPA 8260B | 5/3/2005 |

Sample : **MW-3** Matrix : Water Lab Number : 43508-02
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **1300** | 20 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **< 200** | 200 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.8 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 114 | | % Recovery | EPA 8260B | 5/3/2005 |

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

Project Name : **YEE**
Project Number : **3412**

Sample : **MW-4** Matrix : Water Lab Number : 43508-03
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **510** | 20 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **510** | 200 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.1 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 113 | | % Recovery | EPA 8260B | 5/3/2005 |

Sample : **MW-5** Matrix : Water Lab Number : 43508-04
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **3300** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **2300** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **530** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **2100** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **4100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **32000** | 1000 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 99.0 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 113 | | % Recovery | EPA 8260B | 5/3/2005 |

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

| | | | | | |
|---|---|---|---|---|---|
| Toluene | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Ethylbenzene | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Total Xylenes | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Methyl-t-butyl ether (MTBE) | < 5.0 | 5.0 | ug/L | EPA 8260B | 5/2/2005 |
| TPH as Gasoline | < 50 | 50 | ug/L | EPA 8260B | 5/2/2005 |
| Toluene - d8 (Surr) | 98.6 | | % | EPA 8260B | 5/2/2005 |
| 4-Bromofluorobenzene (Surr) | 117 | | % | EPA 8260B | 5/2/2005 |

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

David Allen
Aqua Science Engineers, Inc.
208 West El Pintado Rd.
Danville, CA 94526

Subject : 4 Water Samples
Project Name : YEE
Project Number : 3412

Dear Mr. Allen,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

Project Name : **YEE**
Project Number : **3412**

Sample : **MW-1** Matrix : Water Lab Number : 43508-01
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **2000** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **160** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **34000** | 1000 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **< 10000** | 10000 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.3 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 114 | | % Recovery | EPA 8260B | 5/3/2005 |

Sample : **MW-3** Matrix : Water Lab Number : 43508-02
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **< 2.0** | 2.0 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **1300** | 20 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **< 200** | 200 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.8 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 114 | | % Recovery | EPA 8260B | 5/3/2005 |

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF ANALYTICAL LLC

Report Number : 43508
Date : 5/3/2005

Project Name : **YEE**
Project Number : **3412**

Sample : **MW-4** Matrix : Water Lab Number : 43508-03
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **< 1.5** | 1.5 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **510** | 20 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **510** | 200 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 98.1 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 113 | | % Recovery | EPA 8260B | 5/3/2005 |

Sample : **MW-5** Matrix : Water Lab Number : 43508-04
Sample Date :4/28/2005

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| **Benzene** | **3300** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Toluene** | **2300** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Ethylbenzene** | **530** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Total Xylenes** | **2100** | 10 | ug/L | EPA 8260B | 5/3/2005 |
| **Methyl-t-butyl ether (MTBE)** | **4100** | 100 | ug/L | EPA 8260B | 5/3/2005 |
| **TPH as Gasoline** | **32000** | 1000 | ug/L | EPA 8260B | 5/3/2005 |
| Toluene - d8 (Surr) | 99.0 | | % Recovery | EPA 8260B | 5/3/2005 |
| 4-Bromofluorobenzene (Surr) | 113 | | % Recovery | EPA 8260B | 5/3/2005 |

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43508

Date : 5/3/2005

**QC Report : Method Blank Data**

Project Name : **YEE**

Project Number : **3412**

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|
| Benzene | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Toluene | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Ethylbenzene | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Total Xylenes | < 0.50 | 0.50 | ug/L | EPA 8260B | 5/2/2005 |
| Methyl-t-butyl ether (MTBE) | < 5.0 | 5.0 | ug/L | EPA 8260B | 5/2/2005 |
| TPH as Gasoline | < 50 | 50 | ug/L | EPA 8260B | 5/2/2005 |
| Toluene - d8 (Surr) | 98.6 | | % | EPA 8260B | 5/2/2005 |
| 4-Bromofluorobenzene (Surr) | 117 | | % | EPA 8260B | 5/2/2005 |

| Parameter | Measured Value | Method Reporting Limit | Units | Analysis Method | Date Analyzed |
|---|---|---|---|---|---|

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Report Number : 43508

Date : 5/3/2005

Project Name : **YEE**

Project Number : **3412**

| Parameter | Spiked Sample | Sample Value | Spike Level | Spike Dup. Level | Spiked Sample Value | Duplicate Spiked Sample Value | Units | Analysis Method | Date Analyzed | Spiked Sample Percent Recov. | Duplicate Spiked Sample Percent Recov. | Relative Percent Diff. | Spiked Sample Percent Recov. Limit | Relative Percent Diff. Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 43510-05 | <0.50 | 40.0 | 40.0 | 36.7 | 36.1 | ug/L | EPA 8260B | 5/2/05 | 91.7 | 90.2 | 1.62 | 70-130 | 25 |
| Toluene | 43510-05 | <0.50 | 40.0 | 40.0 | 38.5 | 37.8 | ug/L | EPA 8260B | 5/2/05 | 96.3 | 94.5 | 1.86 | 70-130 | 25 |
| Tert-Butanol | 43510-05 | <5.0 | 200 | 200 | 194 | 198 | ug/L | EPA 8260B | 5/2/05 | 96.8 | 99.3 | 2.57 | 70-130 | 25 |
| Methyl-t-Butyl Ether | 43510-05 | <0.50 | 40.0 | 40.0 | 35.6 | 34.8 | ug/L | EPA 8260B | 5/2/05 | 89.0 | 87.1 | 2.19 | 70-130 | 25 |

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

**QC Report : Laboratory Control Sample (LCS)**

Report Number : 43508
Date : 5/3/2005

Project Name : **YEE**
Project Number : **3412**

| Parameter | Spike Level | Units | Analysis Method | Date Analyzed | LCS Percent Recov. | LCS Percent Recov. Limit |
|---|---|---|---|---|---|---|
| Benzene | 40.0 | ug/L | EPA 8260B | 5/2/05 | 87.8 | 70-130 |
| Toluene | 40.0 | ug/L | EPA 8260B | 5/2/05 | 92.9 | 70-130 |
| Tert-Butanol | 200 | ug/L | EPA 8260B | 5/2/05 | 95.7 | 70-130 |
| Methyl-t-Butyl Ether | 40.0 | ug/L | EPA 8260B | 5/2/05 | 89.8 | 70-130 |

KIFF ANALYTICAL, LLC
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joel Kiff

43508

Aqua Science Engineers, Inc.
208 W. El Pintado Road
Danville, CA 94526
(925) 820-9391
FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) D. Allen

PROJECT NAME YEE JOB NO. 3412

ADDRESS OAKLAND, CA

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

| SAMPLE ID. | DATE | TIME | MATRIX | NO. OF SAMPLES | TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020) | TPH-DIESEL (EPA 3510/8015) | TPH-DIESEL & MOTOR OIL (EPA 3510/8015) | PURGEABLE HALOCARBONS (EPA 601/8010) | VOLATILE ORGANICS (EPA 624/8240/8260) | SEMI-VOLATILE ORGANICS (EPA 625/8270) | OIL & GREASE (EPA 5520) ____ | LUFT METALS (5) (EPA 6010+7000) | CAM 17 METALS (EPA 6010+7000) | PCBs & PESTICIDES (EPA 608/8080) | ORGANOPHOSPHORUS PESTICIDES (EPA 8140 EPA 608/8080) | FUEL OXYGENATES (EPA 8260) | MTBE ONLY | TPH-G/BTEX/5 OXY'S (EPA 8260) | TPH-G/BTEX/ 5 OXY'S & HALOGENATED VOCS (EPA 8260B) | EDF | HOLD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 4.28.05 | 0955 | water | 3 | X | | | | | | | | | | | | | | | X | | 01 |
| MW-3 | | 0855 | | | X | | | | | | | | | | | | | | | X | | 02 |
| MW-4 | | 0825 | | | X | | | | | | | | | | | | | | | X | | 03 |
| MW-5 | | 0755 | | | X | | | | | | | | | | | | | | | X | | 04 |
| | | | | | | | | | | | | | | | | | | | | | | |
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RELINQUISHED BY: D. Allen 0945 (signature) (time)
D. ALLEN 04.29.05 (printed name) (date)
Company- ASE, INC.

RECEIVED BY: (signature) (time)
(printed name) (date)
Company-

RELINQUISHED BY: (signature) (time)
(printed name) (date)
Company-

RECEIVED BY LABORATORY: Michelle Spencer 0945 (signature) (time)
Michelle Spencer 04.29.05 (printed name) (date)
Company- Kiff Analytical

COMMENTS:

TURN AROUND TIME
STANDARD 24Hr 48Hr 72Hr
OTHER: