

Xtra OIL COMPANY

2307 PACIFIC AVENUE
ALAMEDA, CA 94501
(510) 865-9503 FAX (510) 865-1889

00 MAR 10 PM 0:13

*low PNA's detected in
Mw-2 and mw-1 and Mw-4*

March 9, 1998

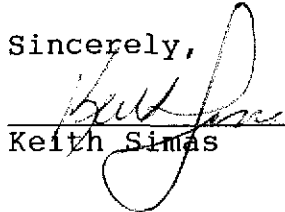
Ms. Eva Chu
Hazardous Materials Program
Department of Environmental Health
1131 Harbor Bay Pkwy. 2nd floor
Alameda, Ca. 94502-6577

Regarding: 1701 Park St.
STID 3836

Dear Ms. Chu,

Please find enclosed the quarterly report for the above location.
If you have any questions feel free to contact us.

Sincerely,



Keith Simas

GROUNDWATER MONITORING AND SAMPLING REPORT

**Xtra Oil Company Service Station (dba Shell)
1701 Park Street
Alameda, California**

Project No. 10-210-08-002

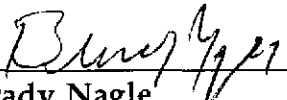
Prepared for:

**Xtra Oil Company
2307 Pacific Avenue
Alameda, California**


Prepared by:

**Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California**

February 11, 1998



**Brady Nagle
Project Manager**



**Al Sevilla, P.E.
Principal**



GROUNDWATER MONITORING AND SAMPLING REPORT

Xtra Oil Company Service Station (dba Shell)
1701 Park Street
Alameda, California

Project No. 10-210-08-001

February 11, 1998

INTRODUCTION

This report presents the results and findings of the December 15, 1997 groundwater monitoring and sampling conducted by Alisto Engineering Group at the Xtra Oil Company service station (dba Shell), 1701 Park Street, Alameda, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes while recording field readings of pH, temperature and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in each well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous events are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of laboratory analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.



FINDINGS

The findings of the December 15, 1997 groundwater monitoring and sampling event are summarized as follows:

- Approximately 0.03 foot of free product was observed in Monitoring Well MW-2. Free product or sheen was not observed in Monitoring Wells MW-1, MW-3 or MW-4.
- Groundwater elevation data indicate a gradient of approximately 0.03 foot per foot in an easterly to north easterly direction across the site.
- Analysis of the groundwater samples detected up to 45000 micrograms per liter (ug/l) total petroleum hydrocarbons as gasoline, 11000 ug/l benzene and 14,000 ug/l methyl tertbutyl ether in the sample collected from Monitoring Well MW-1; and up to 68,000 ug/l total petroleum hydrocarbons as diesel in the sample collected from MW-2.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

| WELL ID | DATE OF MONITORING/ SAMPLING | CASING ELEVATION (a) (Feet) | DEPTH TO WATER (Feet) | PRODUCT THICKNESS (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/l) | TPH-D (ug/l) | B (ug/l) | T (ug/l) | E (ug/l) | X (ug/l) | MTBE (ug/l) | SVOCs (ug/l) | DO (ppm) | LAB |
|----------|---------------------------------|--------------------------------|--------------------------|-----------------------------|-------------------------------------|-----------------|-----------------|-------------|-------------|-------------|-------------|----------------|-----------------|-------------|---------|
| MW-1 | 11/04/94 | 19.49 | 8.64 | --- | 10.85 | 60000 | 6400 | 13000 | 4900 | 1300 | 5500 | --- | --- | --- | MCC |
| QC-1 (c) | 11/04/94 | --- | --- | --- | --- | 54000 | --- | 12000 | 4500 | 1200 | 5200 | --- | --- | --- | MCC |
| MW-1 | 01/11/95 | 19.49 | 6.10 | --- | 13.39 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-1 | 02/24/95 | 19.49 | 6.57 | --- | 12.92 | 56000 | 4400 | 13000 | 7000 | 1400 | 5100 | --- | --- | --- | MCC |
| QC-1 (c) | 02/24/95 | --- | --- | --- | --- | 43000 | --- | 8900 | 4600 | 970 | 3300 | --- | --- | --- | MCC |
| MW-1 | 05/25/95 | 19.49 | 6.54 | --- | 12.95 | 53000 | 4700 | 11000 | 5700 | 1200 | 4000 | --- | --- | 4.3 | MCC |
| QC-1 (c) | 05/25/95 | --- | --- | --- | --- | 48000 | --- | 11000 | 5300 | 1200 | 3800 | --- | --- | --- | MCC |
| MW-1 | 08/30/95 | 19.49 | 8.15 | --- | 11.34 | 14000 | 3700 | 5000 | 1100 | 3900 | 103 | --- | --- | 2.8 | MCC |
| QC-1 (c) | 08/30/95 | --- | --- | --- | --- | 57000 | --- | 17000 | 7000 | 1500 | 5200 | --- | --- | --- | MCC |
| MW-1 | 11/16/95 | 19.49 | 8.79 | --- | 10.70 | 100000 | 5900 | 22000 | 17000 | 2100 | 8500 | --- | --- | --- | MCC |
| QC-1 (c) | 11/16/95 | --- | --- | --- | --- | 95000 | --- | 20000 | 15000 | 1800 | 7800 | --- | --- | --- | MCC |
| MW-1 | 03/20/96 | 19.49 | 6.45 | --- | 13.04 | 46000 | 3300 | 10000 | 6200 | 1100 | 3200 | --- | --- | --- | MCC |
| QC-1 (c) | 03/20/96 | --- | --- | --- | --- | 42000 | --- | 9800 | 5800 | 970 | 3000 | --- | --- | --- | MCC |
| MW-1 | 06/13/96 | 19.49 | 7.14 | --- | 12.35 | 44000 | 5400 | 9500 | 5500 | 1100 | 4000 | 19000 | --- | --- | MCC |
| QC-1 (c) | 06/13/96 | --- | --- | --- | --- | 48000 | --- | 9300 | 5600 | 1000 | 3800 | 17000 | --- | --- | MCC |
| MW-1 | 09/23/96 | 19.49 | 7.56 | --- | 11.93 | 76000 | 14000 | 14000 | 11000 | 1600 | 7100 | 17000 | --- | 6.1 | MCC |
| MW-1 | 12/19/96 | 19.49 | 7.08 | --- | 12.41 | 46000 | --- | 12000 | 5500 | 1200 | 4100 | --- | --- | --- | MCC |
| MW-1 | 05/09/97 | 19.60 (d) | 7.39 | --- | 12.21 | 80000 | 7500 | 14000 | 12000 | 1700 | 7600 | 14000 | 280 (e) | 2.7 | MCC/CHR |
| MW-1 | 09/11/97 | 19.60 | 7.50 | --- | 12.10 | 100000 | 7700 | 19000 | 19000 | 2400 | 11000 | ND<2100 | --- | 7.2 | MCC |
| MW-1 | 12/15/97 | 19.49 | 7.61 | --- | 11.88 | 45000 | 3500 | 11000 | 5300 | 1500 | 5200 | 13000 | --- | 6.8 | MCC |
| QC-1 (c) | 12/15/97 | --- | --- | --- | --- | 45000 | --- | 11000 | 5400 | 1400 | 5100 | 14000 | --- | --- | MCC |
| MW-2 | 11/04/94 | 20.29 | 9.12 | 0.16 | 11.29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 01/11/95 | 20.29 | 6.75 | --- | 13.54 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 02/24/95 | 20.29 | 7.11 | 0.18 | 13.32 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 05/25/95 | 20.29 | 7.01 | 0.01 | 13.29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 08/30/95 | 20.29 | 8.58 | 0.12 | 11.80 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 11/16/95 | 20.29 | 9.07 | 0.01 | 11.23 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 03/20/96 | 20.29 | 6.79 | 0.01 | 13.51 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 06/13/96 | 20.29 | 7.41 | 0.01 | 12.89 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-2 | 09/23/96 | 20.29 | 7.83 | 0.01 | 12.47 | 30000 | 19000 | 4600 | 180 | 1500 | 4100 | 2600 | --- | 5.5 | MCC |
| QC-1 (c) | 09/23/96 | --- | --- | --- | --- | 33000 | --- | 4700 | 170 | 1600 | 3900 | 2400 | --- | --- | MCC |
| MW-2 | 12/19/96 | 20.29 | 7.37 | 0.01 | 12.93 | 29000 | --- | 1800 | 240 | 1400 | 5400 | --- | (f) | --- | MCC |
| QC-1 (c) | 12/19/96 | --- | --- | --- | --- | 29000 | --- | 580 | 210 | 1300 | 5100 | --- | --- | --- | MCC |
| MW-2 | 05/09/97 | 20.31 (d) | 6.11 | 0.21 | 14.36 | 34000 | 6700000 | 4600 | 260 | 1500 | 4300 | 1600 | --- | 3.7 | MCC |
| MW-2 | 09/11/97 | 20.31 | 7.70 | 0.03 | 12.63 | 44000 | 1200000 | 3900 | 250 | 2400 | 7400 | ND<610 | --- | 6.5 | MCC |
| QC-1 (c) | 09/11/97 | --- | --- | --- | --- | 47000 | 1100000 | 4000 | 420 | 2700 | 8300 | 920 | --- | --- | MCC |
| MW-2 | 12/15/97 | 20.31 | 7.87 | 0.03 | 12.46 | 32000 | 68000 | 4600 | 130 | 2200 | 5400 | ND<470 | --- | 6.0 | MCC |

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

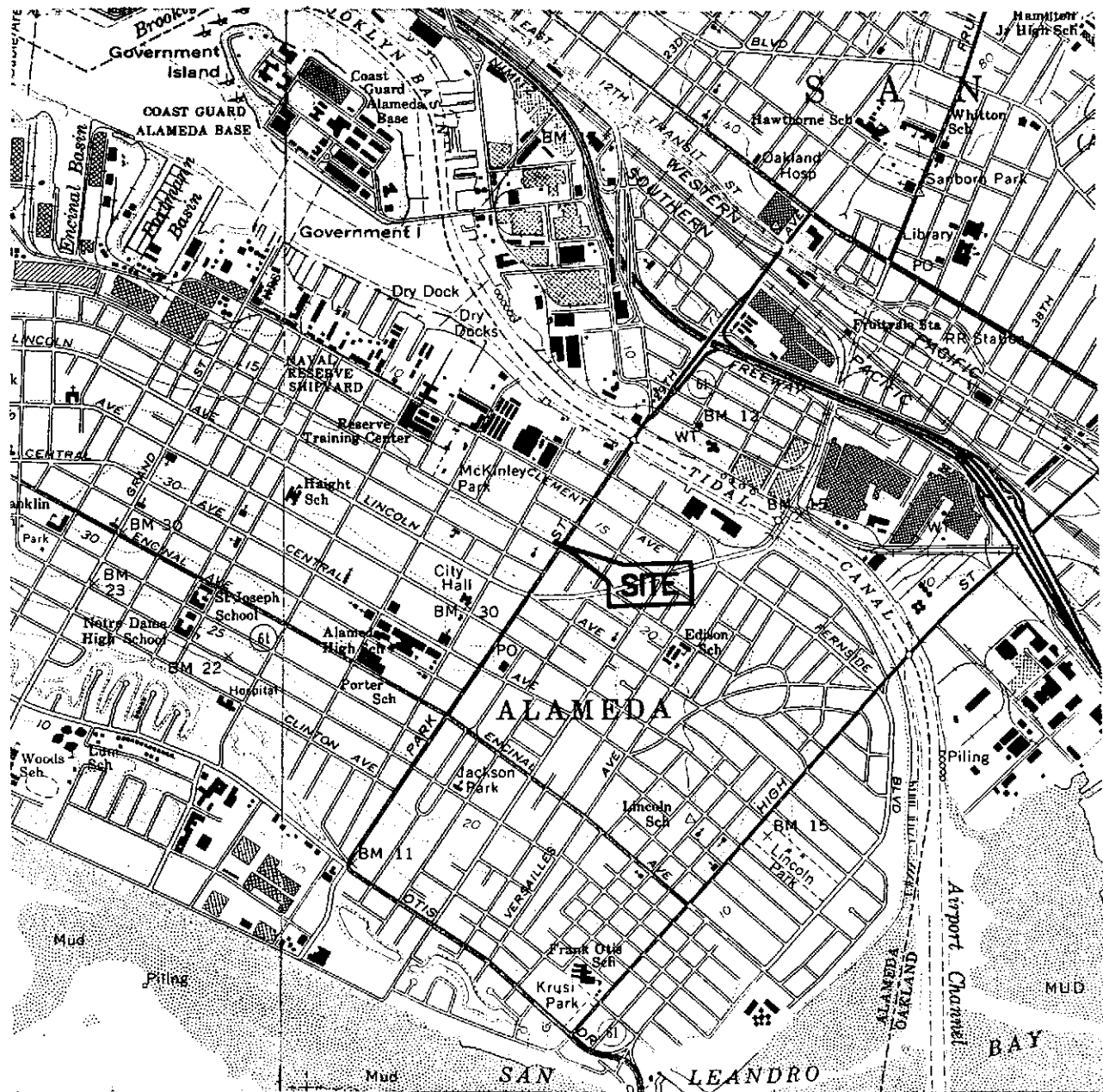
| WELL ID | DATE OF MONITORING/ SAMPLING | CASING ELEVATION (a) (Feet) | DEPTH TO WATER (Feet) | PRODUCT THICKNESS (Feet) | GROUNDWATER ELEVATION (b) (Feet) | TPH-G (ug/l) | TPH-D (ug/l) | B (ug/l) | T (ug/l) | E (ug/l) | X (ug/l) | MTBE (ug/l) | SVOCs (ug/l) | DO (ppm) | LAB |
|----------|------------------------------|-----------------------------|-----------------------|--------------------------|----------------------------------|--------------|--------------|----------|----------|----------|----------|-------------|--------------|----------|---------|
| MW-3 | 11/04/94 | 20.58 | 8.92 | --- | 11.66 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| MW-3 | 01/11/95 | 20.58 | 5.67 | --- | 14.91 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MW-3 | 02/24/95 | 20.58 | 6.11 | --- | 14.47 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| MW-3 | 05/25/95 | 20.58 | 6.24 | --- | 14.34 | 91 | ND<50 | 28 | 12 | 2.1 | 6.5 | --- | --- | --- | MCC |
| MW-3 | 08/30/95 | 20.58 | 8.27 | --- | 12.31 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | 4.6 | MCC |
| MW-3 | 11/16/95 | 20.58 | 8.82 | --- | 11.76 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| MW-3 | 03/20/96 | 20.58 | 5.44 | --- | 15.14 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| MW-3 | 06/13/96 | 20.58 | 6.17 | --- | 14.41 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | --- | --- | MCC |
| MW-3 | 09/23/96 | 20.58 | 6.57 | --- | 14.01 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | --- | 4.9 | MCC |
| MW-3 | 12/19/96 | 20.58 | 6.59 | --- | 13.99 | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| MW-3 | 05/09/97 | 20.57 (d) | 7.00 | --- | 13.57 | ND<50 | 59 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | --- | 3.3 | MCC |
| MW-3 | 09/11/97 | 20.57 | 6.92 | --- | 13.65 | ND<50 | 82 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | --- | 7.0 | MCC |
| MW-3 | 12/15/97 | 20.57 | 7.03 | --- | 13.54 | ND<50 | ND<50 | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | ND<5.0 | --- | 6.5 | MCC |
| MW-4 | 05/09/97 | 19.69 | 7.17 | --- | 12.52 | 31000 | 15000 | 540 | 1300 | 1000 | 4500 | 1900 | 2.1 (e) | 3.1 | MCC/CHR |
| MW-4 | 09/11/97 | 19.69 | 7.71 | --- | 11.98 | 40000 | 6500 | 2000 | 3100 | 1700 | 7700 | 3400 | --- | 6.4 | MCC |
| MW-4 | 12/15/97 | 19.69 | 7.87 | --- | 11.82 | 14000 | 2100 | 910 | 690 | 390 | 2700 | 1700 | --- | 6.0 | MCC |
| QC-2 (g) | 11/04/94 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 02/24/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 05/25/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 08/30/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 11/16/95 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 03/20/96 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |
| QC-2 (g) | 06/13/96 | --- | --- | --- | --- | ND<50 | --- | ND<0.5 | ND<0.5 | ND<0.5 | ND<0.5 | --- | --- | --- | MCC |

ABBREVIATIONS:

| | |
|-------|--|
| TPH-G | Total petroleum hydrocarbons as gasoline using EPA Methods 5030/8015 |
| TPH-D | Total petroleum hydrocarbons as diesel using EPA Methods 3510/8015 |
| B | Benzene using EPA Methods 5030/8020 |
| T | Toluene using EPA Methods 5030/8020 |
| E | Ethylbenzene using EPA Methods 5030/8020 |
| X | Total xylenes using EPA Methods 5030/8020 |
| MTBE | Methyl tert butyl ether using EPA Methods 5030/8020 |
| SVOCs | Semivolatile organic compounds using EPA Method 8270 |
| DO | Dissolved oxygen |
| ug/l | Micrograms per liter |
| ppm | Parts per million |
| --- | Not analyzed/applicable/measurable |
| ND | Not detected above reported detection limit |
| MCC | McCampbell Analytical, Inc. |
| CHR | Chromalab, Inc. |

NOTES:

- (a) Top of casing surveyed relative to mean sea level.
- (b) Groundwater elevations expressed in feet above mean sea level, and adjusted assuming a specific gravity of 0.75 for free product.
- (c) Blind duplicate.
- (d) Top of casing elevation resurveyed on April 29, 1997.
- (e) SVOC analysis for polynuclear aromatics detected only naphthalene at the concentration stated.
- (f) SVOCs detected at concentrations of 420 ug/l naphthalene, 200 ug/l 2-methylnaphthalene, and 14 ug/l phenanthrene.
- (g) Travel blank.



SOURCE:
 USGS MAP, OAKLAND WEST AND EAST QUADRANGLE,
 7.5 MINUTE SERIES, 1959.
 PHOTOREVISED 1980.

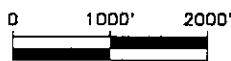
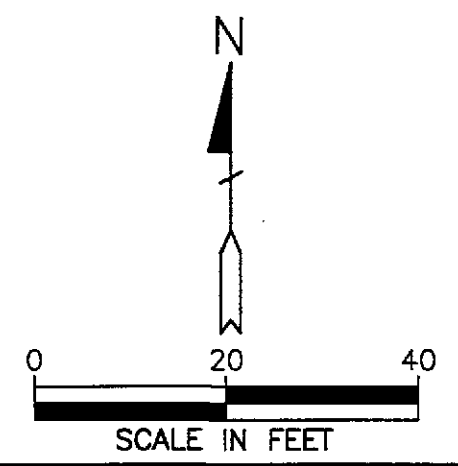
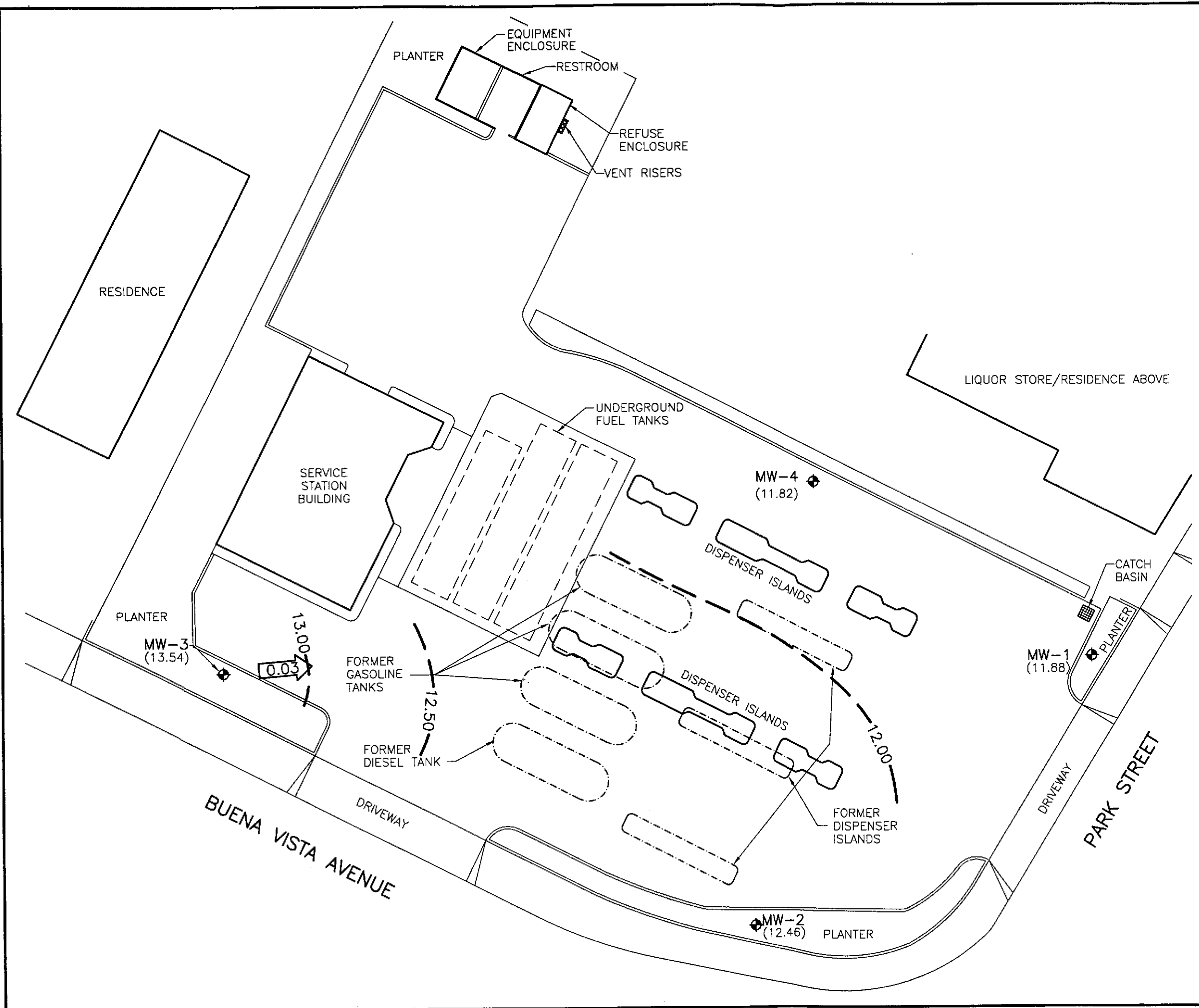


FIGURE 1
SITE VICINITY MAP

XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-210

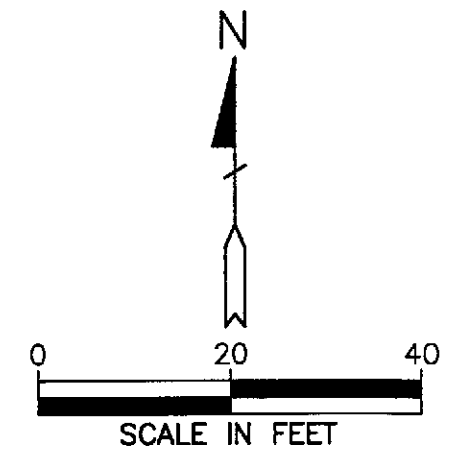
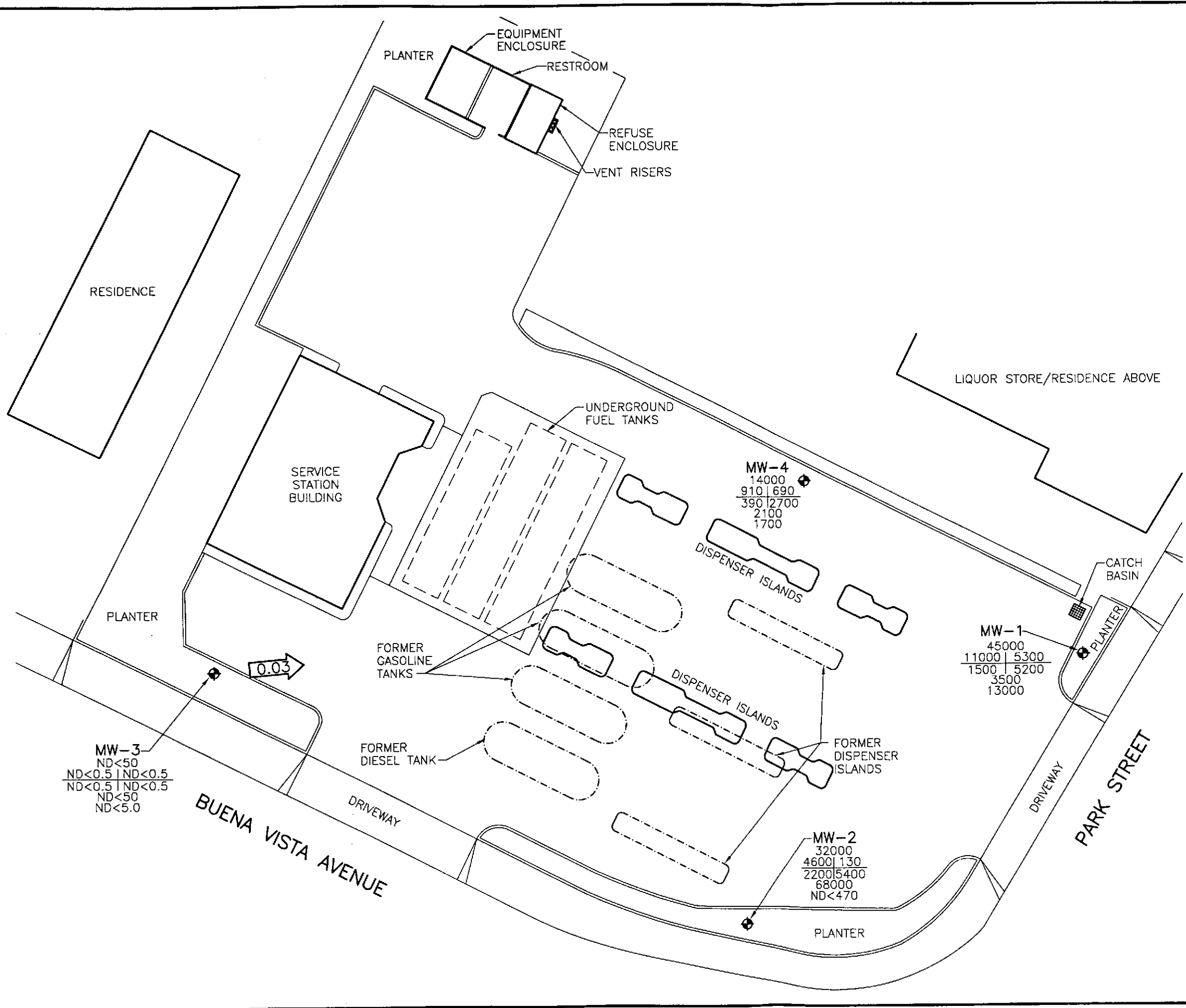


ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (13.54) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 13.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.50 FOOT)
 - ← 0.03 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 DECEMBER 15, 1997
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-210



LEGEND

- ⊕ GROUNDWATER MONITORING WELL
- TPH-G CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
- B I T
- E I X
- TPH-D
- MTBE
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- MTBE METHYL TERT BUTYL ETHER
- ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- ←0.03 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
DECEMBER 15, 1997
 XTRA OIL COMPANY SERVICE STATION
 1701 PARK STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-210

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-210-08-002

Address 1701 Park Street

Contract No. Pending

Station No. XTRA

Date: 12/15/97

Day: (M) T W T H F

City: Alameda

Sampler: LER

DEPTH TO GROUNDWATER SUMMARY

| WELL ID | SAMPLE ID | WELL DIAM | TOTAL DEPTH | DEPTH TO WATER | PRODUCT THICKNESS | TIME MONITORED | COMMENTS: |
|---------|-----------|-----------|-------------|----------------|-------------------|----------------|---------------------------|
| MW-1 | S-4 | 2" | 20.00 | 7.61 | ✓ | 1315 | QC-1 (S-5) from this well |
| MW-2 | S-3 | 2" | 20.00 | 7.87 | .01 | 1312 | |
| MW-3 | S-1 | 2" | 20.00 | 7.03 | ✓ | 1301 | |
| MW-4 | S-2 | 2" | 20.00 | 7.87 | ✓ | 1310 | |

FIELD INSTRUMENT CALIBRATION DATA

pH METER Lim 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 1327 WEATHER cloudy
 D.O. METER Lim ZERO d.o. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP cloudy 62
 CONDUCTIVITY METER Lim 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X
 LEAK DETECTOR: _____ ALARM MODE X NON ALARM MODE _____

| Well ID | Depth to Water | Diam | Cap/Lock | Product | Dept | Iridescence | Gal. | Time | Temp *F | pH | E.C. | D.O. |
|--|----------------|------|----------|---------|-------|-------------|---------------------|-----------------|-----------|------|-------|------|
| MW-3 | 7.03 | 2" | OK | ✓ | Y (N) | | 2 | 1344 | 61.3 | 7.21 | 647µs | 6.2 |
| Total Depth - Water Level= | | | | | | | x Well Vol. Factor= | x#vol. to Purge | PurgeVol. | | | |
| 20.00 - 7.03 = 12.97 | | | | | | | X .16 = 2.08 | X 3 = 6.24 | | | | |
| Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port | | | | | | | | | | | | |
| Comments: | | | | | | | | | | | | |
| TIME/SAMPLE ID <u>1300</u> | | | | | | | | | | | | |

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

| Well ID | Depth to Water | Diam | Cap/Lock | Product | Dept | Iridescence | Gal. | Time | Temp *F | pH | E.C. | D.O. |
|--|----------------|------|----------|---------|-------|-------------|---------------------|-----------------|-----------|------|-------|------|
| MW-4 | 7.87 | 2" | OK | ✓ | Y (N) | | 2 | 1407 | 60.7 | 7.41 | 767µs | 5.7 |
| Total Depth - Water Level= | | | | | | | x Well Vol. Factor= | x#vol. to Purge | PurgeVol. | | | |
| 20.00 - 7.87 = 12.13 | | | | | | | X .16 = 1.94 | X 3 = 5.82 | | | | |
| Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port | | | | | | | | | | | | |
| Comments: | | | | | | | | | | | | |
| TIME/SAMPLE ID <u>1320</u> | | | | | | | | | | | | |

- EPA 601 _____
- TPH-G/BTEX _____
- TPH Diesel _____
- TOG 5520 _____

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-210-08-002

Address 1701 Park Street

Contract No. Pending

Station No. XTRA

Date: 12/15/97

Day: MTWTHF

City: Alameda

Sampler: CR

| Well ID | Depth to Water | Diam | Cap/Lock | Product | Dept | Iridescence | Gal. | Time | Temp *F | pH | E.C. | D.O. | | |
|--|----------------|------|----------|---------|------|-------------|-------------------------------------|---------------------------------|---|------------------------------------|-------|-------|-------------------------------|---|
| Mw-2 | 7.87 | 2" | OK | ✓ | Y | (N) | 2 | 1433 | 61.4 | 7.40 | 962µs | 6.0 | <input type="radio"/> EPA 601 | |
| Total Depth - Water Level= | | | | | | | x Well Vol. Factor= | x#vol. to Purge | PurgeVol. | | | | | <input checked="" type="radio"/> TPH-G/BTEX |
| 20.00-7.87=12.13 | | | | | | | x.16=1.94 | x3=5.72 | 4 | 62.2 | 7.30 | 992µs | | <input type="radio"/> TPH Diesel |
| Purge Method: <input checked="" type="checkbox"/> Surface Pump | | | | | | | <input type="checkbox"/> ODisp.Tube | <input type="checkbox"/> OWinch | <input type="checkbox"/> ODisp. Baller(s) | <input type="checkbox"/> OSys Port | | | | <input type="radio"/> TOG 5520 |
| Comments: | | | | | | | | | | | | | TIME/SAMPLE ID | |
| | | | | | | | | | | | | | 1443 | |
| Well ID | Depth to Water | Diam | Cap/Lock | Product | Dept | Iridescence | Gal. | Time | Temp *F | pH | E.C. | D.O. | | |
| Mw-1 | 7.61 | 2" | OK | ✓ | Y | (N) | 2 | 1451 | 60.2 | 7.29 | 897µs | 6.5 | <input type="radio"/> EPA 601 | |
| Total Depth - Water Level= | | | | | | | x Well Vol. Factor= | x#vol. to Purge | PurgeVol. | | | | | <input checked="" type="radio"/> TPH-G/BTEX |
| 20.00-7.61=12.39 | | | | | | | x.16=1.98 | x3=5.94 | 4 | 61.1 | 7.11 | 862µs | | <input type="radio"/> TPH Diesel |
| Purge Method: <input checked="" type="checkbox"/> Surface Pump | | | | | | | <input type="checkbox"/> ODisp.Tube | <input type="checkbox"/> OWinch | <input type="checkbox"/> ODisp. Baller(s) | <input type="checkbox"/> OSys Port | | | | <input type="radio"/> TOG 5520 |
| Comments: | | | | | | | | | | | | | TIME/SAMPLE ID | |
| | | | | | | | | | | | | | 1503 | |

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



McCAMPBELL ANALYTICAL INC.

110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 510-798-1620 Fax : 510-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

| | | |
|--|---|--------------------------|
| Alisto Engineering Group 1575 Treat Blvd, Ste 201 Walnut Creek, CA 94598 | Client Project ID: #10-210-081002; Xtra | Date Sampled: 12/15/97 |
| | | Date Received: 12/17/97 |
| | Client Contact: Brady Nagle | Date Extracted: 12/17/97 |
| | Client P.O: | Date Analyzed: 12/17/97 |

12/26/97

Dear Brady:

Enclosed are:

- 1). the results of 5 samples from your #10-210-081002; Xtra 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. McCampbell 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,

Edward Hamilton, Lab Director



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| Alisto Engineering Group 1575 Treat Blvd, Ste 201 Walnut Creek, CA 94598 | Client Project ID: #10-210-081002; Xtra | Date Sampled: 12/15/97 |
| | | Date Received: 12/17/97 |
| | Client Contact: Brady Nagle | Date Extracted: 12/17/97 |
| | Client P.O: | Date Analyzed: 12/17/97 |

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

| Lab ID | Client ID | Matrix | TPH(d) ⁺ | % Recovery Surrogate |
|--|-----------|--------|---------------------|----------------------|
| 84233 | S-1 | W | ND | 104 |
| 84234 | S-2 | W | 2100,d | 105 |
| 84235 | S-3 | W | 68,000,d,a,h | 102 |
| 84236 | S-4 | W | 3500,d,b | 105 |
| | | | | |
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| | | | | |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | W | | 50 ug/L | |
| | S | | 1.0 mg/kg | |

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe. soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

* cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 12/17/97

Matrix: Water

| Analyte | Concentration (mg/L) | | | Amount Spiked | % Recovery | | |
|---------------------|----------------------|------|------|---------------|------------|-------|-----|
| | Sample (#84089) | MS | MSD | | MS | MSD | RPD |
| TPH (gas) | 0.0 | 94.6 | 95.5 | 100.0 | 94.6 | 95.5 | 0.9 |
| Benzene | 0.0 | 8.9 | 9.3 | 10.0 | 89.0 | 93.0 | 4.4 |
| Toluene | 0.0 | 9.6 | 10.0 | 10.0 | 96.0 | 100.0 | 4.1 |
| Ethyl Benzene | 0.0 | 10.4 | 10.8 | 10.0 | 104.0 | 108.0 | 3.8 |
| Xylenes | 0.0 | 31.9 | 33.0 | 30.0 | 106.3 | 110.0 | 3.4 |
| TPH(diesel) | 0 | 142 | 140 | 150 | 95 | 93 | 1.6 |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

QC REPORT FOR HYDROCARBON ANALYSES

Date: 12/20/97

Matrix: Water

| Analyte | Concentration (mg/L) | | | Amount Spiked | % Recovery | | |
|---------------------|----------------------|------|------|---------------|------------|-------|-----|
| | Sample (#84212) | MS | MSD | | MS | MSD | RPD |
| TPH (gas) | 0.0 | 96.2 | 89.8 | 100.0 | 96.2 | 89.8 | 6.9 |
| Benzene | 0.0 | 9.4 | 8.9 | 10.0 | 94.0 | 89.0 | 5.5 |
| Toluene | 0.0 | 10.1 | 9.6 | 10.0 | 101.0 | 96.0 | 5.1 |
| Ethyl Benzene | 0.0 | 10.9 | 10.5 | 10.0 | 109.0 | 105.0 | 3.7 |
| Xylenes | 0.0 | 33.2 | 32.3 | 30.0 | 110.7 | 107.7 | 2.7 |
| TPH(diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

10138 Xaeg 191.doc

McCAMBELL ANALYTICAL INC.

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

Telephone: (510) 798-1620

Fax: (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Report To: Brady Nagle

Bill To: XTRA OIL CO.

Company: Alisto Engineering Group

1575 Treat Blvd., #201

Walnut Creek, CA 94598

Tele: (510) 295-1650

Fax: (510) 295-1823

Project #: 10-210-08/002

Project Name: XTRA

Project Location:

Sampler Signature: [Signature]

Analysis Request

Other

Comments

| SAMPLE ID | LOCATION | SAMPLING | | # Containers | Type Containers | MATRIX | | | | | METHOD PRESERVED | | | | | | | | |
|-----------|----------|----------|------|--------------|-----------------|--------|------|-----|--------|-------|------------------|-----|------------------|-------|--|--|--|--|--|
| | | Date | Time | | | Water | Soil | Air | Sludge | Other | Ice | HCl | HNO ₃ | Other | | | | | |
| S-1 | 0 | 12/15/97 | 1410 | 4 | HL | X | | | | | | | | | | | | | |
| S-2 | | | 1429 | ↓ | ↓ | ↓ | | | | | | | | | | | | | |
| S-3 | | | 1447 | ↓ | ↓ | ↓ | | | | | | | | | | | | | |
| S-4 | | | 1507 | ↓ | ↓ | ↓ | | | | | | | | | | | | | |
| S-5 | | | | 3 | ↓ | ↓ | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 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 | | | | | | | | | | | | | | | | | | | |

MTBE

84233
84234
84235
84236
84237

(+) + + + +

| | | | |
|--|-----------------------|-------------------|------------------------------------|
| Relinquished By: <u>[Signature]</u> | Date: <u>2/15/97</u> | Time: | Received By: <u>Tatiana Yelton</u> |
| Relinquished By: <u>Tatiana Yelton</u> | Date: <u>12/17/97</u> | Time: <u>1400</u> | Received By: <u>Deidi Ricca</u> |
| Relinquished By: | Date: | Time: | Received By: |

Remarks:

ICE/NO

GOOD CONDITION

HEAD SPACE ABSENT

PRESERVATION APPROPRIATE CONTAINERS

VOAS O&G METALS OTHER