STIP 1248



WESTERN GEO-ENGINEERS CALIF. CONTRACTOR #513857

CALIF, CONTRACTOR #513857 REGISTERED GEOLOGISTS 1386 EAST BEAMER STREET WOODDAND CA 95776-6003 (530) 668-5300: 15 FAX (530) 662-0273 wege@mother.com

March 24, 1999

Mr. John Rutherford Desert Petroleum P.O. Box 1601 Oxnard, California 93032 (805) 644-6784 FAX (805) 654-0720

Dear Mr. Rutherford:

The following report documents the First Quarter 1999 collection and certified laboratory analysis of groundwater samples from five monitoring wells and three water recovery wells associated with former Desert Petroleum Station #793.

1.0 SITE LOCATION AND DESCRIPTION

Former Desert Petroleum #793 is a new active service station, located on the northwest corner of the intersection of Park Boulevard and Hampel Street at 4035 Park Blvd., Oakland, California (Figure 1). The site is located in projected section 32; T1S; R3W; MDB&M at an approximate elevation of 210 feet above mean sea level (Figure 2).

2.0 LOCAL GEOLOGY

2.1 Geomorphology

The site is located on the western slope of the Berkeley Hills. The Berkeley Hills are a northwest-southeast trending range within the Coastal Range Province of California. Erosion of the Coastal Ranges has filled the valleys within and bordering the Coastal Range with sequences of gravels, silts, sands, and clays.

2.2 Stratigraphy

The native soil from surface to 13 feet below ground surface (BGS) consists of dark brown silty clay. The dark brown clay is underlain by light brown stiff clay that includes subrounded to rounded metavolcanic gravel. This clay extends to approximately 23 feet BGS at the northwest corner of the site. A fine to medium sand, clayey sand, and silty sand underlies the gravel and clay.

3.0 COLLECTION AND ANALYSIS OF GROUNDWATER SAMPLES, February 23, 1999

The first quarter sampling occurred on February 23,1999. Water samples were collected from monitor wells MW1, RS-2, RS-5, and RS-6 located on-site and RS-7 located in the center of Brighton Avenue to the northeast of the site (Figure 3). Water samples were also collected from the three on-site water recovery/injection wells (R1, R2 and R3), see Table 1. Appendix A contains QA/QC, details, methods, procedures, abbreviations, and acronyms used in sampling and analysis.

3.1 Depth to Water Measurements

Depth to water was measured at all monitor wells and the three on-site water recovery wells. The depth to water measurements were made using a product/water interface probe. Measurements are referenced to surveyed elevation at the top of casing at each well. Table 1 shows the elevation of groundwater with respect to mean sea level for all monitor wells through February 23, 1999.

3.2 Purging of Monitor Wells

David Pittman Well Purge (DPWP), using a truck mounted vacuum lift pump and one-inch diameter PVC tubing purged the monitor wells of three volumes of water. This is the same truck and operator as has been regularly used under the name of Lawrence Tank Testing. The specific volume of water removed from each well is recorded on the well sampling data sheets (Appendix B).

3.3 Collection and Certified Analysis of Groundwater Samples

After purging, the wells were allowed to recover to at least 80% of their original well volumes. A groundwater sample was then collected from each well with a disposable polyethylene bailer and decanted, with no headspace, into two 40 ml VOA vials containing 0.5 ml HCL acid as a preservative. North State Environmental Laboratories analyzed all water samples for concentrations of TPH-G, BTEX, and MTBE using EPA methods 5030/8015M/8020 (Appendix

C). Method 8020 presence of MTBE from the November 24, 1998 sampling was verified with EPA Method 8260; this first and only occurrence of MTBE is associated with the upgradient wells MW-1 and RS-2. Previous sample results and the February 23, 1999 sample results showed all wells below laboratory lower detection limits for MTBE using standard methods and the September 1998 samples from all wells were also analyzed for the Fuel Oxygenants using EPA Method 8260. All wells tested below laboratory lower detection limits.

| Fuel Oxygenants | Laboratory Lower Detection Limits |
|--|---|
| Ethanol Methyl-t-Butyl Ether (MTBE) Di Isopropyl Ether (DIPE) Tertiary Butyl Alcohol (TBA) Ethyl t Butyl Ether (ETBE) t-Amyl Methyl Ether (TAME) | 500 ug/L 1 ug/L 5 ug/L 5 ug/L 5 ug/L 1 ug/L |
| - | |

3.4 Disposition of Waste Water

The wastewater generated from the purging of the monitor wells during sampling was contained on-site in labeled 55 gallon DOT approved drums. The drummed wastewater will be removed from the site and transported to a recycling facility, by Evergreen Environmental Services.

4.0 RESULTS OF QUARTERLY GROUNDWATER MONITORING

4.1 Groundwater Gradient and Flow Direction

Figure 4 shows the groundwater elevation gradients and flow direction that were derived from the depth to water measurements of the on-site monitor wells on February 23, 1999. The groundwater elevation has risen between 4 and 10 feet in the monitor wells on the site. Groundwater elevation has elevated in the on-site recovery wells R1 and R2 between 1 and 8 feet. And groundwater elevation has remained the same in the off-site well RS7, since October 1995 (Table 1 and charts).

The current flow direction is west and northwest. The hydraulic gradient averages 0.04 feet/linear foot downgradient from the overexcavated area at the site (Figure 4). The current flow direction and hydraulic gradient are consistent with previous determinations by WEGE.

4.2 Results of Certified Analysis of Groundwater Samples

The results of the certified analyses of groundwater samples collected on February 23, 1999 are shown in Table 1 and Figure 3. Copies of the laboratory reports are included as Appendix C of this report.

TPH-G concentrations in water samples from the five monitor wells and three recovery wells ranged from a maximum of 83,000 ug/l at monitor wells RS-7 to below the laboratory lower detection limits (50 ug/l) in wells MW-1, RS-2, and R-3. Benzene concentrations ranged from a maximum of 6,500 ug/l in well RS-7 to less than laboratory detection limits (0.5 ug/l) in wells MW-1, RS-2 and R-3.

Analysis for Oxygenant Methyl-t-Butyl Ether (MTBE), was confirmed with EPA Method 8260 for samples MW1 and RS-2 at 11 and 15 ug/L respectively from the November 24, 1998 sampling. All other wells are and have been below laboratory lower detection limits. During the September 16, 1998 all Fuel Oxygenants; MTBE, Di-isopropyl Ether (DIPE), tertiary Butyl Alcohol (TBA), Ethyl-t-Butyl Ether (ETBE) and t-Amyl Methyl Ether (TAME) was confirmed with EPA Method 8260. These analytes were below laboratory lower detection limits. Figure 3 shows the areal distribution of the hydrocarbon plume in groundwater as determined from groundwater samples collected from the monitor wells on non certified results from the Soil Probe Surveys.

5.0 LIMITATIONS

This report is based upon the following:

- A. The observations of field personnel.
- B. The results of laboratory analyses performed by a state certified laboratory.
- C. Referenced documents.
- D. Our understanding of the regulations of the State of California, Alameda County and the City of Oakland.
- E. Changes in groundwater conditions can occur due to variations in rainfall, temperature, local and regional water use, and local construction practices.
- F. In addition, variations in the soil and groundwater conditions could exist beyond the points explored in this investigation.

State Certified Laboratory analytical results are included in this report. This laboratory follows EPA and State of California approved procedures; however, WEGE is not responsible for errors in these laboratory results. Western Geo-Engineers is a corporation under California Registered Geologist #3037 and/or Contractors License #513857. The services performed by Western Geo-Engineers have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California and the Oakland area. Our work and/or supervision of remediation and/or abatement operations, active or preliminary, at this site is in no way meant to imply that we are owners or operators of this site. Known or suspected contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty, expressed or implied, is made.

Sincerely,

George Converse Geologist

cc: Mr. Tom Peacock, Alameda County Health (510) 567-6774 Mr. Leroy Griffin, Oakland Fire Dept. Jack E. Napper

Ca. Reg. Geologist #3037

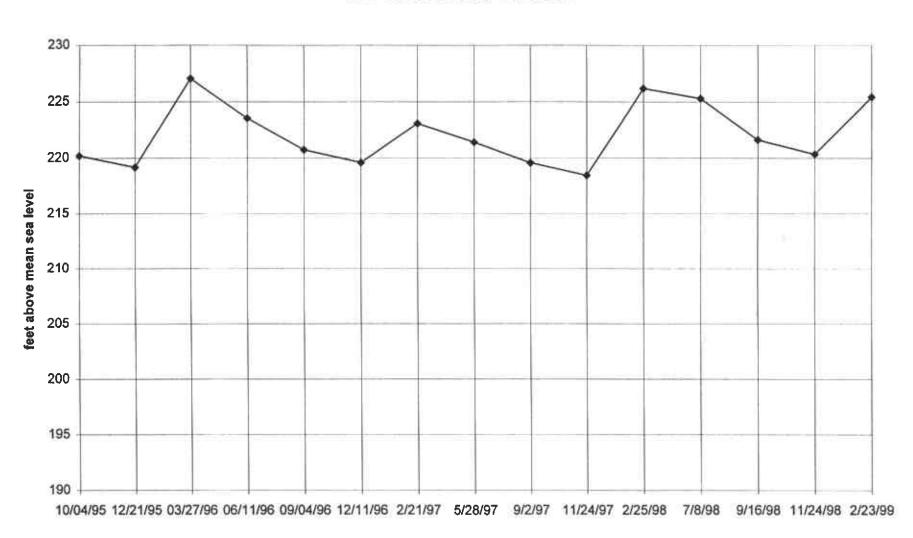
NAPPER

No. 3037

TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABACRATACRY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concent | rations i | n parts per | bil | lion [ug/L, | ppb]) | | | | |
|--------|----------|--------------|------------|--------------|--------|--------------|------------|---------|---------|---------|--------|
| | | (AMSL = Abov | re mean se | a level) | | | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | П | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| | SAMPLED | CASING | GROUND | WATER | | | | | BENZENE | | |
| | 1 1 | ELEVATION | WATER | ELEVATION | | | | | - 4 | - 1 | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| | | | | | | | | | | | |
| RS-1 | 12/14/89 | 240 | 24.25 | 215.75 | | 19000 | 2600 | 2700 | 200 | 1200 | |
| RS-1 | 12/90 | | | | | 15000 | 3500 | 330 | 170 | 760 | |
| RS-1 | 2/91 | | | | | 6900 | 910 | 200 | 39 | 540 | |
| RS-1 | 6/91 | | | | | 1600 | 56 | 180.000 | 12 | 26 | |
| RS-1 | 9/91 | | | | | 4100 | 730 | 7.6 | 5.1 | 24 | |
| RS-1 | 12/91 | | | | | 8300 | 950 | 160 | 71 | 190 | |
| RS-1 | 11/09/92 | 100.18 | 17.05 | 83.13 | | 1700 | 730 | 9.6 | 16 | 14 | |
| RS-1 | 04/07/94 | 100.18 | 13 | 87.18 | | 860 | 84 | 12 | 16 | 110 | |
| RS-1 | 06/19/94 | 228.15 | 13.37 | 214.78 | | 1400 | 150 | 12 | 52 | 87 | _ |
| RS-1 | 09/17/94 | 228.15 | 16.33 | 211.82 | | 310 | 30 | 1.8 | 2.8 | 3.9 | |
| RS-1 | 03/12/95 | 228.15 | 4.66 | 223.49 | | ND | ND | ND | ND | ND | |
| | | DESTROYED B | Y OVER-EXC | AVATION OF U | JST- | DISPENSER AR | EAS (8/14 | 1/95 | | | |
| | | REPLACED WI | TH MW-1 9/ | 5/95. | | | | | | | |
| MW-1 | 10/04/95 | 232.57 | 12.38 | 220.19 | Н | ND | ND | ND | ND | ND | |
| MW-1 | 12/21/95 | 232.57 | 13.40 | 219.17 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| MW-1 | 03/27/96 | 232.57 | 5.53 | 227.04 | \Box | < 50 | < 0.5 | < 0.5 | < 0.5 | < 2 | < 50 |
| MW-1 | 06/11/96 | | 9.02 | | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 2 | < 50 |
| MW-1 | 09/04/96 | 232.57 | 11.84 | 220.73 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 2 | < ! |
| MW-1 | 12/11/96 | 232.57 | 12.98 | 219.59 | | < 50 | < 0.5 | 0.9 | < 0.5 | < 1 | < 0.9 |
| MW-1 | 2/21/97 | 232.57 | 9.50 | 223.07 | | < 50 | < 0.5 | 0.9 | < 0.5 | < 1 | < 0.5 |
| MW-1 | 5/28/97 | 232.57 | 11.18 | 221.39 | | < 50 | 3 | 3 | < 0.5 | < I | < 0.5 |
| MW-1 | 9/2/97 | 232.57 | 13.00 | 219.57 | | < 50 | 5 | < 0.5 | < 0.5 | < 1 | < 0.5 |
| MW-1 | 11/24/97 | 232.57 | 14.12 | 218.45 | - | < 50 | 5 | < 0.5 | < 0.5 | < 1 | < 0.5 |
| MW - 1 | 2/25/98 | 232.57 | 6.41 | 226.16 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 0.5 |
| MW-1 | 7/8/98 | 232.57 | 7.28 | 225.29 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 1 |
| MW-1 | 9/16/98 | 232.57 | 10.96 | 221.61 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 11 |
| MW-1 | 11/24/98 | 232.57 | 12.24 | 220.33 | | 52 | 2.3 | 5.2 | < 0.5 | 5.4 | 11 |
| MW-1 | 2/23/99 | 232.57 | 7.14 | 225.43 | | < 50 | < 0.5 | 5 | < 0.5 | < 1 | < 0.9 |

MW-1 Groundwater Elevation



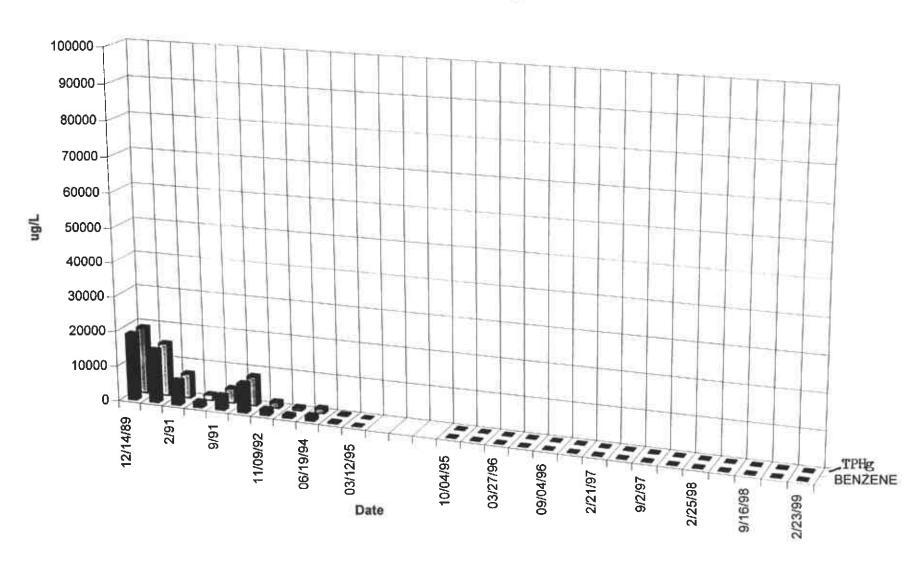
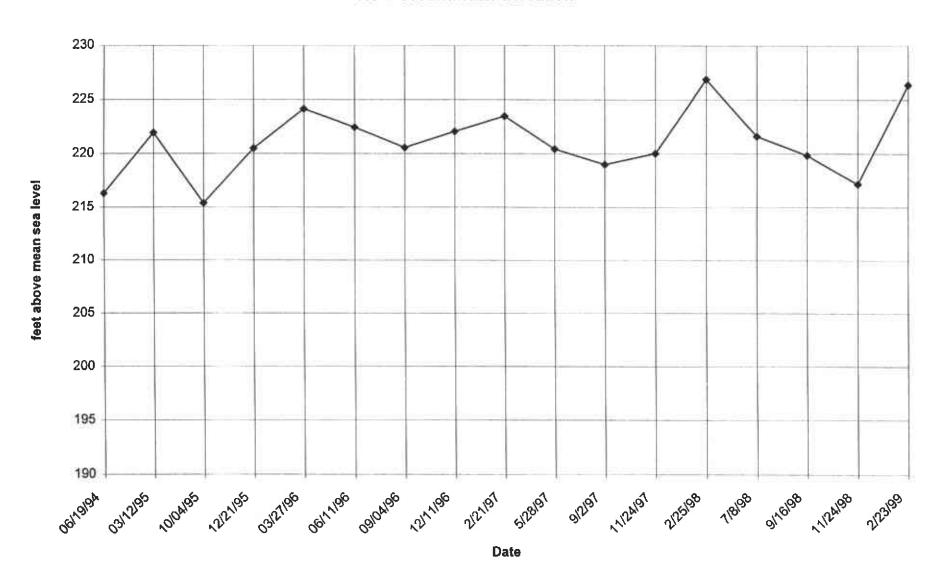


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DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concen | trations i | n parts per | bi | llion [ug/L, | ppb]) | | | | |
|-------|----------|-------------|------------|-------------|----|--------------|---------|---------|---------|---------|--------|
| l | | (AMSL = Abo | ve mean se | a level) | | | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| l | SAMPLED | CASING | GROUND | WATER | | | | | BENZENE | | |
| l | | ELEVATION | WATER | ELEVATION | l | | | | 1 | | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| | | | | | F | | | | | | |
| RS-2 | 06/19/94 | 227.19 | 10.89 | 216.3 | | 140 | 9.2 | 34 | 4.3 | 24.0 | |
| RS-2 | 03/12/95 | 227.19 | 5.26 | 221.93 | | ND | ND | ND | ND | ND | |
| RS-2 | 10/04/95 | 230.43 | 15.05 | 215.38 | | ND | ND | ND | ND | ND | |
| RS-2 | 12/21/95 | 230.43 | 9.95 | 220.48 | Г | < 50 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| RS-2 | 03/27/96 | 230.43 | 6.28 | 224.15 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 2 | < 50 |
| RS-2 | 06/11/96 | 230.43 | 6.00 | 222.43 | | < 50 | 1.2 | 2.8 | < 0.5 | < 2 | < 50 |
| RS-2 | 09/04/96 | 230.43 | 9.89 | 220.54 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 2 | < 5 |
| RS-2 | 12/11/96 | 230.43 | 8.38 | 222.05 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | 6 |
| RS-2 | 2/21/97 | 230.43 | 6.96 | 223.47 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 0.5* |
| R\$-2 | 5/28/97 | 230.43 | 10.02 | 220.41 | | < 50 | 3 | 3 | < 0.5 | < 1 | < 0.5* |
| RS-2 | 9/2/97 | 230.43 | 11.46 | 218.97 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 0.5* |
| RS-2 | 11/24/97 | 230.43 | 10.43 | 220 | | < 50 | < 0.5 | 1 | < 0.5 | 3 | < 0.5* |
| RS-2 | 2/25/98 | 230.43 | 3.57 | 226.86 | П | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 0.5* |
| RS-2 | 7/8/98 | 230.43 | 8.83 | 221.6 | 1 | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 1* |
| RS-2 | 9/16/98 | 230.43 | 10.60 | 219.83 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 1* |
| RS-2 | 11/24/98 | 230.43 | 13.27 | 217.16 | Г | 140 | 2.8 | 19 | 2.6 | 3.3 | 15* |
| RS-2 | 2/23/99 | 230.43 | 4.06 | 226.37 | | < 50 | < 0.5 | < 0.5 | < 0.5 | < 1 | < 0.5 |

RS-2 Groundwater Elevation



RS-2 TPHg

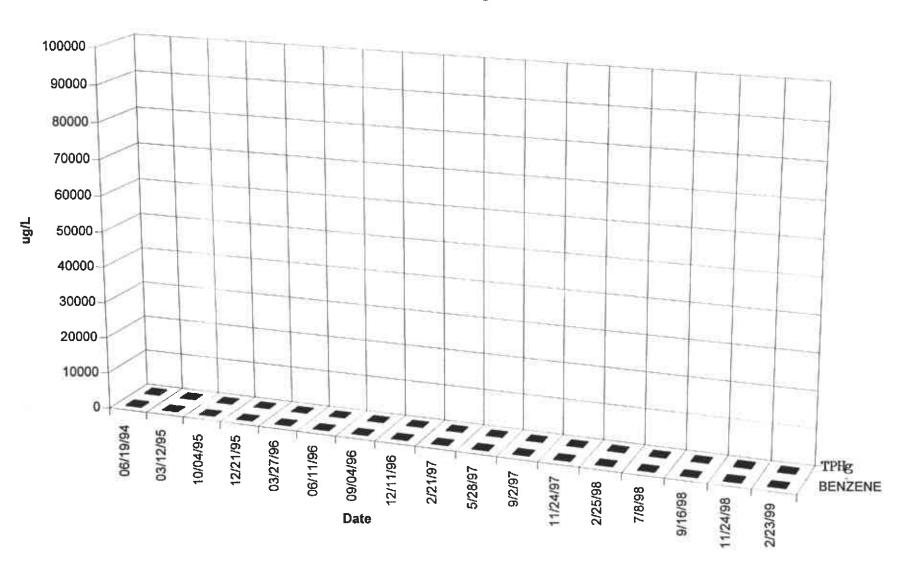
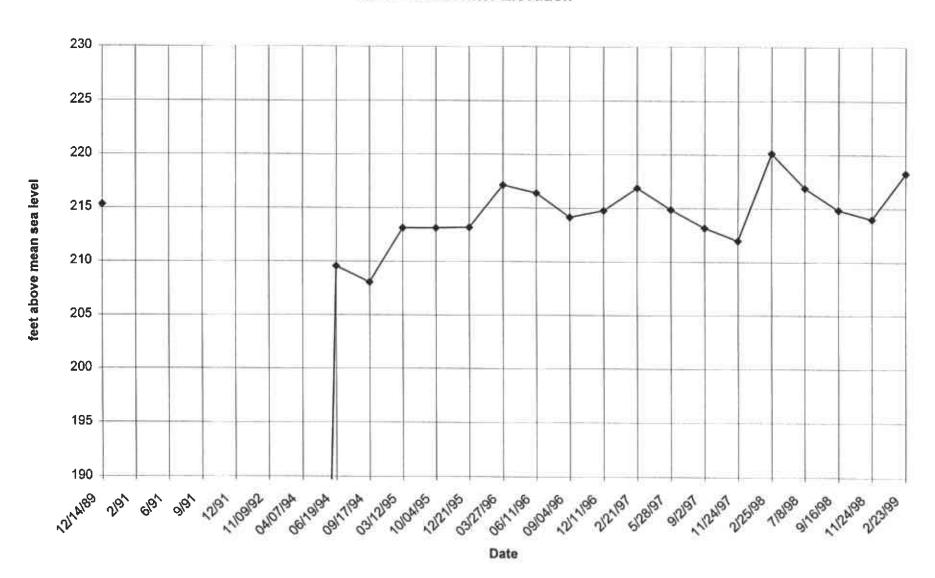


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4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concent (AMSL = Above | | n parts per b |)il | lion [ug/L, | ppb]) | | | | |
|-------|-----------------|-------------------------------|-----------------------------|------------------------------|-----------|-------------|---------|---------|-------------------|---------|--------|
| ID# | DATE SAMPLED | WELL CASING ELEVATION | DEPTH TO GROUND WATER | GROUND WATER ELEVATION | T | ТРН-G | BENZENE | TOLUENE | ETHYL- BENZENE | XYLENES | MTBE |
| | | (FEET AMSL) | | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| RS-5 | 12/14/89 | 241.26 | 25.97 | 215.29 | 7 | 57000 | 3100 | 4300 | 670 | 3400 | |
| RS-5 | 2/91 | | FLC | ATING PRODUC | π | | | | | | |
| RS-5 | 6/91 | | FLC | ATING PRODUC | T | - | | | | | |
| RS-5 | 9/91 | 7 | FLC | ATING PRODUC | T | | | | | | |
| RS-5 | 12/91 | | | ATING PRODUC | - | | | | | | |
| R\$-5 | 11/09/92 | 98.99 | 20.73 | 78.26 | \pm | 50000 | 650 | 4800 | 1100 | 15000 | |
| RS-5 | 04/07/94 | 98.99 | 18.16 | 80.83 | \forall | 27000 | 5000 | 8700 | 550 | 2800 | |
| RS-5 | 06/19/94 | 227.65 | 18.11 | 209.54 | \forall | 20000 | 2100 | 5300 | 470 | 2500 | |
| RS-5 | 09/17/94 | 227.65 | 19.63 | 208.02 | コ | 9300 | 230 | 340 | 110 | 700 | |
| RS-5 | 03/12/95 | 227.65 | 14.54 | 213.11 | \neg | 93000 | 6400 | 2000 | 19000 | 10000 | |
| RS-5 | 10/04/95 | 230.64 | 17.53 | 213.11 | \Box | 16000 | 420 | 2100 | 320 | 1800 | |
| RS-5 | 12/21/95 | 230.64 | 17.47 | 213.17 | \Box | 48000 | 3500 | 9200 | 840 | 4900 | 50 |
| RS-5 | 03/27/96 | 230.64 | 13.51 | 217.13 | \Box | 68000 | 4900 | 18000 | 1700 | 11000 | < 3000 |
| RS-5 | 06/11/96 | 230.64 | 14.25 | 216.39 | | 66000 | 6300 | 20000 | 2100 | 12000 | < 300 |
| RS-5 | 09/04/96 | 230.64 | 16.50 | 214.14 | | 31000 | 2100 | 11000 | 1100 | 6800 | 40 |
| RS-5 | 12/11/96 | 230.64 | 15.88 | 214.76 | | 85000 | 7000 | 21000 | 1800 | 8900 | 57 |
| RS-5 | 2/21/97 | 230.64 | 13.76 | 216.88 | sh | 100000 | 5000 | 22000 | 1700 | 7300 | <0.5 |
| RS-5 | 5/28/97 | 230.64 | 15.77 | 214.87 | | 52000 | 4500 | 19000 | 2100 | | <0.5 |
| RS-5 | 9/2/97 | 230.64 | 17.47 | 213.17 | | 38000 | 2200 | 9400 | 1300 | | <0.5 |
| RS-5 | 11/24/97 | 230.64 | 18.67 | 211.97 | | 45000 | 4000 | 16000 | 1900 | 9700 | <0.5 |
| RS-5 | 2/25/98 | 230.64 | 10.53 | 220.11 | | 160000 | 2700 | 31000 | 5300 | 28000 | <0.5 |
| RS-5 | 7/8/98 | 230.64 | 13.75 | 216.89 | | 45000 | 2800 | 12000 | 2000 | 8500 | <10 |
| RS-5 | 9/16/98 | 230.64 | 15.80 | 214.84 | | 49000 | 1400 | 7500 | 1700 | 8600 | <5 |
| RS-5 | 11/24/98 | 230.64 | 16.64 | 214 | | 89000 | 5300 | 15000 | 2800 | 13000 | <1 |
| RS-5 | 2/23/99 | 230.64 | 12.36 | 218.28 | | 19000 | 1900 | 32000 | ~ 2500 | 4800 | <25 |

RS-5 Groundwater Elevation



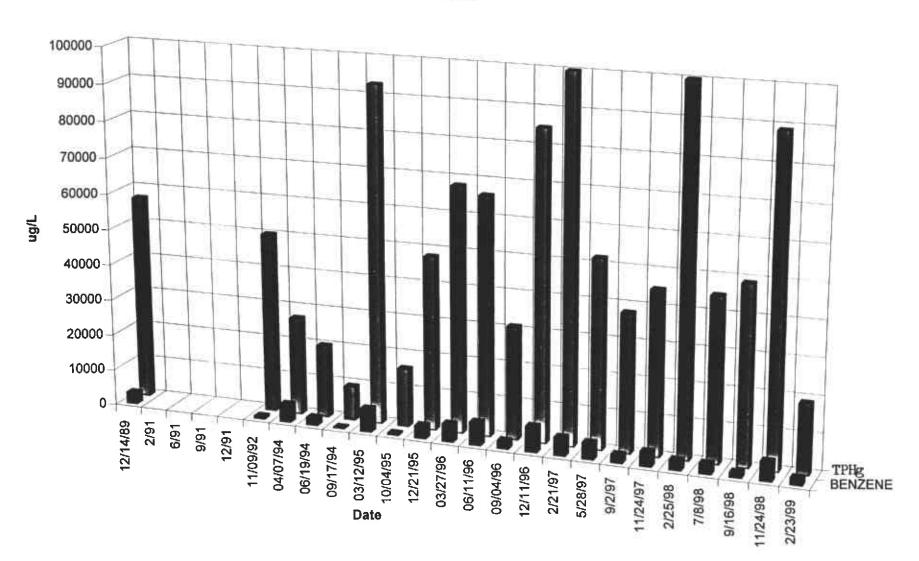
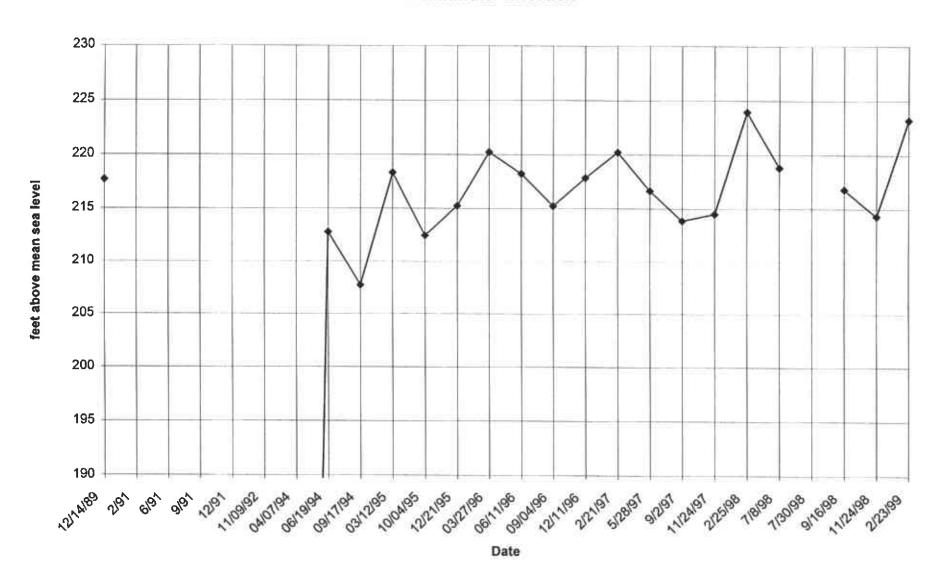


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DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concent | trations i | n parts per | bil | lion (ug/L, | ppb]) | | | | |
|--------|-----------------|--------------|-----------------------------|------------------------------|-----------|-------------|---------|---------|-------------------|---------|--------|
| | | (AMSL = Abov | ve mean se | a level) | | | | | | | |
| ID# | DATE SAMPLED | | DEPTH TO GROUND WATER | GROUND WATER ELEVATION | | TPH-G | BENZENE | TOLUENE | ETHYL- BENZENE | XYLENES | MTBE |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| RS-6 | 12/14/89 | 240.23 | 22.52 | 217.71 | \exists | 11000 | 1400 | 1700 | 160 | 860 | |
| RS-6 | 2/91 | 240.23 | | OATING PRODU | CTE | 11000 | 1400 | 1700 | 160 | 860 | |
| RS-6 | 6/91 | | FD | DATING PRODU | - | 95000 | 4200 | 4200 | 650 | 3700 | |
| RS-6 | 9/91 | | PI | OATING PRODU | CTT | 23000 | 4200 | 4200 | 650 | 3700 | |
| RS-6 | 12/91 | | | CATING PRODU | - | 64000 | 3700 | 2300 | 730 | 4100 | |
| RS-6 | 11/09/92 | 99.27 | 19,43 | 79.84 | \dashv | 19000 | 1600 | 710 | 500 | 1600 | |
| RS-6 | 04/07/94 | 99.27 | 14.42 | 84.85 | - | 16000 | 1200 | 1300 | 290 | 1100 | |
| RS-6 | 06/19/94 | 227.22 | 14.45 | 212.77 | \dashv | 23000 | 1300 | 2200 | 590 | 2200 | |
| RS-6 | 09/17/94 | 227.22 | 19.52 | 207.7 | \dashv | 24000 | 630 | 790 | 250 | 1100 | |
| RS-6 | 03/12/95 | 227.22 | 8.90 | 218.32 | + | 3200 | 450 | 13 | 82 | 230 | |
| RS-6 | 10/04/95 | 230.22 | 17.78 | 212.44 | \dashv | 3700 | 170 | 250 | 38 | 290 | |
| RS-6 | 12/21/95 | 230.22 | 14.98 | 215.24 | \neg | 3100 | 120 | 30 | 16 | 150 | 58 |
| RS-6 | 03/27/96 | 230.22 | 10.00 | 220.22 | ┪ | 6900 | 180 | 440 | 79 | 360 | < 300 |
| RS-6 | 06/11/96 | 230.22 | 12.00 | 218.22 | \neg | 7400 | 220 | 150 | 30 | 100 | <1000 |
| RS-6 | 09/04/96 | 230.22 | 15.00 | 215.22 | \neg | 1400 | 68 | 2.6 | 7.7 | 9.2 | 14 |
| RS-6 | 12/11/96 | 230.22 | 12.36 | 217.86 | | 1800 | 39 | 16 | 10 | 18 | < 0.5 |
| RS-6 | 2/21/97 | 230.22 | 10.00 | 220.22 | | 2100 | 71 | 85 | 25 | 40 | < 0.5* |
| RS-6 | 5/28/97 | 230.22 | 13.56 | 216.66 | | 1700 | 34 | 12 | 11 | 16 | < 0.5* |
| RS-6 | 9/2/97 | 230.22 | 16.35 | 213.87 | | 940 | 34 | 71 | 9 | 55 | < 0.5* |
| RS-6 | 11/24/97 | 230.22 | 15.72 | 214.5 | | 490 | 9 | 6 | 1 | 7 | < 0.5* |
| RS-6 | 2/25/98 | 230.22 | 6.26 | 223.96 | | 1400 | 22 | 47 | 5 | 52 | < 0.5* |
| RS-6** | 7/8/98 | 230.22 | 11.41 | 218.81 | | 1500 | 83 | 9 | 84 | 2 | <10* |
| RS-6 | 7/30/98 | 230.22 | | | | < 50 | <0.5 | <0.5 | <0.5 | <1 | |
| RS-6 | 9/16/98 | 230.22 | 13.42 | 216.8 | | 990 | 23 | <0.5 | <0.5 | <1 | <1* |
| RS-6 | 11/24/98 | 230.22 | 15.91 | 214.31 | | 3400 | 5,3 | <0.5 | <0.5 | 14 | <0.5 |
| RS-6 | 2/23/99 | 230.22 | 7.00 | 223.22 | | 1000 | 3.4 | 3.2 | 1.6 | 7.3 | <0.5 |

RS-6 Groundwater Elevation



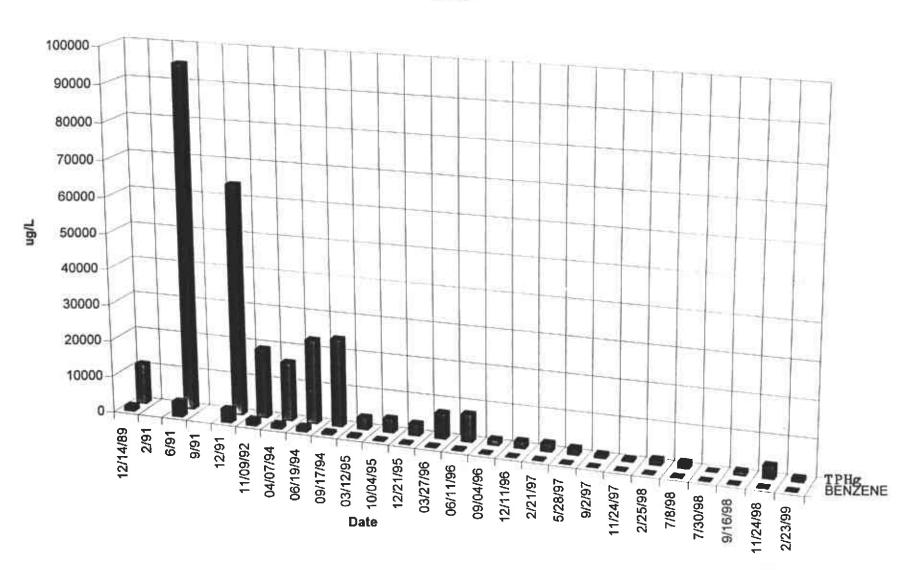
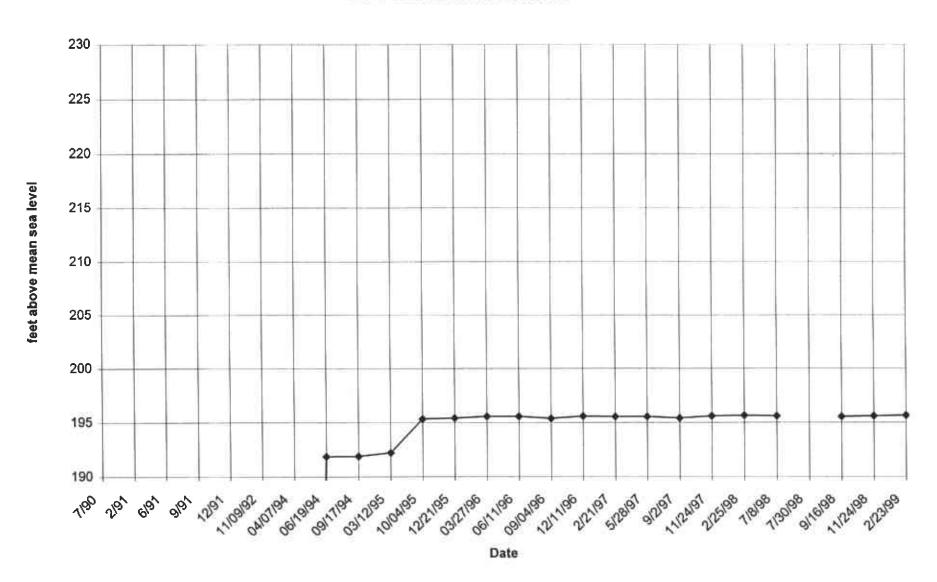


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GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | | | | illion [ug/L, | ppb]) | | | | |
|--------|----------|-------------|----------|----------------|---------------|-------------|---------|---------|---------|--------|
| " | | (AMSL = Abo | | | | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| | SAMPLED | CASING | GROUND | WATER | | | 1 | BENZENE | | |
| | | ELEVATION | WATER | ELEVATION | 1 | | | | | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| RS-7 | 7/90 | | | | 5600000 | 24000 | 210000 | 50000 | 740000 | |
| RS-7 | 2/91 | | FI. | OATING PRODUCT | | 24000 | 210000 | 30000 | 740000 | |
| RS-7 | 6/91 | - | | OATING PRODUCT | _ | | | | | |
| RS-7 | 9/91 | | | OATING PRODUC | | | | | | |
| RS-7 | 12/91 | | - 12 | OMITMO TRODUC | 270000 | 11000 | 22000 | 2000 | 13000 | |
| RS-7 | 11/09/92 | 67.88 | 4.62 | 63.26 | 81000 | 12000 | 16000 | 1900 | 13000 | |
| RS-7 | 04/07/94 | 67.88 | 4.03 | 63.85 | 74000 | 16000 | 16000 | 1400 | 8500 | |
| RS-7 | 06/19/94 | 195.92 | 4.07 | 191.85 | 83000 | 22000 | 19000 | 1500 | 9500 | |
| RS-7 | 09/17/94 | 195.92 | 4.05 | 191.87 | 270000 | 13000 | 15000 | 2100 | 1100 | |
| RS-7 | 03/12/95 | 195.92 | 3.72 | 192.2 | 35000 | 5100 | 560 | 6300 | 3600 | |
| RS-7 | 10/04/95 | 199.35 | 4.03 | 195.32 | 96000 | 14000 | 14000 | 1300 | 7000 | |
| RS-7 | 12/21/95 | 199.35 | 3.95 | 195.4 | 70000 | 9300 | 12000 | 860 | 5600 | 210 |
| RS-7 | 03/27/96 | 199.35 | 3.80 | 195.55 | 64000 | 8900 | 14000 | 1100 | 8300 | < 3000 |
| RS-7 | 06/11/96 | 199.35 | 3.79 | 195.56 | 65000 | 12000 | 17000 | 1600 | 9700 | <5000 |
| RS-7 | 09/04/96 | 199.35 | 3.99 | 195.36 | 20000 | 4900 | 2100 | 670 | 4400 | 100 |
| R\$-7 | 12/11/96 | 199.35 | 3.78 | 195.57 | 17000 | 4400 | 7500 | 570 | 4600 | 180 |
| RS-7 | 2/21/97 | 199.35 | 3.82 | 195.53 | 93000 | 31000 | 47000 | 3800 | 23000 | <0.5* |
| RS-7 | 5/28/97 | 199.35 | 3.82 | 195.53 | 52000 | 12000 | 8200 | 2000 | 11000 | <0.5* |
| RS-7 | 9/2/97 | 199.35 | 3.96 | 195.39 | 28000 | 6100 | 2800 | 950 | 3800 | <50 |
| RS-7 | 11/24/97 | 199.35 | 3.76 | 195.59 | 18000 | 4300 | 5900 | 600 | 2900 | <0.5* |
| RS-7 | 2/25/98 | 199.35 | 3.70 | 195.65 | 13000 | 4300 | 7100 | 1100 | 5800 | <0.5* |
| RS-7** | 7/8/98 | 199.35 | 3.76 | 195.59 | 45000 | 10000 | 3400 | 2000 | 8000 | <10* |
| RS-7 | 7/30/98 | | li i | | 72000 | 12000 | 2100 | 2000 | 9100 | |
| RS-7 | 9/16/98 | 199.35 | 3.83 | 195.52 | 5000 | 6500 | 160 | <2.5 | 500 | <5* |
| RS-7 | 11/24/98 | 199.35 | 3.77 | 195.58 | 19000 | 2100 | 1100 | 500 | 2100 | <0.5 |
| RS-7 | 2/23/99 | 199.35 | 3.70 | 195.65 | | erse - 6500 | 9900 | 1200 | 7000 | <10 |

RS-7 Groundwater Elevation



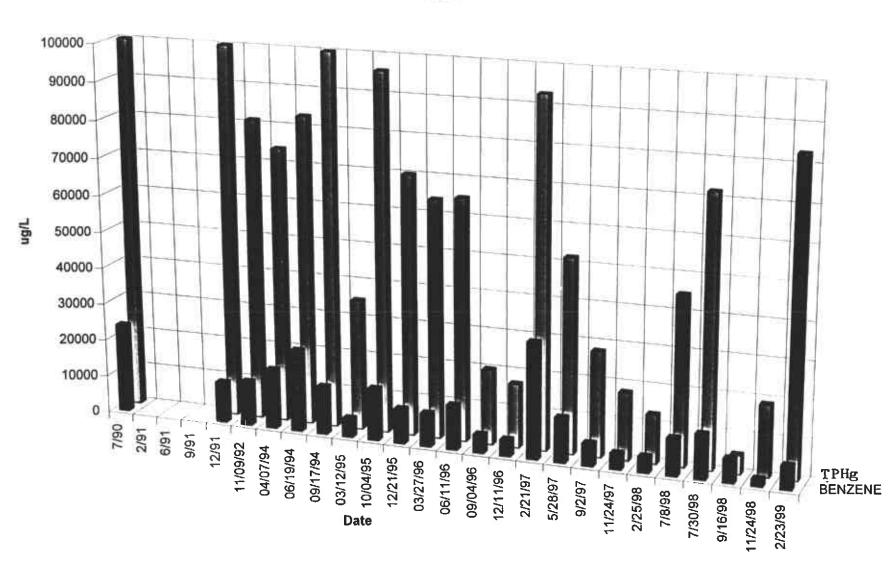
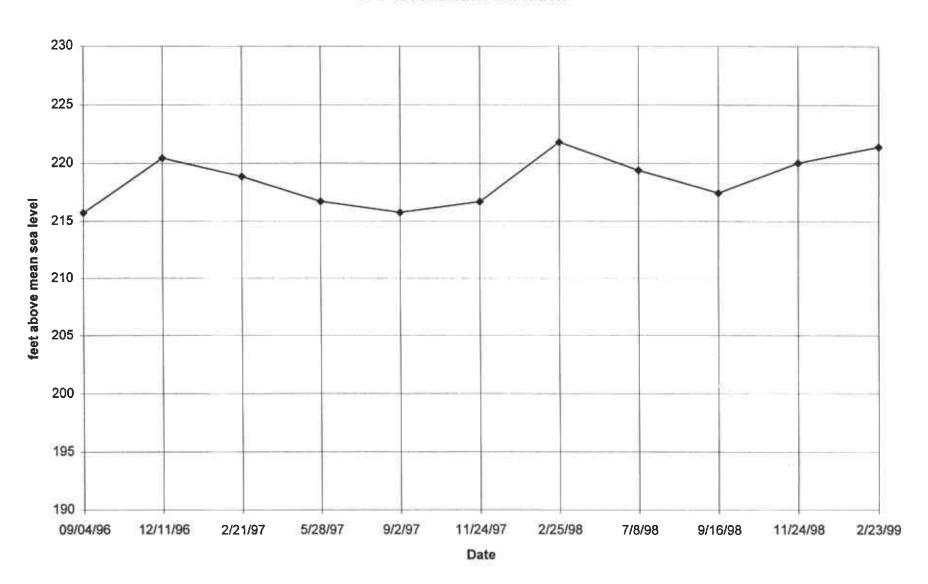
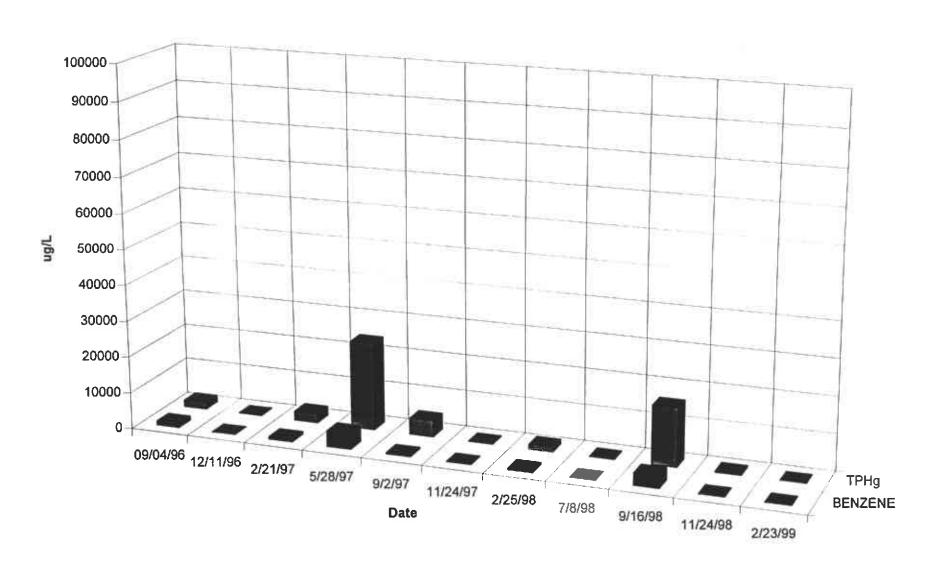


TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concen | trations i | n parts per | bi | llion [ug/L, | ppb]) | | | | |
|------------|----------|-------------|------------|-------------|----|--------------|---------|---------|---------|---------|--------|
| | | (AMSL = Abo | ve mean se | a level) | | | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| | SAMPLED | CASING | GROUND | WATER | | | | | BENZENE | | |
| | | ELEVATION | WATER | ELEVATION | | | | | | | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| | | | | | _ | | | | | | |
| RECOVERY 1 | 09/04/96 | 230.73 | 15.00 | 215.73 | | 1800 | 1100 | 3 | 29 | < 10 | < 30 |
| RECOVERY 1 | 12/11/96 | 230.73 | 10.30 | 220,43 | | <50 | <0.5 | < 0.5 | < 0.5 | < 1 | 4 |
| RECOVERY 1 | 2/21/97 | 230.73 | 11.88 | 218.85 | | 2500 | 670 | 9 | 3 | 13 | <0.5 |
| RECOVERY 1 | 5/28/97 | 230.73 | 14.03 | 216.7 | | 24000 | 4300 | 36 | 2000 | 370 | <0.51 |
| RECOVERY 1 | 9/2/97 | 230.73 | 14.98 | 215.75 | | 4400 | 320 | 6 | 340 | 72 | 20 |
| RECOVERY 1 | 11/24/97 | 230.73 | 14.06 | 216.67 | | 100 | 39 | 1 | 18 | 10 | <0.9 |
| RECOVERY 1 | 2/25/98 | 230.73 | 8.93 | 221.8 | | 1200 | 400 | 8 | 13 | 150 | <0.5 |
| RECOVERY 1 | 7/8/98 | 230.73 | 11.36 | 219.37 | | 68 | 14 | < 0.5 | < 0.5 | < 1 | <11 |
| RECOVERY 1 | 9/16/98 | 230.73 | 13.30 | 217.43 | | 16000 | 3400 | 92 | < 0.5 | 410 | <11 |
| RECOVERY 1 | 11/24/98 | 230.73 | 10.72 | 220.01 | | 340 | 19 | 1.6 | 35 | 9.7 | <0.5 |
| RECOVERY 1 | 2/23/99 | 230.73 | 9.34 | 221.39 | | 60 | 16 | 0.6 | 5.6 | 1.2 | <0.5 |

R-1 Groundwater Elevation





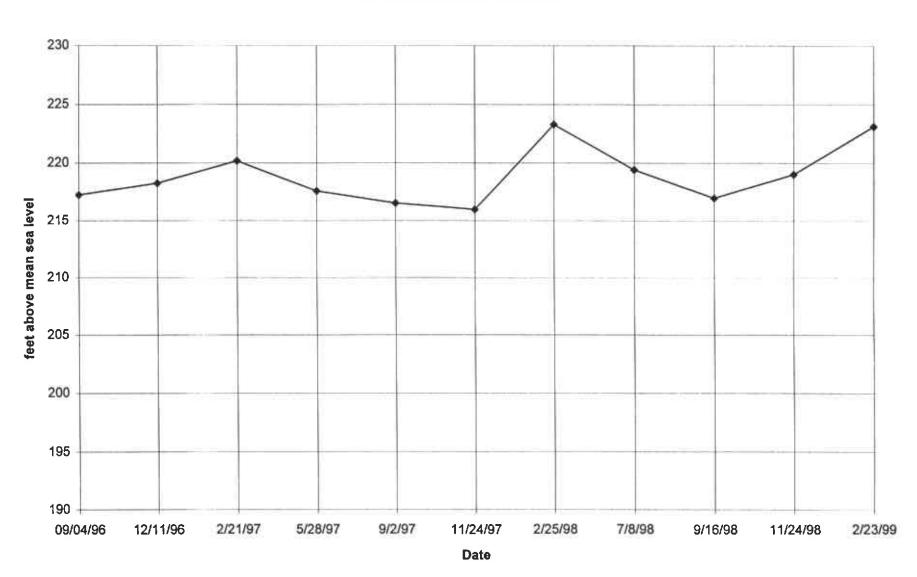
23

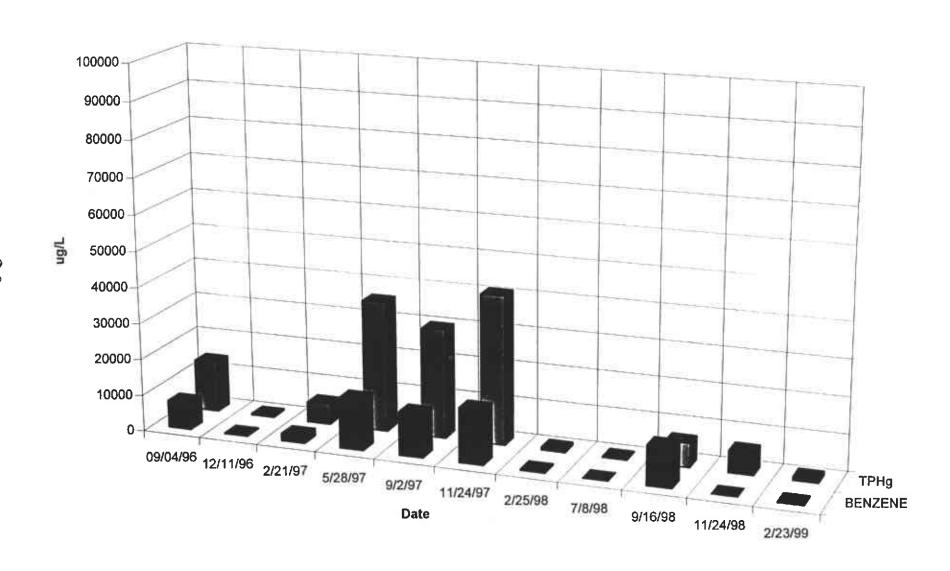
TABLE 1

GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | (All concen | trations i | n parts per | bi | llion [ug/L, | ppb]) | | | | |
|------------|----------|-------------|------------|-------------|----|--------------|---------|---------|---------|---------|--------|
| | | (AMSL = Abo | ve mean se | a level) | - | 9- | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| | SAMPLED | CASING | GROUND | WATER | | | | | BENZENE | | |
| | | ELEVATION | WATER | ELEVATION | | | 1 | | | | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| | + | | | | | | | | | | |
| RECOVERY 2 | 09/04/96 | 230.68 | 13.44 | 217.24 | | 14000 | 7600 | <10 | 170 | 190 | <100 |
| RECOVERY 2 | 12/11/96 | 230.68 | 12.42 | 218.26 | | 488 | 300 | 1 | < 0.5 | 30 | 16 |
| RECOVERY 2 | 2/21/97 | 230.68 | 10.50 | 220.18 | | 5700 | 2100 | 5 | 2 | 10 | 31 |
| RECOVERY 2 | 5/28/97 | 230.68 | 13.10 | 217.58 | | 36000 | 14000 | 63 | 260 | 220 | <0.51 |
| RECOVERY 2 | 9/2/97 | 230.68 | 14.16 | 216.52 | | 30000 | 12000 | 330 | 1000 | 790 | 47 |
| RECOVERY 2 | 11/24/97 | 230.68 | 14.71 | 215.97 | | 41000 | 15000 | 830 | 1500 | 4200 | <0.5* |
| RECOVERY 2 | 2/25/98 | 230.68 | 7.39 | 223.29 | | 800 | 400 | <0.5 | <0.5 | 15 | <0.5 |
| RECOVERY 2 | 7/8/98 | 230.68 | 11.27 | 219.41 | | 290 | 31 | < 0.5 | 1 | < 1 | 21 |
| RECOVERY 2 | 9/16/98 | 230.68 | 13.73 | 216.95 | | 6600 | 11000 | 24 | <0.5 | 35 | <1' |
| RECOVERY 2 | 11/24/98 | 230.68 | 11.67 | 219.01 | | 6100 | <0.5 | 36 | <0.5 | 21 | <0.5 |
| RECOVERY 2 | 2/23/99 | 230.68 | 7.55 | 223 - 13 | | 1100 | 310. | 3 | 2 | 26 | <0.9 |

R-2 Groundwater Elevation





7

TABLE 1
GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABAORATAORY RESULTS FROM WATER SAMPLES
DESERT PETROLEUM, INC. SITE #793
4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

| | | | | | bi. | llion [ug/L, | ppb]) | | | | |
|------------|----------|-------------|------------|-------------|-----|---------------|------------|-----------|---------|---------|--------|
| | | (AMSL = Abo | ve mean se | a level) | - | | | | | | |
| ID# | DATE | WELL | DEPTH TO | GROUND | | TPH-G | BENZENE | TOLUENE | ETHYL- | XYLENES | MTBE |
| | SAMPLED | CASING | GROUND | WATER | | | 0 1 | | BENZENE | | |
| | | ELEVATION | WATER | ELEVATION | | | | | | | |
| | | (FEET AMSL) | (FEET) | (FEET AMSL) | | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) | (UG/L) |
| | | | | | | | | | | | |
| | | | | | _ | | | | | | |
| RECOVERY 3 | 09/04/96 | | 9.90 | 220.42 | | <50 | <0.5 | <0.5 | <0.5 | <2 | <5 |
| RECOVERY 3 | 12/11/96 | 230.32 | 8.18 | 222.14 | | <50 | <0.5 | <0.5 | <0.5 | <1 | 5 |
| RECOVERY 3 | 2/21/97 | 230.32 | 6.76 | 223.56 | | 340 | 35 | 59 | 8 | 54 | <0.5* |
| RECOVERY 3 | 5/28/97 | 230.32 | 9.98 | 220.34 | | <50 | <0.5 | <0.5 | <0.5 | <1 | <0.5* |
| RECOVERY 3 | 9/2/97 | 230.32 | 10.86 | 219.46 | | <50 | 4 | <0.5 | <0.5 | <1 | <0.5* |
| RECOVERY 3 | 11/24/97 | 230.32 | 11.20 | 219.12 | no | t enough wate | r to sampl | e. No sam | ple | | |
| RECOVERY 3 | 2/25/98 | 230.32 | 3.42 | 226.9 | | <50 | <0.5 | <0.5 | <0.5 | <1 | <0.5* |
| RECOVERY 3 | 7/8/98 | 230.32 | 8.78 | 221.54 | | 140 | <0.5 | <0.5 | 4 | 24 | < l * |
| RECOVERY 3 | 9/16/98 | 230.32 | 10.38 | 219.94 | | <50 | <0.5 | <0.5 | <0.5 | <1 | <1* |
| RECOVERY 3 | 11/24/98 | 230.32 | 11.12 | 219.2 | no | t enough wate | r to samp | e. No sam | ple | | |
| RECOVERY 3 | 2/23/99 | 230.32 | 3.95 | 226.37 | | <50 | <0.5 | <0.5 | <0.5 | <1 | <0.5* |

ND

BELOW LABORATORY DETECTION LIMITS

TPH-G

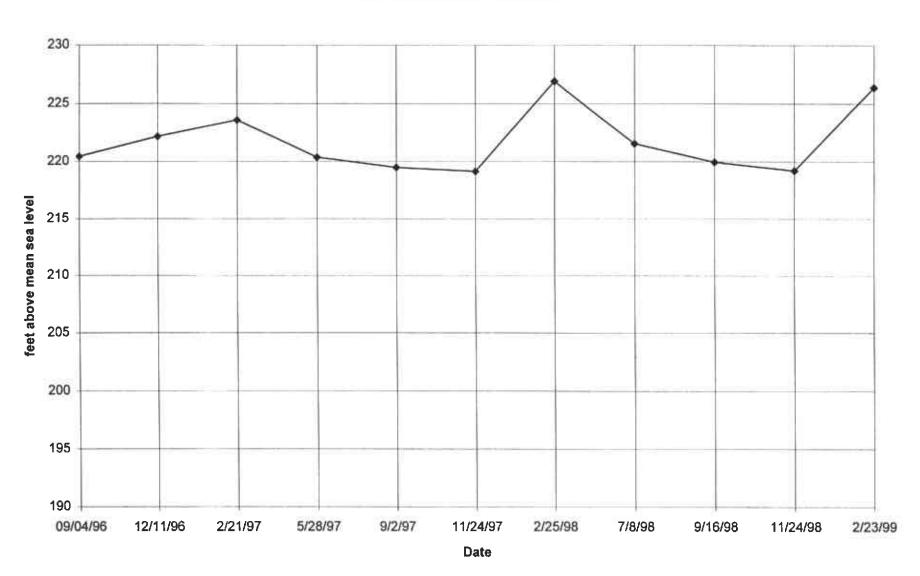
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

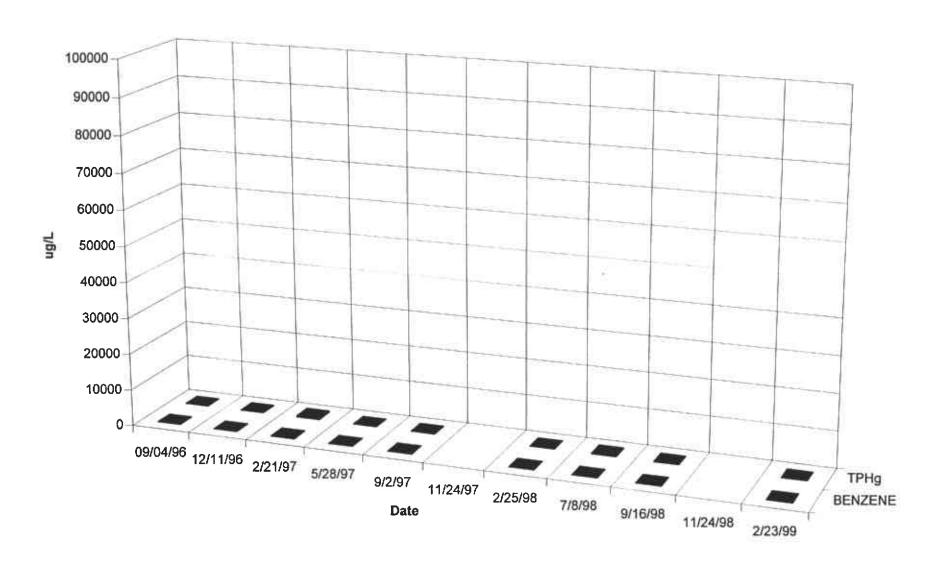
.

MTBE results confirmed by EPA Method 8260 (GC/MS)

** LAB REPORT HAD RS-6 AND RS-7 MISLABELED, RESAMPLE ON 7/30/98 CONFIRMED.

R-3 Groundwater Elevation





DESERT STATION #793 4035 Park Blvd. Oakland, California

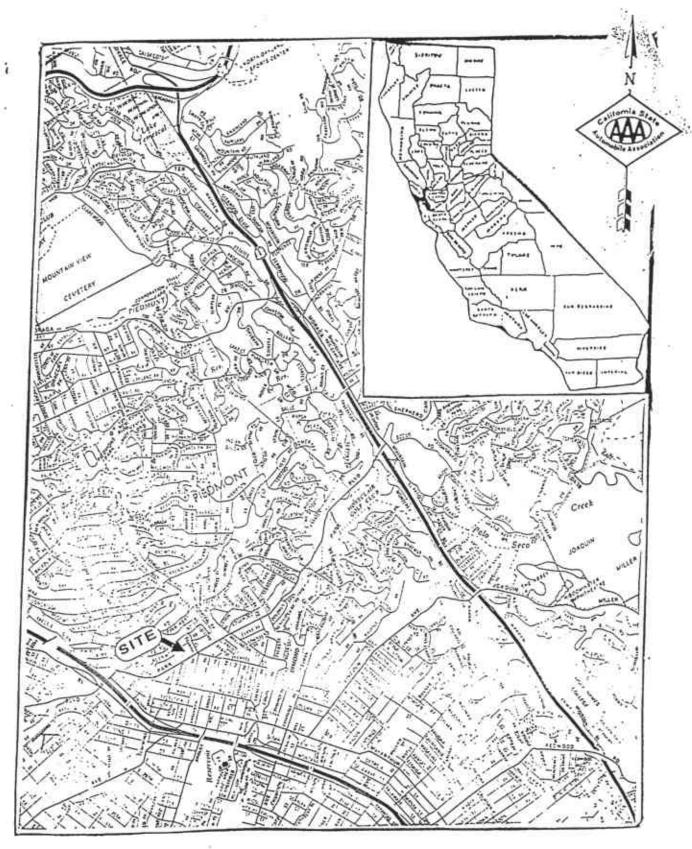


FIGURE 1

Location (AAA Hap)

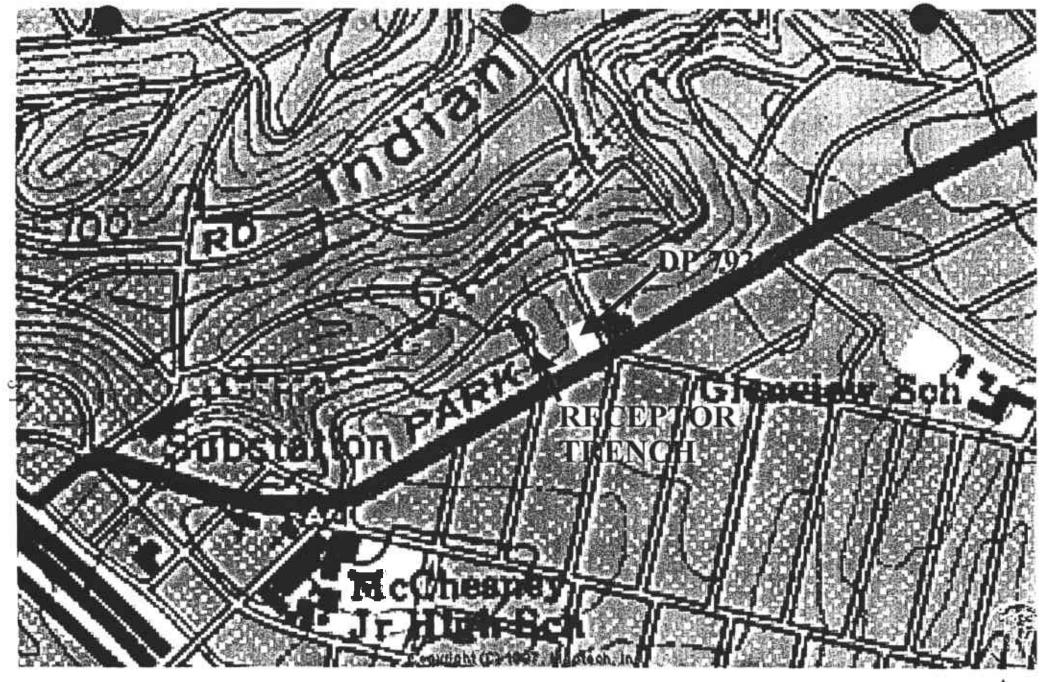


FIGURE 2 PORTION OF OAKLAND EAST 7.5 MINUTE USGS TOPOGRAPHIC MAP



UNDERGROUND UTILITIES

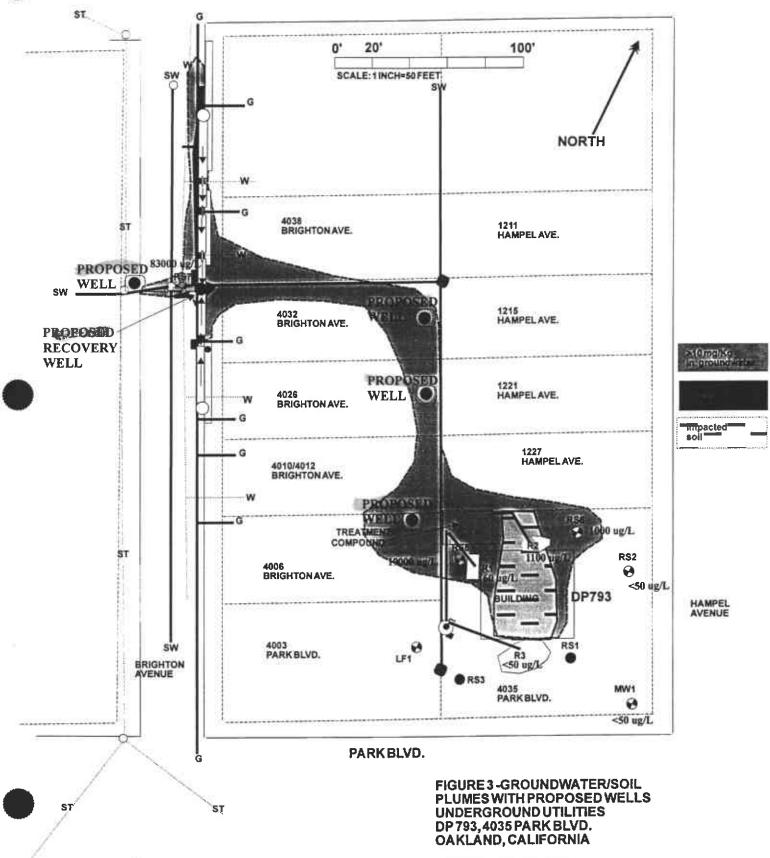
G NATURAL GAS UTILITY

W WATER UTILITY

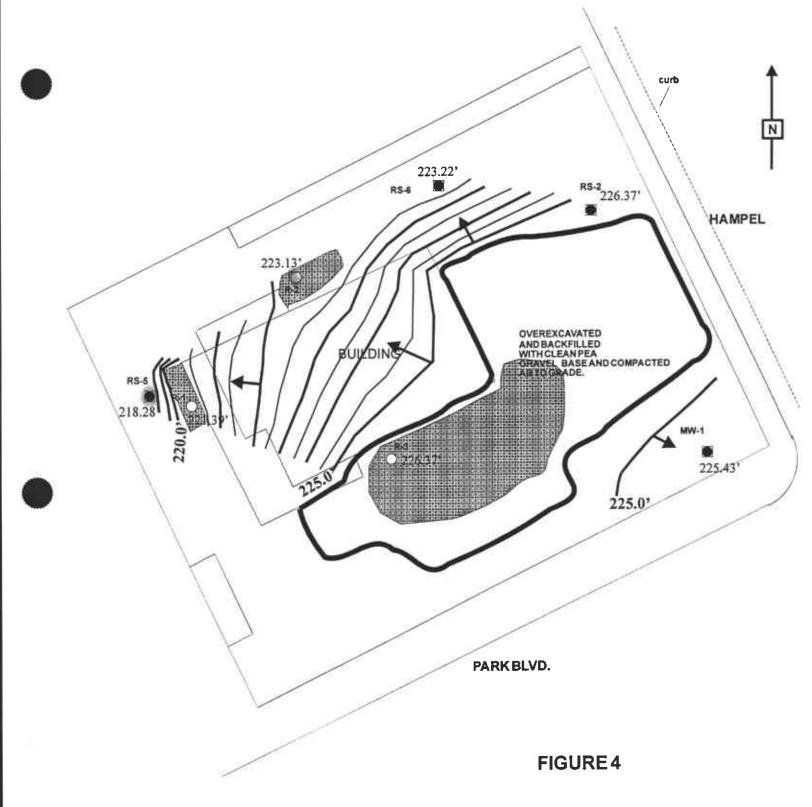
SW SEWERUTILITY

ST STORMWATER UTILITY

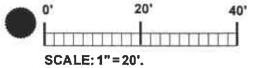




FEBRUARY 23,1999



GROUNDWATER ELEVATION CONTOUR INTERVAL EQUALS ONE FOOT. ELEVATIONS ARE MEASURED IN FEET AMSL



GROUNDWATER ELEVATION GRADIENTS AND FLOW DIRECTION ON: FEBRUARY 23,1999

DESERT PETROLEUM STATION #793 4035 PARK BLVD.. OAKLAND, CALIFORNIA 94602

APPENDIX A

QA/QC METHODS & PROCEDURES

APPENDIX A.

METHODS AND PROCEDURES, QA/QC

This Appendix documents the specific methods, procedures, and materials used to collect and analyze ground water samples.

Gauging and Measuring Monitor Wells.

Prior to sampling a well, WEGE personnel obtain two measurements: the depth to ground water and the product thickness using a battery powered depth to water-product interface probe and or by using a specially designed bailer. The probe is lowered into the well casing until the instrument signals that the top of water has been reached. The distance from the top of water to the top of casing is read from the tape calibrated in 0.01 foot intervals for accuracy to 0.01 foot, that is attached to the probe. The measured distance is subtracted from the established elevation at the top of casing to determine the elevation of ground water with respect to mean sea level.

The probe is washed with TSP and rinsed in distilled water before each measurement. WEGE has designed and built bailers that will collect a sample of the contents of a well to show the exact thickness of any floating product.

Purging Standing Water from Monitor Wells

If no product is present, WEGE personnel purge the well. This is accomplished by removing ground water from the well until the water quality parameters (temperature, pH, and conductivity) stabilize, or until the well is emptied of water. Periodic measurements of ground water temperature, pH, and conductivity were taken with a Hydac Monitor or other meter and recorded along with the volume of ground water removed from the well. Purging is done by one or more methods singularly or in combination. Bailers, pneumatic or electric sample pumps, or vacuum pump tanks or trucks may be used. The usual amount of water removed is three well volumes. The water collected during purging is either safely stored onsite for later disposition, transported to an approved onsite or offsite sewer discharge system, or an approved onsite or offsite treatment system.

Collection of Water Sample for Analysis

The well is allowed to recover after purging and a ground water sample is collected. A fresh bailer is used to collect enough water for the requirements of the laboratory for the analyses needed or required. The water samples are decanted from the bailer into the appropriate number and size

containers. These containers are furnished pre-cleaned to exact EPA protocols, with and without preservatives added, by the analytical laboratory or a chemical supply company. The bottles are filled, with no headspace, and then capped with plastic caps with teflon liners.

The vials or bottles containing the ground water samples are labeled with site name, station, date, time, sampler, and analyses to be performed, and documented on a chain of custody form. They were placed in ziplock bags and stored in a chest cooled to 4øC with ice. The preserved samples are chain of custody delivered to the chosen laboratory.

Analytical Results

TPH is the abbreviations used for Total Petroleum Hydrocarbons used by the laboratories for water and soil analyses. The letter following TPH indicates a particular distinction or grouping for the results. The letters "g", "d", "k", or "o" indicates gasoline, diesel, kerosene, or oil, respectively, ie. TPH-d for diesel range TPH.

BTEX or MTBE are acronyms or abbreviations used for Benzene, Toluene, Ethylbenzene and all of the Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE), respectively.

MBTEX is the designation for the combination of the above five compounds.

The less than symbol, <, used with a "parts per value" indicates the lower detection limit for a given analytical result and the level, if present, of that particular analyte is below or less than that lower detection limit.

Other abbreviations commonly used are ppm, ppb, mg/Kg, ug/Kg, ml/l and ul/l are parts per million, parts per billion, milligrams per kilogram, micrograms per kilogram, milliliters per liter, microliters per liter, respectively.

Chain of Custody Documentation

All water samples that are collected by WEGE and transported to a certified analytical laboratory are accompanied by chain-of-custody (COC) documentation. This documentation is used to record the movement and custody of a sample from collection in the field to final analysis and storage. Samples to be analyzed at the certified laboratory were logged on the COC sheet provided by the laboratory. The same information provided on the sample labels (site name, sample location, date, time, and analysis to be performed) are also noted on the COC form. Each person relinquishing custody of the sample set signs the COC form indicating the date and time of the transfer to the recipient. A copy of the COC follows the samples or their extracts throughout the laboratory to aid the analyst in identifying the samples and to assure analysis within holding times.

Copies of the COC documentation are included with the laboratory results in Appendix C of this report.

APPENDIX B

FIECD NOTES

David Pittman Well Purge

Post Office Box 90, Goodyears Bar, CA 95944-0090 530/289-3133

| DATE / | EB 23 | 99 | INVOI | CE_00004 |
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| Re 2 | EB 23 124/99 | | | |
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| SITENA | ME OAK | KLAND 793 C | ustomer <u>WESTER</u> | J GEO |
| ADDRES | | | | |
| CITY/S | TATE | | | |
| PHONE | Colusa | 2/24/99 | | |
| <i>/⊅</i> WELL | # | DESCRIPTION OF WO | RK PERFORMED | |
| | π | | ons Purged | |
| MW | 7 | 5 GALLO | I | |
| <u> RS</u> | 2 | 25 | | |
| RS | 6 | 45 | | |
| R | > | 40 | | |
| RS | 5 | 40 | | |
| | | | | |
| R | | 33 | | |
| R_ | 3 | 30 | | |
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| | | | | |
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| | | | | |
| | <u> </u> | WOLDS ! MINIME | 3 | |
| ARRIVA | AL TIME | HOURS MINUTES | - | |
| DEPART | CURE TIM | | _ | |
| | TIME AT | | TOTAL LABOR | \$ <u>/35.00</u> |
| TRAVE | L TIME 1 | FROM <u>SAC</u> TO OA | <u>к</u> то — | \$ 78.75 |
| 13/4 | HOURS | 8 @ \$45.00 PER HOUR | TOTAL TRAVEL | |
| 95 | MILES | S @ \$.40 PER MILE | TOTAL MILEAGE | \$ <u>38,00</u> |
| | | | invoice total | =\$ <u>251.75</u> |



North State Environmental Analytical Laboratory 90 South Spruce Avenue, Suite W, South San Francisco, CA 94080 Phone: (650) 266-4563 Fax: (650) 266-4560

| Chain of Custody | / Request for Analysis |
|------------------|------------------------|
| ab Job No.: | Pageof |

| Client: WEGE | | | Report | to: Georg | e Con | ucrse | | Phone | 530-6 | (8-53 | 300 | Т | urnaround Time |
|---|------------------|-------------------------|-----------|-------------------|--------------|-------------|-------|----------|---------------------|----------|------------|----------|---------------------|
| Mailing Addross: | Eugineei | <i>i</i> s | Billing f | to: Georgio: SAME | | | : | Fax: 5 | 30-66 Billing Re | 2-027 | 73 | Date: | 223-99 |
| Western Geo 1 1386 E. BERM Woodland, CH | er st 1 95776 | <u> </u> | | | | | | , | | | , | | BRONDWARD |
| Project / Site Address: | | , | | | Analys | is / | | / | | | | | |
| DP 793 | 4035 P | ark Blud | | Re | quested | | 16 | - / - | | | | | / |
| Sample ID | Sample Type | Container No. / Type | Pres. | Samp Date / | ling Fime | is of | / Ref | _ | | | | / | /Comments / Hazards |
| MWI | H20 | 2/1095 | HCL | 2-23-99 | 8:49 | | | | | | | | |
| RI | | | | | 1100 | | | | | | | | |
| R2 | | | | <u> </u> | 1016 | | | <u> </u> | <u> </u> | | | | |
| R3 | | | | | 1116 | | | | | | <u> </u> | | |
| R52 | | | | | 0913 | | | <u> </u> | | | | | |
| R55 | | | | | 1043 | | | | <u> </u> | ļ | ļ <u>.</u> | | |
| R56 | | | | <u> </u> | 0955 | | | <u> </u> | <u> </u> | | | | |
| R57 | | | | 1 | 1132 | | | <u> </u> | <u> </u> | <u> </u> | <u> </u> | | |
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| Relinquished by: | | 0 | | Date: | Time: | ·· | Recei | ived by: | | | | | _ |
| Relinquished by: | | | | Date: | Time: | | Recei | ived by: | | | | | |



| SITE DP 793 | DATE | 2-23-99 | TIM | IE 108 30 |
|---------------------|-----------|----------|--------|---|
| WELL Mai | SAMPLI | ED BY. 💪 | BROADW | A. M. |
| WELL ELEVAT | ION | | | |
| DDODICT THIC | KNESS | | | |
| DEPTH TO WAT | ΓER 70 | ¥ 9.14 | DTB | 18.37 |
| FLUID ELEVAT | YON | 1 1 1 0 | | |
| BAILER TYPE PUMP | DISPOSABL | e Driver | | |
| PUMP | emola FII | MAN | | |

| | WELL PU | RGING R | ECORD | LOOVE |
|------|-------------------|----------|----------|--------------|
| TIME | VOLUME REMOVED | TEMP. | pН | COND. |
| 0835 | 1 Bailer | 68.4 | 9.24 | 3.99 |
| 40 - | 5 91/ | 69.3 | 6.37 | 3.68 3.62 |
| 42 | , , | 68.0 | 6.93 | 3.58 |
| 45 | . / | 67.5 | 6.31 | 3.58 |
| 47 | / | 67.5 | 691 | 3.33 |
| | | | | |
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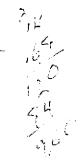
| G 44/ |
|------------------------------------|
| FINAL VOLUME PURGED 8 11/ |
| TIME SAMPLED 879 |
| SAMPLE ID. Mail |
| SAIVII LLE ID. |
| SAMPLE CONTAINERS =/40cc VOR 5 |
| ANALYSIS TO BE RUN TPHG 87EX /MTRE |
| |
| NOTES: IST RIVER CLEAR NO COOR |
| NOTES: 15T BAILER CLEAR No Codes |
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| SITE DP 793 | DATE | 2-23-99 | TIN | ME_ | 0355 | |
|--------------|----------|-------------|----------|--|-------------|--|
| WELL RSA | SAMPI | ED BY. | BROADU | JAN | | |
| WITT VOC | | | <u> </u> | - - - - - - - - | | |
| WELL ELEVAT | TON | | | | | |
| WELL ELEVAI | TUN | | | | | |
| PRODUCT THIC | CKIAE22 | | | | | |
| DEPTH TO WA | TER | 4.05 | DTB | _/5'_ | 401 | |
| FLUID ELEVAT | LION | | | | | |
| BAILER TYPE | Disposab | le Briler | | | | |
| PUMP | David Pi | Hman | | | | |

| | WELL PU | RGING R | ECORD | |
|-------------|-------------------|---------|-------|-------|
| TIME | VOLUME REMOVED | TEMP. | pH | COND. |
| 0857 | 1 Bailer | 627 | 662 | 4.34 |
| 0105. | 391/ | 666 | 6.80 | 9,69 |
| <i>P.</i> 2 | 1 | 67.2 | 6.93 | 10.07 |
| 69 | 1 1 | 67.3 | 6.96 | 10.23 |
| iJ | 1 | 673 | 605 | 10.51 |
| | | | | |
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| FINAL VOLUME PURGED 28 34/ | |
|------------------------------------|-----|
| TIME SAMPLED 09/3 | |
| CAMPLE ID RS 2 | |
| SAMPLE CONTAINERS 7/40cc VOILS | - |
| ANALYSIS TO BE RUN TPHE STEX /MTRE | |
| ILABORATORY NSE | |
| NOTES: 1st Bailer Clear No Color | |
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| SITE OP 793 | DATE | 2-23-90 | TIM. | 正 |) ⁻ |
|---|-----------|-----------|---------|----------|----------------|
| WELL RS 6 | SAMPL | ED BY. | BROADW. | 'AM | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | | |
| WELL ELEVAT | NOľ | | | | |
| PRODUCT THIC | CKNESS | | | | |
| DEPTH TO WA | TER | 7.0 | DTB | 3402 | |
| FLUID ELEVAT | TION | | | | |
| BAILER TYPE | DisposAbi | le Briler | | | |
| PUMP | David Pi | Hman | | | |

| | WELL PU | RGING R | ECORD | |
|-------|----------|---------|-------|-------|
| TIME | VOLUME | TEMP. | pH | COND. |
| | REMOVED | F° | | XIOOO |
| 0919 | 1 Bailer | 663 | 633 | 5.2/ |
| 0945. | 45\$ ga/ | 652 | 6.86 | 11,26 |
| 0948 | / | 67.2 | 7.01 | 17.36 |
| 0950 | 1 | 62.8 | 7.17 | 10.02 |
| 6253 | / | 62.2 | 7.18 | 10.90 |
| | | | | |
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| FINAL VOLUME PURGED 48 11/ |
|------------------------------------|
| TIME SAMPLED 0955 |
| SAMPLE ID. 186 |
| SAMPLE CONTAINERS & 4000 VOR 5 |
| ANALYSIS TO BE RUN TPHE BTEX INTRE |
| LABORATORY NSE |
| NOTES: 1st Briler Clear No Oder |
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GEO-ENGINEERS

| SITE DP 793 | DATE | 2-23-63 | TIN | <u> </u> | <u>^ </u> |
|-------------|-----------|----------|--------|----------|--|
| WELL R2 | SAMPL | ED BY. | BROADU | 189 | |
| | | | | | |
| WELL ELEVAT | ION | | | | |
| PRODUCT THE | CKNESS | | | | |
| DEPTH TO WA | TER | 7.55 | DTB | 16.8 | |
| FLUID ELEVA | LION | | | | |
| RAILER TYPE | DISPOSADI | e Briler | | | |
| PUMP | DAVID PIT | tman | | | · |

| | WELL PU | RGING R | <u>ECORD</u> | |
|----------------|----------|---------|--------------|-------|
| TIME | VOLUME | TEMP. | pН | COND. |
| 1 114177 | REMOVED | F° | | XIOOO |
| | 1 Bailer | 634 | · 7.22 | 9.62 |
| 10. | 4091 | 63.0 | 7.02 | 9,86 |
| | 1 1 | 63.0 | 2,03 | 9.77 |
| /2 | | 629 | 203 | 9.75 |
| 14 | | | | |
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| FINAL VOLUME PURGED 42 14 | |
|------------------------------------|--------------|
| TIME SAMPLED 1016 | |
| SAMPLE ID. R.2 | |
| CAMPIE CONTAINERS 8/40cc VOR'S | |
| ANALYSIS TO BE RUN TPHG BTEX /MTRE | |
| LABORATORY NSE | |
| NOTES: 1st Bailer Clear Pon Mor | |
| NOTES. / DAILER CASE | |
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| SITE OP 793 | DATE 323 | · · · · · · · · · · · · · · · · · · · | IME |
|---------------------|----------------|---------------------------------------|---------|
| WELL & 3 | SAMPLED B | Y. BROAD | lway |
| WELL ELEVAT | ION | | |
| PRODUCT THIC | CKNESS | | |
| DEPTH TO WA | TER 3 | 95 DTE | 3 11.74 |
| FLUID ELEVAT | Disposable BAI | ler | |
| BAILER TYPE PUMP | David Pittman | | |

| | WELL PU | RGING R | ECORD | |
|---------|----------|---------|--------|-------|
| TIME | VOLUME | TEMP. | pН | COND. |
| IIIVILL | REMOVED | F° | | X1000 |
| 1102 | 1 Bailer | 65.7 | * 7.15 | 14.61 |
| 1107 - | 30 ga/ | 68.3 | 6.79 | 8:32 |
| 1109 | , , | 68. j | 6.83 | 8.21 |
| 1101 | | 68.0 | 6,34 | 8.21 |
| 11.13 | / | 67.1 | 6.81 | 7.86 |
| 11.15 | / | 67.1 | 631 | 7.85 |
| | | | | |
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| FINAL VOLUME PURGED 342 14 |
|------------------------------------|
| TIME SAMPLED 1116 |
| CAMPIEID RT |
| SAMPLE CONTAINERS 3/4000 VOR 5 |
| ANALYSIS TO BE RUN TPHG BTEX /MTRE |
| TARORATORY NSE |
| NOTES: 1st Briler Cless No Oder |
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| SITE DP 793 | DATE 2:23.60 | TIM | | |
|--------------|-------------------|---------|-------|---|
| WELL AS 5 | SAMPLED BY. | BROADW. | 'AM | |
| | | | | |
| WELL ELEVAT | ION | | | |
| PRODUCT THIC | CKNESS | | | |
| DEPTH TO WAT | ΓER 12.56 | DTB | 39.20 | ··· · · · · · · · · · · · · · · · · |
| FLUID ELEVAT | | | | |
| BAILER TYPE | Disposable Briler | | | |
| PUMP | David Pittman | | · | |

| | | | TOODD | |
|--------|---------------------|-------|-------|-------|
| | WELL PURGING RECORD | | | |
| TIME | VOLUME | TEMP. | pН | COND. |
| | REMOVED | F° | | XIOOO |
| 1022 | 1 Bailer | 63.5 | 7.15 | 6.13 |
| 1036 . | #4091/ | 69.4 | 7.37 | 5.51 |
| 1032 | | 692 | 7,40 | 5.49 |
| 10 00 | | | | |
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| TENIAL VOLUME PURGED 4/14/ |
|-------------------------------------|
| FINAL VOLUME I CROED |
| TIME SAMPLED は25 |
| SAMPLE ID. RS 5 |
| SAME DE D. |
| SAMPLE CONTAINERS 2/40cc VOR 5 |
| ANALYSIS TO BE RUN TPHE BTEX /MTRE |
| LABORATORY NSE |
| NOTES: 1st Briler Clera STRENG OTER |
| NUTES: 1- DAILER CIENT |
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| SITE DP 793 | DATE . | ¥ | _ | 1E 1049 | 7 |
|---|-----------|-----------|--------|----------|----------|
| WELL A-/ | SAMPL | ED BY. 15 | BROADW | RM | |
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | U | <u></u> |
| WELL ELEVAT | ION | | | | |
| PRODUCT THIC | CKNESS | | | | |
| DEPTH TO WAT | TER | 134 | DTB | 16.92 | |
| FLUID ELEVAT | YON | | | | |
| RAILER TYPE | DISNOSABI | 'e Briler | | | |
| PUMP | David Pit | tman | | <u> </u> | <u>,</u> |

| | WELL PU | PGING R | ECORD | |
|-------|-------------------|---------|--|-------|
| TIME | VOLUME REMOVED | TEMP. | pH | COND. |
| 1047 | 1 Bailer | 66,1 | 694 | 1.78 |
| 10.63 | 33911 | 67.7 | 6.93 | 1.76 |
| 10.55 | , , | 66.5 | 6.91 | 1.57 |
| 1057 | 1 | 65.7 | 7.33 | 1.5/ |
| 1059 | , | 656 | 7.31 | 1.50 |
| | | | | |
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| 1 | _ \ | | <u>. </u> | |

| FINAL VOLUME PURGED 36 gal |
|------------------------------------|
| TIME SAMPLED 1166 |
| CAMPIE ID R/ |
| SAMPLE CONTAINERS 2/40cc VOR'S |
| ANALYSIS TO BE RUN TPHG BTEX /MTRE |
| LABORATORY NSE |
| NOTES: 1 ST BAILER CIEAR No OCOR |
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| SITE DP 793 | DATE | 2-23-90 | TIM | | MA |
|-------------|----------|-----------|--------|----------|----|
| WELL RSD | SAMPI | ĽĚĎ BY. | BROADW | RM | |
| | | | | | |
| WELL ELEVAT | ION | | | | |
| PRODUCT THI | CKNESS | | | <u> </u> | |
| DEPTH TO WA | TER | 6.7 | DTB | 7.0 | |
| FLUID ELEVA | | | | | |
| BAILER TYPE | DisposAL | le Briler | | | |
| PUMP | David P. | thman | | | |

| WELL PURGING RECORD | | | | | | | | |
|---------------------|----------|---------|------|-------|--|--|--|--|
| TIME | VOLUME | TEMP. | pН | COND. | | | | |
| | REMOVED | F° | | XIOOO | | | | |
| 1120 | 1 Bailer | 66.2 | 7.30 | 5.68 | | | | |
| 1124. | 11: 91/ | (5,3 | 7/2 | 6.16 | | | | |
| | , , | 62.7 | 7.15 | 6.10 | | | | |
| 1126 | / | (i, 5 | 7./7 | 591 | | | | |
| 1128 | / | 61.3 | 7.17 | 5.91 | | | | |
| 1/30 | <u>'</u> | (3,7,7) | | | | | | |
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| FINAL VOLUME PURGED /3 34/ |
|-------------------------------------|
| TIME SAMPLED // 3.2 |
| SAMPLE ID. RS 7 |
| SAMPLE CONTAINERS 2/40cc VOR'S |
| ANALYSIS TO BE RUN TPHG BTEX /MTRE |
| ILABORATORY NSE |
| NOTES: 1st Briler Clear STRANG OVER |
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APPENDIX C

CABORATORY RESUCTS



Lab Number:

99-0274

Client:

Western Geo-Engineers

Project:

DP 793 / 4035 Park Blvd

Date Reported: 03/08/99

Gasoline, BTEX and MTBE by Methods 8015M and 8020

| Analyte N | Method | Result | Unit | Date Sampled | Date Analyzed |
|----------------|-------------|----------|------|--------------|---------------|
| Sample: 99-027 | | | | 02/23/99 | WATER |
| asoline | 8015M | ND | | | 03/05/99 |
| Benzene | 8020 | ND | | | |
| Ethylbenzene | 8020 | ND | | | |
| MTBE | 8020 | ND | | | |
| Toluene | 8020 | 5 | ug/L | | |
| Xylenes | 8020 | ND | | | |
| Sample: 99-02 | 74-02 Clien | t ID: R1 | | 02/23/99 | WATER |
| Gasoline | 8015M | 60 | ug/L | | 03/05/99 |
| Benzene | 8020 | 16 | ug/L | | |
| Ethylbenzene | 8020 | 5.6 | ug/L | | |
| MTBE | 8020 | ND | | | |
| Toluene | 8020 | 0.6 | ug/L | | |
| Xylenes | 8020 | 1.2 | ug/L | | |
| Sample: 99-02 | 74-03 Clien | t ID: R2 | | 02/23/99 | WATER |
| Gasoline | 8015M | 1100 | ug/L | | 03/05/99 |
| Benzene | 8020 | 310 | ug/L | | |
| Ethylbenzene | 8020 | 2 | ug/L | | |
| MTBE | 8020 | ND | | | |
| Toluene | 8020 | 3 | ug/L | | |
| kylenes | 8020 | 26 | ug/L | | |

Page



Lab Number:

99-0274

Client:

Western Geo-Engineers

Project:

DP 793 / 4035 Park Blvd

Date Reported: 03/08/99

Gasoline, BTEX and MTBE by Methods 8015M and 8020

| Analyte 1 | Method | Result | Unit | Date Sampled | Date Analyzed |
|---------------------|-------------|------------|-------------|--------------|---------------|
| Sample: 99-02 | | it ID: R3 | | 02/23/99 | WATER |
| asoline | 8015M | ND | | | 03/05/99 |
| Benzene | 8020 | ND | | | |
| Ethylbenzene | 8020 | ND | | | |
| MTBE | 8020 | ND | | | |
| Toluene | 8020 | ND | | | |
| Xylenes | 8020 | ND | | | |
| Sample: 99-02 | 74-05 Clier | nt ID: RS2 | | 02/23/99 | WATER |
| Gasoline | 8015M | ND | | | 03/05/99 |
| Benzene | 8020 | ND | | | |
| Ethylbenzene | 8020 | ND | | | |
| MTBE | 8020 | ND | | | |
| Toluene | 8020 | ND | | | |
| Xylenes | 8020 | ND | | | · |
| Sample: 99-02 | 74-06 Clie | nt ID: RS5 | | 02/23/99 | WATER |
| | 8015M | 19000 | ug/L | | 03/05/99 |
| Gasoline Benzene | 8020 | 1900 | ug/L | | |
| Ethylbenzene | | 2500 | ug/L | | |
| MTBE | 8020 | *ND<25 | ug/L | | |
| Toluene | 8020 | 11000 | ug/L | | |
| vlenes | 8020 | 4800 | ug/L | | |
| | | | | | |



Lab Number:

99-0274

Client:

Western Geo-Engineers

Project:

DP 793 / 4035 Park Blvd

Date Reported: 03/08/99

Gasoline, BTEX and MTBE by Methods 8015M and 8020

| Analyte I | Method 74-07 Clien | Result t ID: RS6 | Unit | Date Sampled 02/23/99 | Date Analyzed WATER 03/05/99 |
|--|---|--|--|--------------------------|------------------------------|
| Benzene Ethylbenzene MTBE Toluene Xylenes | 8015M 8020 8020 8020 8020 8020 | 1000 3.4 1.6 ND 3.2 7.3 | ug/L ug/L ug/L ug/L ug/L | | 03/03/99 |
| Sample: 99-02 | 74-08 Clien | t ID: RS7 | | 02/23/99 | WATER |
| Gasoline Benzene Ethylbenzene MTBE Toluene Xylenes | 8015M 8020 8020 8020 8020 8020 | 83000 6500 1200 ND<10 9900 7000 | ug/L ug/L ug/L ug/L ug/L ug/L | | 03/05/99 |



Quality Control/Quality Assurance

Lab Number:

99-0274

Client:

Western Geo-Engineers

Project:

DP 793 / 4035 Park Blvd

Date Reported: 03/08/99

Gasoline, BTEX and MTBE by Methods 8015M and 8020

| | | | | MS/MSD | |
|--------|---------------------------------------|--|---|--|---|
| Method | Reporting Limit | Unit | Blank | Recovery | RPD |
| 8015M | 50 | ug/L | ND | 97 | 2 |
| | 0.5 | ug/L | ND | 96 | 2 |
| | | ug/L | ND | 102 | 2 |
| | 0.5 | ug/L | ND | 100 | 1 |
| | 1.0 | ug/L | ND | 101 | 2 |
| 8020 | 0.5 | ug/L | ND | 95 | 4 |
| | 8015M 8020 8020 8020 8020 | 8015M 50 8020 0.5 8020 0.5 8020 0.5 8020 1.0 | Method Limit Unit 8015M 50 ug/L 8020 0.5 ug/L 8020 0.5 ug/L 8020 0.5 ug/L 8020 1.0 ug/L | Method Limit Unit Blank 8015M 50 ug/L ND 8020 0.5 ug/L ND 8020 0.5 ug/L ND 8020 0.5 ug/L ND 8020 1.0 ug/L ND | Method Limit Unit Blank Recovery 8015M 50 ug/L ND 97 8020 0.5 ug/L ND 96 8020 0.5 ug/L ND 102 8020 0.5 ug/L ND 100 8020 1.0 ug/L ND 101 |

ELAP Certificate NO:1753

Reviewed and Approved

John A. Murphy, Laboratory pirector

P. O. Box 5624 · South San Francisco, California 94083 · 650-588-2838 FAX 588-1950

Page 4 of 4



North State Environmental Analytical Laboratory 90 South Spruce Avenue, Suite W, South San Francisco, CA 94080

| Chain of Custody / R | Request for Analysis |
|----------------------|----------------------|
| ab Job No.: | Pageof |

99.0274

Phone: (650) 266-4563 Fax: (650) 266-4560

| Client: WEGE | | | Billing to: SAME | | Phone: 5x, -1/3-5300 | | | Turnaround Time | |
|--|----------------|-------------------------|------------------|-------------------------|--|----------------|-----------|-----------------|---------------------------------|
| Mailing Address: | ` | | Billing t | Billing to: SAME | | | 0-662-027 | 73 | |
| Western Geo Eugineers 1386 6. Bermer ST Woodland, CA 95776 | | | | | PO# / Billing Reference: | | e: Da | ate: 2-23-99 | |
| - 1386 E. BERM Woodland CA | 9577 <i>6</i> | , | | | | | | Sa | ate: 223-99 ampler: Brendung |
| Project / Site Address: | | | | Analysi | is / / | \overline{I} | | / | 7 / 0 |
| DP 793 | 4035 PA | rak Blud | | Requested | / N / 26 | | | / / | / / |
| Sample ID | Sample Type | Container No. / Type | Pres. | Sampling Date / Time | and plant | | | | Comments / Hazards |
| Μωι | H20 | 2/VORS | HCL | 2-23-99 8:49 | | | | | |
| Ri | | \. | | 1100 | | | | | |
| R2 | | | | 1016 | | | | | |
| R3 | | | | 1116 | | | | | |
| R52 | | | | 0913 | | | | | |
| R55 | | | | 1043 | | | | | |
| RS6 | | | | 0955 | | | | | |
| £57 | | 1 | | 1/32 | | | | <u> </u> | |
| | | | | | | | | <u> </u> | |
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| | | | | | <u> </u> | | | | |
| Relinquished by: | do 21 | Sandwan | | Date: 1-25-19Time: | 100 Recei | ved by: (| Her k | Alter | Lab Comments |
| Relinquished by: | ···· | | | Date: Time: | Recei | ved by: | | | |
| Relinquished by: | | | | Date: Time: | Recei | ved by: | | | |