

Alameda County

OCT 31 2002

Environmental Health

THIRD QUARTER 2002
GROUNDWATER SAMPLING REPORT/UPDATE STATUS
WITH
WASTEWATER DISCHARGE REPORT (APPENDIX E)

AT

FORMER DESERT SITE DP 793
4035 PARK BLVD.
OAKLAND, CA.

FOR

DESERT PETROLEUM

September 3, 2002

BY

-WEGE-
WESTERN GEO-ENGINEERS
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Mr. Bill Thompson
Desert Petroleum
P.O. Box 1601
Oxnard, California 93032
(805) 644-6784 FAX (805) 654-0720

September 3, 2002

Dear Mr. Thompson:

The following report documents the third quarter 2002 sampling at DP793, 4035 Park Blvd., Oakland, California.

1.0 SITE LOCATION AND NUMBERS

Former Desert Petroleum #793 is a non-active service station (USTs and associated piping removed June 23, 1994), 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).

East Bay Municipal Utility District - Sewer Discharge Permit #50435501
Alameda County Local Oversight STID 1248
San Francisco Bay Regional Board (Region 2) Case # 01-0170
Facility/Leak Site ID# T0600100158

2.0 SITE INVESTIGATION/REMEDIATION CHRONOLOGY

- November 30, 1989 Alameda County Health Department (Mr. Ariu Levi) notified Desert Petroleum that gasoline was trickling into a sewer on Brighton Avenue through a crack in the bottom of the sewer access. Desert Petroleum's area manager sent to site to reconstruct and audit tank inventories and sales records. The audit indicated overages on all tanks.
- December 1, 1989 Desert Petroleum contacted the station tenant, Mr. Jason Gopad, and advised him to test the fuel tanks and associated piping.
- December 5, 1989 The retail fueling facility was closed.
- December 6, 1989 Mr. Gopad had the underground storage tanks tested. The test results were inconclusive.
- December 7, 1989 All fuel was removed from the underground storage tanks. The product lines were tested by Walton Engineering. The regular leaded and super unleaded lines passed. The regular unleaded line failed. A 1/2 inch hole in the 2 inch unleaded supply line was located beneath the eastern pump island. An ultrasound investigation was conducted to determine the location of the onsite sewer line. An onsite soil gas survey was conducted and indicated

contamination associated with the pump islands and the sewer line on the western edge of the property.

December 8, 1989 Desert Petroleum submitted Unauthorized Release Report, drilling permits for site assessment obtained from Alameda County Flood Control and Water Conservation District, Zone 7, Underground Service Alert was notified.

December 11, 1989 Onsite drilling/sampling and well installation initiated. Sample borings RS-1, RS-2, RS-3, RS-5 and RS-4. Groundwater monitoring wells installed into borings RS-1, RS-5, and RS-6. Vapor extraction well installed into boring RS-2.

December 12, 1989 Encroachment permit secured from the City of Oakland for assessment work in Brighton Avenue. Sample boring RS-4 drilled and sampled just east of the sewer access in Brighton Avenue to the 10 foot depth.

December 13, 1989 The area northeast of the sewer access was excavated with a backhoe. Gasoline appeared to be seeping from the backfill around the sewer line. A water supply line was inadvertently broke (USA markings incorrectly marked the location of this line). A vacuum truck was used to pump out the water/product from the excavation. Approximately 7,200 gallons of water/gasoline was manifested and sent to H & H Shipyard for treatment and disposal. The water line was repaired, perforated 4 inch PVC pipe was placed vertically into the excavation and the excavation backfilled with pea gravel from approximately the 8 foot depth to subgrade, well RS-7. A portable vapor extraction unit connected to the sewer and RS-7 (operated during daylight hours).

December 15, 1989 RSI S.A.V.E. vapor extraction system installed and connected to onsite wells RS-1, RS-2, RS-5 and RS-6. Operated continuous for one week, then during daylight hours thereafter due to noise disturbance of neighbors. Length of vapor extraction and amounts of hydrocarbons removed not documented.

July 24, 1990 Soil boring/sampling investigation near the sewer lateral in residential backyard 1227 Hampel Avenue.

August 21, 1990 Soil boring/sampling investigations near the sewer lateral in residential backyards 4006 Brighton Avenue and 4010/4012 Brighton Avenue.

December 1990 Commence quarterly groundwater monitoring.

September 8, 1993 Levine - Fricke, conduct soil boring/sampling investigation at residences 4003 Park Blvd. and 4006 Brighton Avenue. Construct monitor well at 4003 Park Blvd for property owner of 4003 Park Blvd (not a part of 4035 Park Blvd. site assessment/investigation).

June 23, 1994 Removal of all USTs and associated piping from 4035 Park Blvd.

August 14, 1995 Over-excavate UST and dispenser areas at 4035 Park Blvd, 1700 cubic yards of non-hazardous soil transported to and disposed at Forward Landfill, Stockton, California. Installed excavation well R3 (6 inch slotted PVC to 15 feet below surface) south of building, backfill excavation to 5 1/2 feet below surface with 1/4 inch pea gravel. Excavation removed monitor well RS-1.

August 16, 1995 Excavate and removed hydraulic hoists from station building.

August 31, 1995 Exploratory excavation at waste oil UST area, north of building and are west of building to 17 feet below surface. Installed excavation wells R1 in west excavation and R2 in north excavation.

September 5, 1995	Drill/sample and installed replacement well for RS-1 (MW-1).
May 2, 1996	Soil Probe Survey and soil sample borings along sewer route from 4035 Park Blvd. through back yards, to Brighton Avenue. Temporary casing set in hand augered borings BH-1, BH-2, BH-3, BH-4 and BH-5. Conducted slug tests on BH-1, BH-2, BH-3 and BH-5. Not enough water entry into BH-4 to conduct test. The following hydraulic conductivities (k) were calculated; BH-1 = 0.15 ft/day, BH-2 = 2.9 ft/day, BH-3 = 0.11 ft/day, and BH-5 = 4.8 ft/day.
January 17, 1997	Soil Probe Survey Brighton Avenue
August 12, 1999	Installed receptor trench, Brighton Avenue. 148 cubic yards non hazardous gasoline contaminated soil transported and disposed of at Vacaville Landfill, Vacaville, California. Installed wells RS-8, RS-9 and RS-10.
October 7, 1999	Pumped 19,451 gallons of gasoline contaminated groundwater from receptor trench, stored in above ground 22,000 gallon Baker tank.
January 24, 2000	Obtained sewer discharge permit from East Bay Municipal Utility District, started discharge of water stored in Baker tank to city sewer.
May 4, 2000	Started weekly purging of receptor trench well T1 (4 hours once per week). Discharged purged water through water carbon and then to sewer.
February 15, 2001	Set submersible pump in RS-5 to pump continuous, continued once a week purging of receptor well T1 (46,121 gallons removed from receptor trench well).
July 19, 2001	Cease pumping of RS-5 and weekly purging of T1; 62,511 gallons removed from T1 and 78,919 gallons removed from RS-5 (total 141,430 gallons of gasoline contaminated groundwater treated and disposed to sewer).
March 21, 2002	Resumed pumping at RS-5.
August 6, 2002	246,849 gallons of gasoline contaminated groundwater pumped, treated and disposed to sewer.

3.0 LOCAL GEOLOGY

3.1 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.

3.2 Stratigraphy

Station Property

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, see Figure 7.

Backyard Sewer Lateral Route

Assessments performed along the sewer lateral as it leaves the site and routes through the residential area towards Brighton Avenue show the subsurface to consist of fill from a couple of inches thick to two feet thick. Beneath the fill is a sequence of clay formations that vary from light brown to dark gray to approximately the 6 foot depth. Silty clay then extends to approximately the 14-foot depth. Beneath the silty clay is sand with occasional gravel. This sand is 11 feet thick at RS5 and is underlain by silty clay, see Figure 7.

Brighton Avenue

Construction of the receptor trench along the eastern curb area of Brighton Avenue revealed two separate sequences of lithology. North of the storm drain catch basin the sequence consists of; clay to the four foot depth, silty clay to the seven foot depth, fine silty sand to the 9 foot depth, medium sand to the 10 foot depth, silty clay to the 11 ½ foot depth, gravel to the 12 foot depth underlain by clay to the 16 foot depth. South of the storm catch basin is a sequence of silty clays and clays to depth, see Figure 6.

Figure 8 is a cross sectional view from the Station to downgradient well RS-9 at Brighton Avenue. Figure 6 and Figure 8 show a sandier sequence of sediments north of the storm water catch basin at Brighton Avenue, indicating a facies change or a fault remnant striking east/west near the storm drain catch basin.

4.0 COLLECTION AND ANALYSIS OF GROUNDWATER SAMPLES

Groundwater samples were collected on August 6, 2002. Samples were analyzed for Total Petroleum Hydrocarbons as gasoline, Benzene, Toluene, Ethylbenzene, Xylenes and Methyl tert-Butyl Alcohol using EPA method 8260B, see Table 1. Figure 3 shows the positions of the groundwater monitoring wells, the receptor trench and previous sample locations.

4.1 Depth to Water Measurements

On August 6, 2002 depth to water was measured at each well using a product/water interface probe. Measurements are referenced to the 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 wells through August 6, 2002.

5.0 RESULTS OF QUARTERLY GROUNDWATER MONITORING

5.1 *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 monitor wells on August 6, 2002, prior to purging the wells for sampling, see Table 1 and Appendix A. On February 15, 2001 submersible pump was placed into onsite well RS-5 to try and capture contaminated groundwater beneath the site and adjoining properties. The pump rate was set at approximately 2 gpm. The pump was removed from RS-5 on July 19, 2001. After evaluation of the effects the pumping had on remediating the site the pump was placed back into RS-5 on March 21, 2002. As shown on groundwater elevation chart generated for each well, pumping from RS5 lowered the water levels in RS-8 and RS-10, see Appendix B. Table 1 shows the groundwater elevations for the wells during the assessment of this site.

The current flow direction is northwest to west. The hydraulic gradient averages 0.084 feet/linear foot downgradient of RS-10 to the receptor trench well T1, see Figure 4. The present flow direction and hydraulic gradient are consistent with previous determinations by WEGE. Also evident on Figure 4 is the cone of influence out to RS8, generating at RS5 as pumping from this well has resumed. For reference areas that have been documented to contain contaminated soils (TPHg > 10 mg/Kg) have been shaded yellow.

5.2 *Results of Certified Analysis of Groundwater Samples*

The results of the certified analyses of groundwater samples collected on August 6, 2002 are shown in Table 1.

TPH-G concentrations in water samples from the eight monitor wells, the receptor trench well and three recovery wells ranged from 28000 ug/L at trench well T1, to below laboratory lower detection limits of 50 ug/L in wells MW1, RS2, RS5, RS10, R1 and R3 respectively.

Benzene concentrations ranged from a maximum of 5500 ug/L in T1 to below the laboratory lower detection limits (0.5 ug/L) at wells MW1, RS2, RS5, RS6, RS10, R1 and R3, see Appendix C - Laboratory Report.

Analysis results for Oxygenant Methyl-t-Butyl Ether (MtBE) was below the laboratory lower detection limit in wells MW1, RS2, RS5, RS7, RS10, R1, R2, and R3. The wells located within or near Brighton Street, RS9 and the trench well T1, contained 3.1 and 32 ug/L MtBE respectively and onsite well RS6 contained 3 ug/L MtBE. RS9 and T1 may indicate that the MtBE source(s) maybe the cars parked along Brighton Street. 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) were confirmed with EPA Method 8260. These analytes were below laboratory lower detection limits.

Free Phase Floating Product was discovered in well RS8, 0.04 feet in thickness, yellow in color. Since all product storage and dispensing systems have been removed from the site (June 1994), it is

thought that the product found in RS8, is residual from the November 1989 release and groundwater pumping at RS-5 is retrieving this residual product.

Figure 5 (May 7, 2002) shows the lateral distribution of the hydrocarbon plume with benzene distinction in groundwater during pumping from RS-5.

TPHg - Figure 5

Total Petroleum Hydrocarbons, gasoline range has a laboratory lower detection limit (LLDL) of 50 ug/L, was detected in wells R2, RS6, RS7, RS8 (floating product), RS9, and T1 ranging from a low of 130 ug/L at RS6 to a high of 28000 ug/L at T1 and floating product at RS8.

Benzene - Figure 5

Benzene has a LDL of 0.5 ug/L. The recommended CPHG (California Public Health Goal) for Benzene is 1 ug/L. Benzene was detected in wells R2, RS7, RS8 (floating product), RS9 and T1 ranging from a low of 29 ug/L at RS9 to a high of 5500 ug/L at T1 and floating product at RS8.

Toluene

Toluene has a LDL of 0.5 ug/L. The recommended CPHG for toluene is 150 ug/L. Toluene was detected in wells R2, RS7, RS8 (floating product), RS9, RS10 and T1, ranging from a low of 0.7 ug/L at well RS10 to a high of 240 ug/L at well T1 and floating product at well RS8.

Ethylbenzene

Ethylbenzene has a LDL of 0.5 ug/L. The recommended CPHG for Ethylbenzene is 300 ug/L. Ethylbenzene was detected in wells R2, RS7, RS8 (floating product), RS9 and T1, ranging from a low of 2.3 ug/L at well RS9 to a high of 1300 ug/L at well T1 and floating product at RS8.

Xylenes

Xylenes have a LDL of 0.5 ug/L. The recommended CPHG for Xylenes is 1800 ug/L. Xylenes were detected in wells R2, RS7, RS8 (floating product), RS9, RS10 and T1, ranging from a low of 1.6 ug/L at well R10 to a high of 2600 ug/L at well T1 and floating product at RS8.

MtBE

MtBE has a LDL of 0.5 ug/L. The recommended PHG for MTBE is 13 ug/L. MtBE was detected in wells RS6, RS9 and T1, ranging from a low of 3 ug/L at well RS6 to a high of 32 ug/L at well T1, see Table 1 and Appendix C - Laboratory Report.

Appendix D contains charts developed for wells MW1, RS2, RS5, RS6, RS7, RS8, RS9, RS10 and trench well T1 showing TPHg & Benzene concentration with time, with the exception of RS8 and T1 all wells display a reduction in concentrations with time for both TPHg and Benzene through May 7, 2002 sampling.

6.0 WEEKLY PURGING OF RECEPTOR TRENCH

Commencing on May 4, 2000, weekly pumping of the receptor trench has been performed for approximately 4 hours per week, see Table 3. During purging the depth to water within the trench is lowered an average of one feet. Immediately after purging ceases, the water level in the trench recovers to its original depth. Weekly purging of the receptor trench was suspended on July 19, 2001 at the request of Desert Petroleum. 62,511 gallons of contaminated groundwater had been removed from the trench, processed through two, in series, activated carbon water scrubs and discharged to the sanitary sewer, see Table 2.

7.0 PUMPING ON-SITE WELL RS-5

On February 15, 2001 a submersible pump with a pump bypass was placed into RS-5. The pump rate was adjusted to 1.5 gpm and allowed to continuously pump from RS-5 for one week. 3223 gallons were pumped from RS-5 through the two in series water carbon units and discharged to the sewer. On February 22, 2001 the pump was inspected and showed a slimy growth covering the pump and discharge line that was below the water level. The pump was cleaned and placed back into RS-5 and continued to discharge from RS-5 through the water carbon units to sewer until July 19, 2001. On July 19, 2001 Desert Petroleum requested suspension of further pumping at the site. The pump was removed and the site secured. From February 15 through July 19, 2001, 78,919 gallons of gasoline contaminated groundwater was recovered from RS-5 and treated through carbon before being discharged to the sewer. Pumping from RS5 was resumed on March 21, 2002. As of August 6, 2002 183,722 gallons of groundwater have been pumped from RS5 and treated through two in series water carbon units prior to being discharge to sanitary sewer, see Table 2.

The pumping from RS-5 lowered the groundwater at this well by at least 15 feet, when compared to the previous water measurements. This created a cone of influence out to offsite wells RS-8 and RS-10, see Chart - Appendix B. Recirculating the pumped groundwater, before it leaves the well (RS-5) has increased the dissolved oxygen in RS-5 from 0.7 mg/L (August 26, 1999) to 3.1 mg/L (March 8, 2001). This should aid in the biodegradation of the hydrocarbon plume, see Table 4.

8.0 BIODEGRADATION OF HYDROCARBONS

During the December 18, 2001 sampling of wells, field measurements were obtained to determine the availability of electron receptors to aid in the natural attenuation of the hydrocarbon plume. Along with pH, temperature and electrical conductivity, dissolved oxygen, nitrate, sulfate and ferrous iron were also measured. Water samples were obtained after the wells were purged and allowed to recovery and analyzed in the filed using a Hach DR/2000 Spectrophotometer. The following methods were used:

Dissolved Oxygen, high range (0 to 13 mg/L O₂) - Method 8166 for water and wastewater.
Nitrate, high range (0 to 30 mg/L NO₃) - Method 8039 for water, wastewater and seawater.
Sulfate, (0 to 70 mg/L SO₄) - Method 8051 for water and wastewater.
Ferrous Iron, (0 to 3.00 mg/L Fe₂) - Method 8146 for water, wastewater and seawater.

Table 4 represents the results of electron acceptor field analysis obtained December 18, 2001 compared to results obtained August 26, 1999.

8.1 Dissolved Oxygen

Readings for dissolved oxygen obtained on August 26, 1999, prior to pumping the receptor trench and RS5, indicated two areas of oxygen depletion (<1 mg/L), the entire north half of the site (4035 Park Avenue) at wells RS2, RS5, RS6, R1 and R2 and the area excavated for the receptor trench along the eastern curb of Brighton Avenue, well RS-7 and T1. Readings obtained during the December 18, 2001 monitoring round show that dissolved oxygen has increased substantially and even exceeds 5 mg/L in the over-excavated area on site. The lowest Dissolved Oxygen level encountered is associated with well RS5 at 1.4 mg/L, compared to 0.7 mg/L at RS5 in August 1999. All other dissolved oxygen measurements were at 2.5 mg/L or greater, see Table 4.

8.2 Sulfate

Comparing sulfate measurements obtained in August 1999 to the December 2001 measurements, the sulfate has been depleted at the receptor trench and beneath Brighton Avenue, but is being replenished at well location RS8.

8.3 Nitrate

Comparing nitrate measurements obtained in August 1999 to the December 2001 measurements, the nitrate is being replenished all along the petroleum plume area.

8.4 Ferrous Iron

The measurements obtained in August 1999 compared to the December 2001 measurements, indicate that ferrous iron is oxidized, as the site becomes more aerobic.

9.0 SUMMARY

Since the installation and weekly purging of the receptor trench (T1) the TPHg concentrations in down gradient wells RS-7 and RS-9 have decreased, see Table 1 with charts RS-7. The weekly purging of the receptor trench was limited to a maximum daily discharge of 5 gpm, thus removing approximately 1200 to 2000 gallons per week. Although this does lower the water level in the

trench, after pumping has ceased the water level rebounds to its original depth allowing for the gradient migration of TPHg contaminated groundwater to continue.

Pumping from RS-5 has shown to create a cone of influence off-site downgradient out to RS-8 and RS-10. Pumping has increased the dissolved oxygen in RS-5 and hydrocarbon concentrations have declined in R1, R3, RS-5, and RS-10. 0.04 feet of floating product (yellow gasoline) discovered during the August 6, 2002 sampling round could indicate that the pumping at RS-5 is capturing residual free phase product in that area.

The lowest hydrocarbon concentrations were observed while the weekly pumping of the trench well and the continuous pumping of RS5 was occurring, May 31, 2001. The most recent sampling, August 6, 2002 shows a continue decrease in hydrocarbons upgradient, at the site, but an increase in hydrocarbon concentrations associated with the receptor trench at Brighton Avenue excavation well T1 and well RS8. The most down gradient well, RS9 contains low levels of gasoline range hydrocarbons; 380 ug/L TPHg, 29 ug/L Benzene, 1.2 ug/L Toluene, 2.3 ug/L Ethylbenzene, 2.9 ug/L Xylenes and 3.1 ug/L MtBE, indicating a barrier for lateral migration along Brighton Avenue.

Previous sampling, September 2, 1999, showed that aerobic bacteria (hydrocarbon degraders) exist in the groundwater associated with the hydrocarbon plume. A workplan to augment the groundwater with oxygen (air sparging) and nutrients (phosphate and ammonium sulfate) dated August 29, 2000 was presented with the August 29, 2000, Third Quarter 2000 report. This workplan along with the May 31, 2001 conditions were discussed during a meeting at Alameda County Health that involved Mr. Thompson, Desert Petroleum, Mr. Seery, Alameda County Health and Mr. Converse, Western Geo-Engineers on November 13, 2001. The meeting concluded that nutrient augmentation was not necessary at this time, but enhanced dissolved oxygen was needed. Due to neighborhood concerns, i.e. residential homes and apartments, air sparging and/or using a mechanical delivery device would create too much noise and a more passive oxygen delivery system was warranted, i.e. hydrogen peroxide or Oxygen Release Compound (ORC). An amended workplan was presented in Appendix G of the 4th Quarater 2001 report, dated January 7, 2002 and suggested that ORC would be the most beneficial means of enhancing dissolved oxygen in the groundwater plume. Western Geo-Engineers then requested Regenesis Inc. to perform a basic model using ORC to determine how to apply and the amount needed. The Regenesis model indicated that a one-time application (would last approximately one year) of approximately 9,690 pounds of ORC would be needed, at a cost of \$77,520.00 for materials, which does not include installation costs. Upon receipt of the Regenesis model, WEGE projected how much hydrogen peroxide would be necessary to increase the dissolved oxygen in the plume from 2 mg/L to 8 mg/L. This simple model indicated that 18 gallons of 35% solution hydrogen peroxide would be necessary per application, at a cost of \$1,160.00 per monthly application or \$13,920.00 for one year.

Further communications from Mr. Scott Seery with Mr. Converse occurred during the week of February 25 - March 1, 2002. Mr. Seery suggested another meeting to discuss remediation options prior to approving the amended workplan presented with the January 7, 2002 report. In a phone conversation between Mr. Converse and Mr. Seery on August 12, 2002, Mr Seery requested that the peroxide treatment not be performed until further review of the site by Alameda County Health.

10.0 LIMITATIONS

This report is based upon the following:

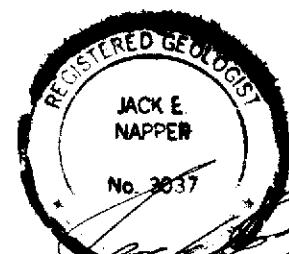
- A. The observations of field personnel.
- B. The results of laboratory analyses performed by a state certified laboratory.
- C. Referenced documents.
- D. Our understanding of the regulations of the State of California, Alameda County and the City of Oakland.
- E. Changes in groundwater conditions 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



Jack E. Napper
Ca. Reg. Geologist #3037

cc: Mr. Scott O. Seery, Alameda County Health (510) 567-6783
Mr. Leroy Griffin, Oakland Fire Dept.

TABLE 1

GROUNDWATER ELEVATIONS AND CERTIFIED ANALYTICAL LABORATORY RESULTS FROM WATER SAMPLES

DESERT PETROLEUM, INC. SITE #793

4035 PARK BOULEVARD, OAKLAND, CALIFORNIA

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-1	12/14/89	228.15	24.25	203.9	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	12	26	
RS-1	9/91				4100	730	7.6	5.1	24	
RS-1	12/91				8300	950	160	71	190	
RS-1	11/9/92	228.15	17.05	211.1	1700	730	9.6	16	14	
RS-1	4/7/94	228.15	13	215.15	860	84	12	16	110	
RS-1	6/19/94	228.15	13.37	214.78	1400	150	12	52	87	
RS-1	9/17/94	228.15	16.33	211.82	310	30	1.8	2.8	3.9	
RS-1	3/12/95	228.15	4.66	223.49	ND	ND	ND	ND	ND	
DESTROYED BY OVER-EXCAVATION OF UST-DISPENSER AREAS (8/14/95										
REPLACED WITH MW-1 9/5/95.										
MW-1	10/4/95	229.5	12.38	217.12	ND	ND	ND	ND	ND	
MW-1	12/21/95	229.5	13.40	216.1	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	03/27/96	229.5	5.53	223.97	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
MW-1	06/11/96	229.5	9.02	220.48	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
MW-1	09/04/96	229.5	11.84	217.66	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
MW-1	12/11/96	229.5	12.98	216.52	< 50	< 0.5	0.9	< 0.5	< 1	< 0.5
MW-1	2/21/97	229.5	9.50	220	< 50	< 0.5	0.9	< 0.5	< 1	< 0.5
MW-1	5/28/97	229.5	11.18	218.32	< 50	3	3	< 0.5	< 1	< 0.5
MW-1	9/2/97	229.5	13.00	216.5	< 50	5	< 0.5	< 0.5	< 1	< 0.5
MW-1	11/24/97	229.5	14.12	215.38	< 50	5	< 0.5	< 0.5	< 1	< 0.5
MW-1	2/25/98	229.5	6.41	223.09	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-1	7/8/98	229.5	7.28	222.22	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-1	9/16/98	229.5	10.96	218.54	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-1	11/24/98	229.5	12.24	217.26	52	2.3	5.2	< 0.5	5.4	11
MW-1	2/23/99	229.5	7.14	222.36	< 50	< 0.5	5	< 0.5	< 1	< 0.5
MW-1	5/5/99	229.5	7.00	222.5	< 50	2	< 0.5	< 0.5	< 1	8
MW-1****	8/26/99	229.5	11.41	218.09	< 50	4.1	< 0.5	< 0.5	< 1	< 1
MW-1	11/10/99	229.5	13.27	216.23	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-1	2/9/00	229.5	13.76	215.74	< 50	< 0.5	< 0.5	0.5	< 1	0.5
MW-1	6/30/00	229.5	10.63	218.87	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-1	8/8/00	229.5	11.77	217.73	62	1	2	< 0.5	2	< 0.5
MW-1	11/16/00	229.5	13.33	216.17	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-1	3/8/01	229.5	12.30	217.2	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	5/31/01	229.5	11.88	217.62	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	12/18/01	229.5	13.74	215.76	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	2/19/02	229.5	14.42	215.08	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	5/7/02	229.5	10.78	218.72	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-1	8/6/02	229.5	12.70	216.8	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL) (CALIFORNIA PUBLIC HEALTH GOAL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)
RS-2	12/14/89	227.39								
RS-2	6/19/94	227.39	10.89	216.50						
RS-2	3/12/95	227.39	5.26	222.13	ND	ND	ND	ND	ND	ND
RS-2	10/4/95	227.39	15.05	212.34	ND	ND	ND	ND	ND	ND
RS-2	12/21/95	227.39	9.95	217.44	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	03/27/96	227.39	6.28	221.11	< 50	< 0.5	< 0.5	< 0.5	< 2	< 50
RS-2	06/11/96	227.39	8.00	219.39	< 50	1.2	2.8	< 0.5	< 2	< 50
RS-2	09/04/96	227.39	9.89	217.50	< 50	< 0.5	< 0.5	< 0.5	< 2	< 5
RS-2	12/11/96	227.39	8.38	219.01	< 50	< 0.5	< 0.5	< 0.5	< 1	6
RS-2	2/21/97	227.39	5.96	220.43	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	5/28/97	227.39	10.02	217.37	< 50	3	3	< 0.5	< 1	< 0.5
RS-2	9/2/97	227.39	11.46	215.93	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	11/24/97	227.39	10.43	216.96	< 50	< 0.5	1	< 0.5	3	< 0.5
RS-2	2/23/98	227.39	3.57	223.82	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	7/6/98	227.39	8.63	219.56	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
RS-2	9/16/98	227.39	10.60	216.79	< 50	< 0.5	< 0.5	< 0.5	< 1	< 1
RS-2	11/24/98	227.39	13.27	214.12	140	2.8	19	2.6	3.3	15
RS-2	2/23/99	227.39	4.06	223.33	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	5/5/99	227.39	7.70	219.63	< 50	0.7	< 0.5	< 0.5	< 1	6
RS-2****	8/25/99	227.39	11.42	215.97	200	15	23	1.7	23	3*
RS-2	11/10/99	227.39	15.94	211.45	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	2/9/00	227.39	8.91	218.48	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	6/30/00	227.39	9.79	217.60	52	2	< 0.5	< 0.5	< 1	< 0.5
RS-2	8/3/00	227.39	10.71	216.66	60	< 0.5	< 0.5	< 0.5	< 1	< 0.5
RS-2	11/16/00	227.39	10.39	217.00	< 50	< 0.5	< 0.5	< 0.5	< 1	< 0.5
PS-2	3/8/01	227.39	6.62	220.77	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	5/31/01	227.39	10.09	217.30	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	12/18/01	227.39	6.99	220.40	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	2/19/02	227.39	8.08	219.31	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	5/7/02	227.39	9.27	218.12	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
RS-2	8/6/02	227.39	11.38	216.01	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

TABLE 1

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

ID#	(All concentrations in parts per billion [ug/L. ppb]) (AMSL = Above mean sea level)										
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUNWD WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)	
	(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-5	12/14/89	227.61	25.97	201.64	57000	3100	4300	670	3400		
RS-5	2/91	227.61	FLOATING PRODUCT								
RS-5	6/91	227.61	FLOATING PRODUCT								
RS-5	9/91	227.61	FLOATING PRODUCT								
RS-5	12/91	227.61	FLOATING PRODUCT								
RS-5	11/9/92	227.61	20.73	206.88	50000	650	4800	1100	15000		
RS-5	4/7/94	227.61	18.16	209.45	27000	5000	8700	550	2800		
RS-5	6/19/94	227.61	18.11	209.5	20000	2100	5300	470	2500		
RS-5	9/17/94	227.61	19.63	207.98	9300	230	340	110	700		
RS-5	3/12/95	227.61	14.54	213.07	93000	6400	2000	19000	10000		
RS-5	10/4/95	227.61	17.53	210.98	16000	420	2100	320	1800		
RS-5	12/21/95	227.61	17.47	210.14	48000	3500	9200	840	4800	56	
RS-5	03/27/96	227.61	13.51	219.1	68000	4900	18000	1700	11000	< 3000	
RS-5	06/11/96	227.61	14.25	213.36	66000	6300	20000	2100	12000	< 3000	
RS-5	09/04/96	227.61	16.50	211.11	31000	2100	11000	1100	6800	400	
RS-5	12/11/96	227.61	15.83	211.73	85000	7000	21000	1800	8900	570	
RS-5	2/21/97	227.61	13.76	213.85	sh	100000	5000	22000	1700	7300	< 0.5
RS-5	5/28/97	227.61	15.77	211.84	52000	4500	19000	2100	10000	< 0.5	
RS-5	9/2/97	227.61	17.47	210.14	38000	2200	9400	1300	5800	< 0.5	
RS-5	11/24/97	227.61	10.57	209.94	45000	4000	16000	1200	9700	< 0.5	
RS-5	2/25/98	227.61	10.53	217.08	160000	2700	31000	5300	28000	< 0.5	
RS-5	7/8/98	227.61	13.75	213.86	45000	2800	12000	2000	8500	< 10	
RS-5	9/16/98	227.61	15.80	211.81	49000	1400	7500	1700	8600	< 5	
RS-5	11/24/98	227.61	16.64	210.97	89000	5300	15000	2800	13000	< 10	
RS-5	2/23/99	227.61	12.36	215.25	12000	1900	11000	2500	4800	< 25	
RS-5	5/5/99	227.61	12.78	214.83	78000	2000	10000	3000	15000	540	
RS-5***	8/26/99	227.61	16.06	211.55	35000	870	4000	1900	B3DD	< 1	
RS-5	11/10/99	227.61	17.54	210.07	40000	1000	5600	1800	8100	< 0.5	
RS-5	2/9/00	227.61	16.31	211.3	45000	1400	6900	2700	11000	< 0.5	
RS-5	6/30/00	227.61	15.15	212.46	37000	810	5200	2200	9100	< 2.5	
RS-5	8/8/00	227.61	16.10	211.51	14000	330	500	1400	6500	< 0.5	
RS-5	11/16/00	227.61	17.38	210.23	23000	430	2300	1100	4800	< 0.5	
RS-5	3/8/01	227.61	27.72	199.89	11000	360	260	140	1500	2.6	
RS-5	5/31/01	227.61	22.96	204.65	7500	26	11	38	470	< 5	
RS-5	12/18/01	227.61	15.61	312	12000	610	1200	100	1500	< 5	
RS-5	2/19/02	227.61	14.80	212.81	22000	460	1700	680	4000	< 5	
RS-5	5/7/02	227.61	31.77	195.84	700	150	10	19	67	5.2	
RS-5	8/6/02	227.61	31.72	195.84	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	

TABLE 1

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

ID#	DATE SAMPLED	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)								
		WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L) (1)	BENZENE (UG/L) (150)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-6	12/14/89	227.22	22.52	204.7	11000	1400	1700	160	860	
RS-6	2/91	227.22	FLOATING PRODUCT							
RS-6	6/91	227.22			95000	4200	4200	650	3700	
RS-6	9/91	227.22	FLOATING PRODUCT							
RS-6	12/91	227.22			64000	3700	2300	730	4100	
RS-6	11/9/92	227.22	19.43	207.79	19000	1600	710	500	1600	
RS-6	4/7/94	227.22	14.42	212.8	16000	1200	1300	290	1100	
RS-6	6/19/94	227.22	14.45	212.77	23000	1300	2200	590	2200	
RS-6	9/17/94	227.22	19.52	207.7	24000	630	790	250	1100	
RS-6	3/12/95	227.22	8.90	218.32	3200	450	13	82	230	
RS-6	10/4/95	227.22	17.78	209.44	3700	170	250	38	290	
RS-6	12/21/95	227.22	14.98	212.24	3100	120	30	16	150	58
RS-6	03/27/96	227.22	10.00	217.22	6900	180	440	79	360	< 300
RS-6	06/11/96	227.22	12.00	215.22	7400	220	150	30	100	< 1000
RS-6	09/04/96	227.22	15.00	212.22	1400	68	2.6	7.7	9.2	14
RS-6	12/11/96	227.22	12.36	214.86	1800	39	16	10	18	< 0.5
RS-6	2/21/97	227.22	10.00	217.22	2100	71	85	25	40	< 0.5
RS-6	5/28/97	227.22	13.56	213.66	1700	34	12	11	16	< 0.5
RS-6	9/2/97	227.22	16.35	210.87	940	34	71	9	55	< 0.5
RS-6	11/24/97	227.22	15.72	211.5	490	9	6	1	7	< 0.5
RS-6	2/25/98	227.22	6.26	220.96	1400	22	47	5	52	< 0.5
RS-6**	7/8/98	227.22	11.41	215.81	1500	83	9	84	2	< 10
RS-6	7/30/98	227.22			<50	<0.5	<0.5	<0.5	<1	
RS-6	9/16/98	227.22	13.42	213.8	990	23	<0.5	<0.5	<1	<1
RS-6	11/24/98	227.22	15.91	211.31	3400	5.3	<0.5	<0.5	14	< 0.5
RS-6	2/23/99	227.22	7.00	220.22	1000	3.4	3.2	1.6	7.3	< 0.5
RS-6	5/5/99	227.22	10.29	216.93	1100	50	10	80	15	2
RS-6***	8/26/99	227.22	13.72	213.5	690	44	2.5	30	31	< 5
RS-6	11/10/99	227.22	13.90	213.32	1800	2	2	0.9	16	< 0.5
RS-6	2/9/00	227.22	12.77	214.45	410	3	3	4	7	< 0.5
RS-6	6/30/00	227.22	12.69	214.53	660	7	2	5	6	< 0.5
RS-6	8/2/00	227.22	14.72	212.5	560	2	3	2	6	< 0.5
RS-6	11/16/00	227.22	15.28	211.94	560	1	2	1	5	< 0.5
RS-6	3/8/01	227.22	10.10	217.12	2200	<0.5	<0.5	<0.5	<0.5	<0.5
RS-6	5/31/01	227.22	12.96	214.26	630	<0.5	<0.5	<0.5	<0.5	<5
RS-6	12/18/01	227.22	10.88	216.34	56	0.53	<0.5	<0.5	0.56	< 0.5
RS-6	2/19/02	227.22	11.08	216.14	<50	<0.5	<0.5	0.6	<0.5	< 0.5
RS-6	5/7/02	227.22	12.31	214.91	240	<0.5	<0.5	<0.5	<0.5	< 0.5
RS-6	8/6/02	227.22	14.23	212.99	130	<0.5	<0.5	<0.5	<0.5	< 0.5

TABLE 1

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

ID#	DATE SAMPLED	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
		WELL CASING ELEVATION (FEET AMSL) (FEET)	DEPTH TO GROUND WATER ELEVATION (FEET AMSL)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)	
(CALIFORNIA PUBLIC HEALTH GOAL)											
RS-7	12/14/89	195.99									
RS-7	7/90	195.99			5600000	24000	210000	50000	740000		
RS-7	2/91	195.99	FLOATING PRODUCT								
RS-7	5/91	195.99	FLOATING PRODUCT								
RS-7	9/91	195.99	FLOATING PRODUCT								
RS-7	12/91	195.99			270000	11000	22000	2000	13000		
RS-7	11/9/92	195.99	4.62	191.37	81000	12000	16000	1900	13000		
RS-7	4/7/94	195.99	4.03	191.96	74000	16000	16000	1400	8500		
RS-7	6/19/94	195.99	4.07	191.92	83000	22000	19000	1500	9500		
RS-7	9/17/94	195.99	4.05	191.94	270000	13000	15000	2100	1100		
RS-7	3/12/95	195.99	3.72	192.27	35000	5100	560	6300	3600		
RS-7	10/4/95	195.99	4.03	191.96	96000	14000	14000	1300	7000		
RS-7	12/21/95	195.99	3.95	192.04	70000	9300	12000	860	5600	210	
RS-7	03/27/96	195.99	3.80	192.19	64000	8900	14000	1100	8300	< 3000	
RS-7	06/11/96	195.99	3.79	192.2	65000	12000	17000	1600	9700	< 5000	
RS-7	09/04/96	195.99	3.99	192	20000	4900	2100	670	4400	100	
RS-7	12/11/96	195.99	3.78	192.21	17000	4400	7500	570	4600	180	
RS-7	2/21/97	195.99	3.82	192.17	92000	31000	47000	3800	23000	< 0.5	*
RS-7	5/28/97	195.99	3.82	192.17	52000	12000	8200	2000	11000	< 0.5	*
RS-7	9/2/97	195.99	3.96	192.03	28000	6100	2800	950	3800	< 50	*
RS-7	11/24/97	195.99	3.76	192.23	18000	4300	5900	600	2900	< 0.5	*
RS-7	2/25/98	195.99	3.70	192.29	13000	4300	7100	1100	5800	< 0.5	*
RS-7**	7/8/98	195.99	3.76	192.23	45000	10000	3400	2000	8000	< 10	*
RS-7	7/30/98	195.99			72000	12000	2100	2000	9100		
RS-7	9/16/98	195.99	3.83	192.16	5000	6500	160	< 2.5	500	< 5	*
RS-7	11/24/98	195.99	3.77	192.22	19000	2100	1100	500	2100	< 0.5	*
RS-7	2/23/99	195.99	3.76	192.29	63600	6500	9900	1200	7600	< 10	*
RS-7	5/5/99	195.99	3.68	192.11	47322	7400	4800	1300	7400	540	*
RS-7***	8/26/99	195.99	4.16	191.83	15000	3400	91	950	970	< 5	*
RS-7	11/10/99	195.99	4.12	191.87	10000	2900	170	630	1200	< 0.5	*
RS-7	2/9/00	195.99	3.98	192.01	9400	1400	120	480	600	< 0.5	*
RS-7	6/30/00	195.99	4.04	191.95	8200	3300	190	430	540	< 0.5	*
RS-7	8/8/00	195.99	4.06	191.93	11200	2300	150	430	520	< 0.5	*
RS-7	11/16/00	195.99	4.04	191.95	5400	1500	40	240	200	< 0.5	*
RS-7	3/8/01	195.99	3.94	192.05	12000	3300	260	480	850	17	***
RS-7	5/31/01	195.99	4.01	191.98	10000	1900	120	320	620	< 100	***
RS-7	12/18/01	195.99	4.81	191.18	2700	450	21	86	120	2.3	***
RS-7	2/19/02	195.99	3.91	192.03	20000	2600	360	570	1900	11	***
RS-7	5/7/02	195.99	3.97	192.02	9200	1400	120	360	780	6.6	***
RS-7	8/6/02	195.99	4.06	191.93	8300	1300	71	250	480	< 10	***

TABLE 1

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

ID#	DATE SAMPLED	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
		WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)		
(CALIFORNIA PUBLIC HEALTH GOAL)											
RS-8	12/14/89										
RS-8	09/04/96										
RS-8	12/11/96										
RS-8	2/21/97										
RS-8	5/28/97										
RS-8	9/2/97										
RS-8	11/24/97										
RS-8	2/25/98										
RS-8	7/8/98										
RS-8	9/16/98										
RS-8	11/24/98										
RS-8	2/23/99										
RS-8	5/5/99										
RS-8***	8/26/99	214.67	7.25	207.42	160000	24000	35000	4200	24000	<5	*
RS-8	11/10/99	214.67	8.69	205.98	150000	21000	29000	3000	14000	<0.5	*
RS-8	2/9/00	214.67	7.23	207.44	14000	1900	3200	270	2300	<0.5	*
RS-8	6/30/00	214.67	3.99	210.68	6400	570	870	150	770	<0.5	*
RS-8	8/8/00	214.67	7.52	207.15	100000	24000	40000	2300	9900	<0.5	*
RS-8	11/16/00	214.67	6.14	208.53	110000	14000	21000	2100	9600	<20	*
RS-8	3/8/01	214.67	9.40	205.27	10000	740	840	220	990	<2	****
RS-8	5/31/01	214.67	6.83	207.84	730	11	29	4.2	31	<5	****
RS-8	12/18/01	214.67	7.14	207.53	4500	230	370	77	750	<0.5	****
RS-8	2/19/02	214.67	7.69	206.98	780	33	21	5.1	45	<0.5	****
RS-8	5/7/02	214.67	7.82	206.85	24000	1500	1800	830	2700	<10	****
RS-8	8/6/02	214.67	13.46	201.21							
											0.04 feet floating product

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G	BENZENE	TOLUENE	ETHYL- BENZENE	XYLEMES	MTBE
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-9	12/14/89									
RS-9***	09/04/96									
RS-9***	12/11/96									
RS-9***	2/21/97									
RS-9***	5/28/97									
RS-9***	9/2/97									
RS-9***	11/24/97									
RS-9***	2/25/98									
RS-9***	7/8/98									
RS-9***	9/16/98									
RS-9***	11/24/98									
RS-9***	2/23/99									
RS-9***	5/5/99									
RS-9***	8/26/99	195.63	7.45	188.17	17000	3500	1200	360	1600	180*
RS-9	11/10/99	195.63	7.91	187.72	2800	520	62	46	130	<0.5
RS-9	2/9/00	195.63	6.09	189.54	3400	650	74	64	130	<0.5
RS-9	6/30/00	195.63	6.77	188.86	3000	600	79	74	120	<0.5
RS-9	6/8/00	195.63	7.32	188.31	4900	500	430	150	530	<0.5
RS-9	11/16/00	195.63	6.33	189.3	3000	350	220	90	220	<0.5
RS-9	3/8/01	195.63	4.93	190.7	<50	3.4	<0.5	<0.5	<0.5	<0.5
RS-9	5/31/01	195.63	4.01	191.62	510	96	6	6.2	9.1	5.5
RS-9	12/18/01	195.63	4.81	190.82	210	11	1.8	3.9	7.6	<0.5
RS-9	2/19/02	195.63	4.99	190.64	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-9	5/7/02	195.63	6.08	189.55	130	7.9	<0.5	1.2	<0.5	0.67
RS-9	8/6/02	195.63	6.93	188.7	380	29	1.2	2.3	2.9	3.1

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET AMSL)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
RS-10	12/14/89									
RS-10***	09/04/96									
RS-10***	12/11/96									
RS-10***	2/21/97									
RS-10***	5/28/97									
RS-10***	9/2/97									
RS-10***	11/24/97									
RS-10***	2/25/98									
RS-10***	7/8/98									
RS-10***	9/16/98									
RS-10***	11/24/98									
RS-10***	2/23/99									
RS-10***	5/5/99									
RS-10***	8/26/99	208.46	3.76	204.7	5100	160	340	190	1000	32*
RS-10	11/10/99	208.46	3.83	204.63	500	7	2	2	4	<0.5
RS-10	2/9/00	208.46	0.31	208.15	100	4	3	1	6	<0.5
RS-10	6/30/00	208.46	2.22	206.24	640	5	2	4	2	<0.5
RS-10	8/8/00	208.46	2.46	206	460	2	2	2	7	<0.5
RS-10	11/16/00	208.46	2.46	206	360	1	1	2	<1	<0.5
RS-10	3/8/01	208.46	2.82	205.64	53	<0.5	<0.5	<0.5	<0.5	<0.5
RS-10	5/31/01	208.46	4.93	203.53	210	<0.5	<0.5	1.5	5	<5
RS-10	12/18/01	208.46	2.10	206.36	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-10	2/19/02	208.46	2.29	206.17	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-10	5/7/02	208.46	2.92	205.54	<50	<0.5	<0.5	<0.5	<0.5	<0.5
RS-10	8/6/02	208.46	4.11	204.35	<50	<0.5	0.7	<0.5	1.6	<0.5

TABLE 1

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G (UG/L)	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLENES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
R1	12/14/89									
R1	09/04/96	227.69	15.00	212.69	1800	1100	3	29	< 10	< 30
R1	12/11/96	227.69	10.30	217.39	<50	<0.5	<0.5	<0.5	<1	4
R1	2/21/97	227.69	11.88	215.81	2500	670	9	3	13	<0.5*
R1	5/28/97	227.69	14.03	213.66	24000	4300	36	2000	370	<0.5*
R1	9/2/97	227.69	14.98	212.71	4400	320	6	340	72	20
R1	11/24/97	227.69	14.06	213.63	100	39	1	18	10	<0.5
R1	2/25/98	227.69	8.93	218.76	1200	400	9	12	150	<0.5
R1	7/8/98	227.69	11.36	216.33	68	14	<0.5	<0.5	<1	<1*
R1	9/16/98	227.69	13.30	214.39	16000	3400	92	<0.5	410	<1*
R1	11/24/98	227.69	10.72	216.97	340	19	1.6	35	9.7	<0.5
R1	2/23/99	227.69	9.34	218.35	60	16	0.6	5.6	1.2	<0.5
R1	5/5/99	227.69	11.30	216.39	1300	290	3	150	1	15
R1	8/26/99	227.69	13.97	213.72	6500	630	<0.5	1300	<1	<1
R1	11/10/99	227.69	13.73	213.96	480	12	4	22	9	<0.5
R1	2/9/00	227.69	13.10	214.59	<50	8	<0.5	1	<1	<0.5
R1	6/30/00	227.69	13.42	214.27	2600	350	35	1900	220	<0.5
R1	8/8/00	227.69	14.25	213.44	10000	910	76	2100	390	<0.5
R1	3/8/01	227.69	13.72	213.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5**
R1	3/8/01	227.69	13.72	213.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5****
R1	5/31/01	227.69	15.77	211.92	3800	400	16	470	67	5****
R1	12/16/01	227.69	9.90	217.79	<50	<0.5	<0.5	1.5	<0.5	<0.5****
R1	2/19/02	227.69	10.86	216.83	<50	<0.5	<0.5	<0.5	<0.5	<0.5****
R1	5/7/02	227.69	16.17	211.52	53	3.3	<0.5	1	<0.5	<0.5****
R1	8/6/02	227.69	16.83	210.86	<50	<0.5	<0.5	<0.5	<0.5	<0.5****

TABLE 1

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)
(CALIFORNIA PUBLIC HEALTH GOAL)										
R2	12/14/89									
R2	09/04/96	230.68	13.44	217.24	14000	7600	<10	170	190	<100
R2	12/11/96	230.68	12.42	218.26	488	300	1	<0.5	30	16
R2	2/21/97	230.68	10.56	220.12	5700	2100	5	2	10	3
R2	5/28/97	230.68	13.10	217.58	36000	14000	63	260	220	<0.5
R2	9/2/97	230.68	14.16	216.52	30000	12000	330	1000	790	47
R2	11/24/97	230.68	14.71	215.97	41000	15000	830	1500	4200	<0.5
R2	2/25/98	230.68	7.39	223.29	800	400	<0.5	<0.5	15	<0.5
R2	7/8/98	230.68	11.27	219.41	290	31	<0.5	1	<1	2
R2	9/16/98	230.68	13.73	216.95	6600	11000	24	<0.5	35	<1
R2	11/24/98	230.68	11.67	219.01	6100	<0.5	36	<0.5	21	<0.5
R2	2/23/99	230.68	7.55	223.13	1100	310	3	2	26	<0.5
R2	5/5/99	230.68	10.89	219.79	11000	5300	7	36	7	8
R2	8/26/99	227.28	13.14	214.14	6700	940	33	190	240	<1
R2	11/10/99	227.28	14.42	212.86	5100	2600	160	1800	8100	<0.5
R2	2/9/00	227.28	12.45	214.83	4700	1400	110	130	340	<0.5
R2	6/30/00	227.28	12.94	214.34	7100	3200	110	300	480	<0.5
R2	8/8/00	227.28	13.58	213.7	38000	13000	250	1000	2700	<0.5
R2	11/16/00	227.28	14.33	212.95	44000	17000	230	790	3600	<0.5
R2	3/8/01	227.28	11.15	216.13	2300	640	8.6	61	170	<2
R2	5/31/01	227.28	13.38	213.9	2200	580	12	72	100	<25
R2	12/18/01	227.28	12.35	214.93	4900	2000	120	44	280	<5
R2	2/19/02	227.28	11.32	215.96	2100	1200	<5	14	<5	<5
R2	5/7/02	227.28	13.15	214.13	2500	560	7.5	170	26	<2.5
R2	8/6/02	227.28	14.51	212.77	6300	1800	150	220	340	<5

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MTBE
					(UG/L) (1)	(UG/L) (150)	(UG/L) (300)	(UG/L) (1800)	(UG/L) (13)	
R3	12/14/89									
R3	09/04/96	230.32	9.90	220.42	<50	<0.5	<0.5	<0.5	<2	<5
R3	12/11/96	230.32	8.18	222.14	<50	<0.5	<0.5	<0.5	<1	5
R3	2/21/97	230.32	6.76	223.56	340	35	52	3	54	<0.5
R3	5/28/97	230.32	9.98	220.34	<50	<0.5	<0.5	<0.5	<1	<0.5
R3	9/2/97	230.32	10.86	219.46	<50	4	<0.5	<0.5	<1	<0.5
R3	11/24/97	230.32	11.20	219.12	not enough water to sample. No sample					
R3	2/25/98	230.32	3.42	226.9	<50	<0.5	<0.5	<0.5	<1	<0.5
R3	7/8/98	230.32	8.78	221.54	140	<0.5	<0.5	4	24	<1
R3	9/16/98	230.32	10.38	219.94	<50	<0.5	<0.5	<0.5	<1	<1
R3	11/24/98	230.32	11.12	219.2	not enough water to sample. No sample					
R3	2/23/99	230.32	3.95	226.37	<50	<0.5	<0.5	<0.5	<1	<0.5
R3	5/5/99	230.32	7.58	222.74	80	9	<0.5	<0.5	<1	6
R3	8/26/99	227.25	10.76	215.49	<50	2	<0.5	<0.5	<1	<1
R3	11/10/99	227.25	11.09	216.16	140	3	4	1	11	<0.5
R3	2/9/00	227.25	8.76	218.49	<50	2	<0.5	<0.5	<1	<0.5
R3	6/30/00	227.25	9.67	217.58	<50	0.7	<0.5	1	1	<0.5
R3	8/8/00	227.25	10.44	216.81	72	<0.5	<0.5	<0.5	<1	<0.5
R3	11/16/00	227.25	10.26	216.99	110	4	1	<0.5	3	<0.5
R3	3/8/01	227.25	6.54	220.71	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R3	5/31/01	227.25	10.01	217.24	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R3	12/18/01	227.25	6.79	220.46	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R3	2/19/02	227.25	7.86	219.39	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R3	5/7/02	227.25	9.20	218.05	<50	<0.5	<0.5	<0.5	<0.5	<0.5
R3	8/6/02	227.25	10.52	216.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5

TABLE 1

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

ID#	(All concentrations in parts per billion [ug/L, ppb]) (AMSL = Above mean sea level)									
	DATE SAMPLED	WELL CASING ELEVATION (FEET AMSL)	DEPTH TO GROUND WATER (FEET)	GROUND WATER ELEVATION (FEET AMSL)	TPH-G	BENZENE (UG/L) (1)	TOLUENE (UG/L) (150)	ETHYL- BENZENE (UG/L) (300)	XYLEMES (UG/L) (1800)	MTBE (UG/L) (13)
T 1	12/14/89									
T 1	09/04/96									
T 1	12/11/96									
T 1	2/21/97									
T 1	5/28/97									
T 1	9/2/97									
T 1	11/24/97									
T 1	2/25/98									
T 1	7/8/98									
T 1	9/16/98									
T 1	11/24/98									
T 1	2/23/99									
T 1	5/5/99									
T 1***	8/26/99	195.11	2.44	192.67	40000	7200	5000	950	8100	53*
T 1	11/10/99	195.11	2.23	192.88	46000	5600	3600	910	6500	<0.5
T 1	2/9/00	195.11	2.22	192.89	35000	2900	5700	720	6600	<0.5
T 1	6/30/00	195.11	2.22	192.89	30000	3400	3200	950	4600	<5
T 1	8/8/00	195.11	2.73	192.38	8900	1600	760	260	870	<5
T 1	11/16/00	195.11	2.72	192.39	4000	1300	92	80	290	<0.5
T 1	3/8/01	195.11	2.12	192.99	25000	4400	3400	770	3200	26
T 1	5/31/01	195.11	2.30	192.81	8900	940	210	340	1500	<50
T 1	12/18/01	195.11	2.20	192.91	48000	3700	5500	1200	5300	24
T 1	2/19/02	195.11	1.96	193.15	64000	8600	6000	1700	6800	55
T 1	5/7/02	195.11	2.22	192.89	41000	9200	910	2000	6200	62
T 1	8/6/02	195.11	2.32	192.79	28000	5500	240	1300	2600	32

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.

*** WELL CASING ELEVATION SURVEY 8-27-99, WADE HAMMOND No. 6163, BENCH MARK CITY OF OAKLAND
**** SAMPLES ANALYZED USING EPA METHOD 8260B

TABLE 2
GROUNDWATER REMOVAL
FORMER DP #793
4035 PARK BLVD., OAKLAND, CALIFORNIA

PURGING BY	DATE PURGED	METER READING IN GALLONS	METER READING IN GALLONS	DEPTH TO TOP OF WATER T1	GALLONS PURGED and/or 1/4ly monitoring T1	ACCUMULATED GALLONS REMOVED FROM TRENCH &WELLS in GALLONS	Accumulated gallons removed from RS5 Gallons	RECEPTOR TRENCH WATER ANALYSIS EPA METHOD 8020					
		RS5	TRENCH	IN FEET	T1	TOTAL GALLONS REMOVED		TPHg ug/L	BENZENE ug/L	TOLUENE ug/L	ETHYL- BENZENE ug/L	XYLENES ug/L	MTBE ug/L
WEDE	2/8/01		1136659.0	2.3	515	45339	0	45338.5					
WEDE	2/15/01		1137441.4	2.38	782	46121		46120.9					
WEDE	2/22/01	1140664.5	1141123.6	2	459	46580	3223.1	49803.1					
WEDE	3/1/01	1150033.2	1150736.5	2.18	703	47283	12132.7	59416.0					
WEDE	3/8/01	1158270.7	1158901.1	2.18	630	47914	19666.9	67580.6	25000	4400	3400	770	3200
WEDE	3/14/01	1161991.1	1162321.2	2.49	330	48244	22756.9	71000.7					26
WEDE	3/21/01	1162321.4	1162321.4	2.49	0	48244	22757.1	71000.9					
WEDE	4/4/01	1162321.4	1163471.7	2.54	1150	49394	22757.1	72151.2					
WEDE	4/12/01	1163471.7	1164723.5	2.16	1252	50646	22757.1	73403.0					
WEDE	4/19/01	1172032.3	1173267.0	2.45	1235	51881	30065.9	81946.5					
WEDE	4/26/01	1179315.2	1180276.0	2.25	961	52841	36114.1	88955.5					
WEDE	5/3/01	1180334.5	1181423.5	2.3	1089	53930	36172.6	90103.0					
WEDE	5/10/01	1188209.3	1188209.3	2.29	0	53930	42958.4	96888.8					
WEDE	5/16/01	1188209.3	1189899.1	2.29	1690	55620	42958.4	98578.6					
WEDE	5/24/01	1197065.0	1198018.4	2.13	953	56574	50124.3	106697.9					
WEDE	5/31/01	1198878.6	1199647.3	2.3	769	57342	50984.5	108326.8	8900	940	210	340	1500
WEDE	6/6/01	1203386.1	1204217.2	2.32	831	58173	54723.3	112896.7					
WEDE	6/14/01	1210661.4	1210661.4	2.31	0	58173	61167.5	119340.9					
WEDE	6/21/01	1214124.2	1214600.0	3.41	476	58649	64630.3	123279.5					
WEDE	6/28/01	1218305.1	1219387.7	2.37	1083	59732	68335.4	128067.2					
WEDE	7/5/01	1222739.6	1223625.4	3.5	886	60618	71687.3	132304.9					
WEDE	7/12/01	1227553.1	1228500.0	3	947	61565	75615.0	137179.5					
WEDE	7/19/01	1231804.3	1232750.7	3.61	946	62511	78919.3	141430.2	CEASE PUMPING				
WEDE	12/18/01	purged water from 1/4ly			238	62749	78919.3	141668.2	46000	3700	5500	1200	5300
WEDE	2/19/02	purged water from 1/4ly			246	62995	78919.3	141914.2	64000	8600	6000	1700	6800
WEDE	3/21/02	1235760.0	1235760.0		0	62995	78919.3	141914.2	set pump into RS5, restart pumping from RS-5				
WEDE	3/27/02	1243817.8	1243817.8		0	62995	86977.1	149972.0					
WEDE	4/11/02	1259678.6	1259678.6		0	62995	102837.9	165832.8					
WEDE	5/7/02	1283903.1	1283903.1	2.22	132	63127	126930.4	190057.3	41000	9200	910	2000	6200
WEDE	6/6/02	1308480.0	1308480.0		0	63127	151507.3	214634.2					62
WEDE	7/18/02	1330934.8	1330934.8		0	63127	173962.1	237089.0					
WEDE	8/6/02	1340694.7	1340694.7		0	63127	183722.0	246848.9	28000	5500	240	1300	2600
							< BELOW LABORATORY LOWER DETECTION LIMITS						32

ug/L micrograms per liter (parts per billion)

mg/L milligrams per liter (parts per million)

WESTERN GEO-ENGINEERS

mg/Kg milligrams per kilogram (parts per million)

TPHg TOTAL PETROLEUM HYDROCARBONS GASOLINE RANGE

MTBE METHYL TERTIARY BUTYL ETHER

* SAMPLED ON AUGUST 26, 1999

TABLE 3
WASTEWATER DISCHARGE PERMIT # 5043550 1
FORMER DP #793
4035 PARK BLVD., OAKLAND, CALIFORNIA

WASTEWATER SOURCE ID	DATE	METER READING IN GALLONS #35635668 314110	NEW METER IN GALLONS #47083426	GALLONS DISCHARGED BETWEEN VISITS	ACCUMULATIVE GALLONS DISCHARGED	AVERAGE DISCHARGE PER MINUTE IN GALLONS	EPA METHOD 624 BENZENE ug/L	TOLUENE ug/L	ETHYL-BENZENE ug/L	XYLENES ug/L	7420 LEAD ug/L
F1 (PSP No. 1)	2/22/01		1141123.6	3682	49804	0.37	start discharge from RS5				
F1 (PSP No. 1)	3/1/01		1150736.5	9613	59417	0.95	EPA METHOD 624				
F1 (PSP No. 1)	3/8/01		1158901.1	8165	67581	0.81	<1	<1	<1	<2	
F1 (PSP No. 1)	3/14/01		1162321.2	3420	71001	0.40					
F1 (PSP No. 1)	3/21/01		1162321.4	0	71001	0.00					
F1 (PSP No. 1)	4/4/01		1163471.7	1150	72152	0.06					
F1 (PSP No. 1)	4/12/01		1164723.5	1252	73404	0.11	EPA METHOD 8260B				
F1 (PSP No. 1)	4/19/01		1173267	8544	81947	0.85	<0.5	<0.5	<0.5	<0.5	
F1 (PSP No. 1)	5/3/01		1181423.5	8157	90104	0.40					
F1 (PSP No. 1)	5/10/01		1188209.3	6786	96889	0.67					
F1 (PSP No. 1)	5/16/01		1189899.1	1690	98579	0.20					
F1 (PSP No. 1)	5/24/01		1198018.4	8119	106698	0.70					
F1 (PSP No. 1)	5/31/01		1199647.8	1629	108328	0.16					
F1 (PSP No. 1)	6/6/01		1204217.2	4569	112897	0.53					
F1 (PSP No. 1)	6/14/01		1210661.4	6444	119341	0.56					
F1 (PSP No. 1)	6/21/01		1214600	3939	123280	0.39					
F1 (PSP No. 1)	6/28/01		1219387.7	4788	128068	0.47					
F1 (PSP No. 1)	7/5/01		1223625.4	4238	132305	0.42					
F1 (PSP No. 1)	7/12/01		1228500	4875	137180	0.48	EPA METHOD 8260B				
F1 (PSP No. 1)	7/19/01		1232750.7	4251	141431	0.42	<0.5	<0.5	<0.5	<0.5	
REMOVE PUMP AND DISCONTINUE SEWER DISCHARGE ON July 19, 2001, COMMENCE 1/4LY DISCHARGE											
F1 (PSP No. 1) 1/4LY SAMPLES	12/18/01			238	141669	5.00	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1) 1/4LY SAMPLES	2/19/02			246	141915	5.00	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	3/21/02		1235760	0	141915	2.00					
F1 (PSP No. 1)	3/27/02		1243817.8	8058	149973	0.93					
F1 (PSP No. 1)	4/11/02		1259678.6	15861	166833	0.73	<0.5	<0.5	<0.5	<0.5	<0.5
F1 (PSP No. 1)	5/7/02		1283903.1	24225	190058	0.65					
F1 (PSP No. 1)	6/6/02		1308480	24577	214635	0.57					
F1 (PSP No. 1)	7/18/02		1330934.8	22455	237090	0.37					
F1 (PSP No. 1)	8/6/02		1340694.7	9760	246849	0.36	<0.5	<0.5	<0.5	<0.5	<0.5

< BELOW LABORATORY LOWER DETECTION LIMITS

ug/L micrograms per liter (parts per billion)

Note: water meter #47083426 did not function during initial test, substitute meter #35635668 used until cleaned and tested. Re-installed January 28, 2000.

Note: water meter difference from 7/19/2001 to 3/21/2002 is from use of meter at other sites to meter discharges when pumping was discontinued on 7/19/2001.

WATER DISCHARGED TO SEWER IS FROM PURGING OF T1, DISCHARGE FROM WELL RS5 AND PURGED WATER FROM 1/4LY SAMPLING.

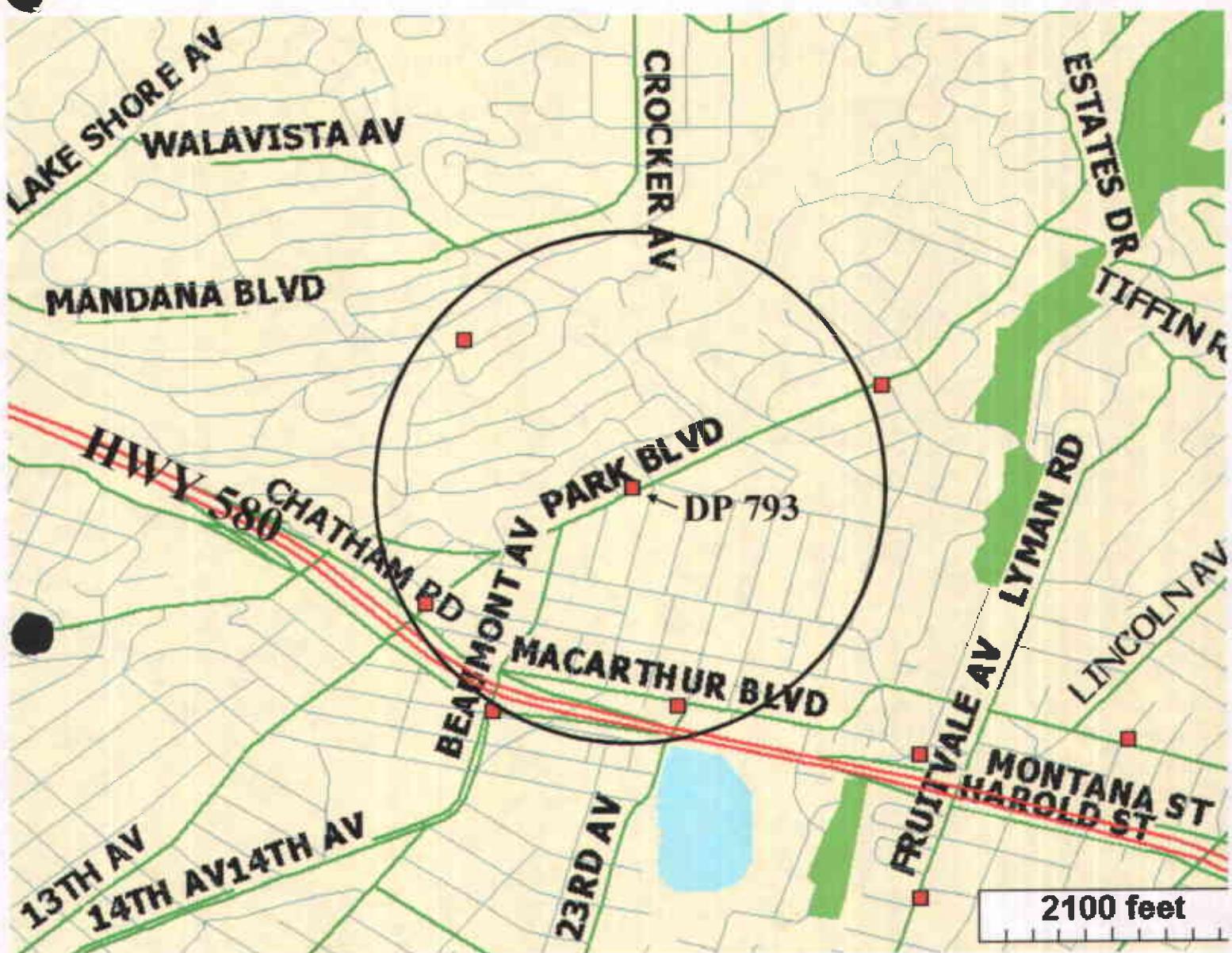


FIGURE 1
GEOTRACKER
AREA WELL & LUST MAP
DP 793
4035 PARK BLVD.
OAKLAND, CA

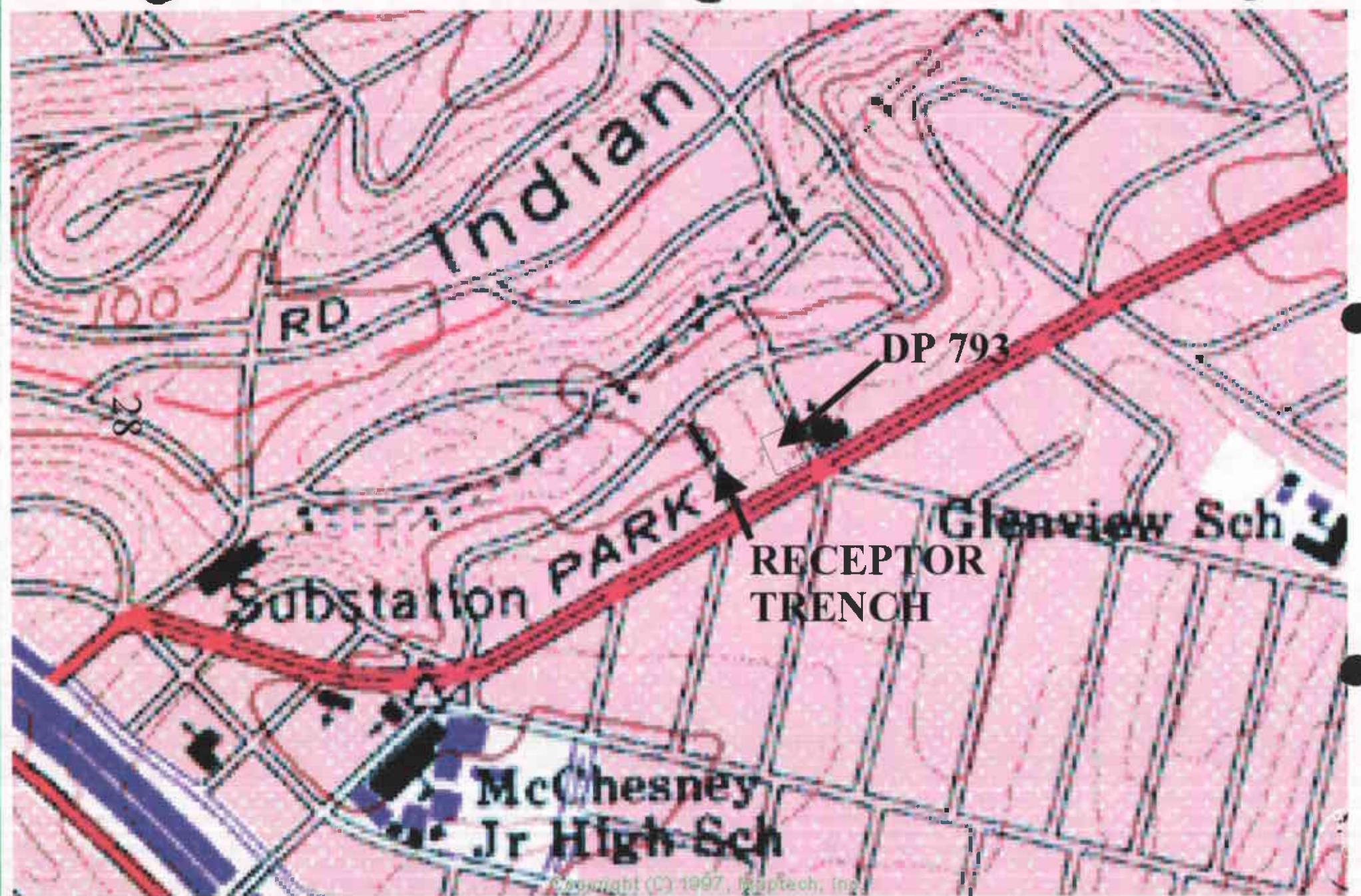
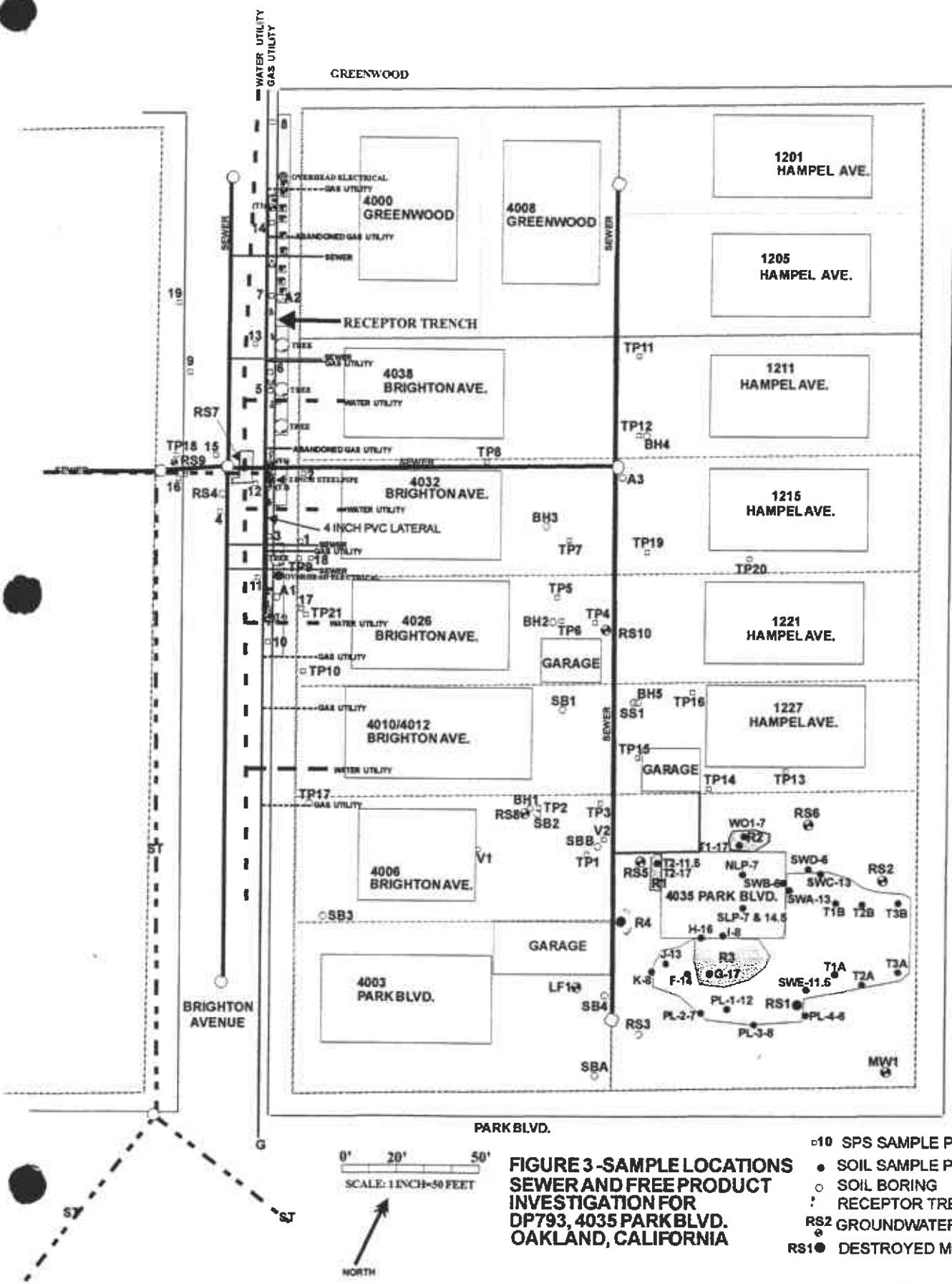


FIGURE 2

PORTION OF OAKLAND EAST 7.5 MINUTE USGS TOPOGRAPHIC MAP

NOR



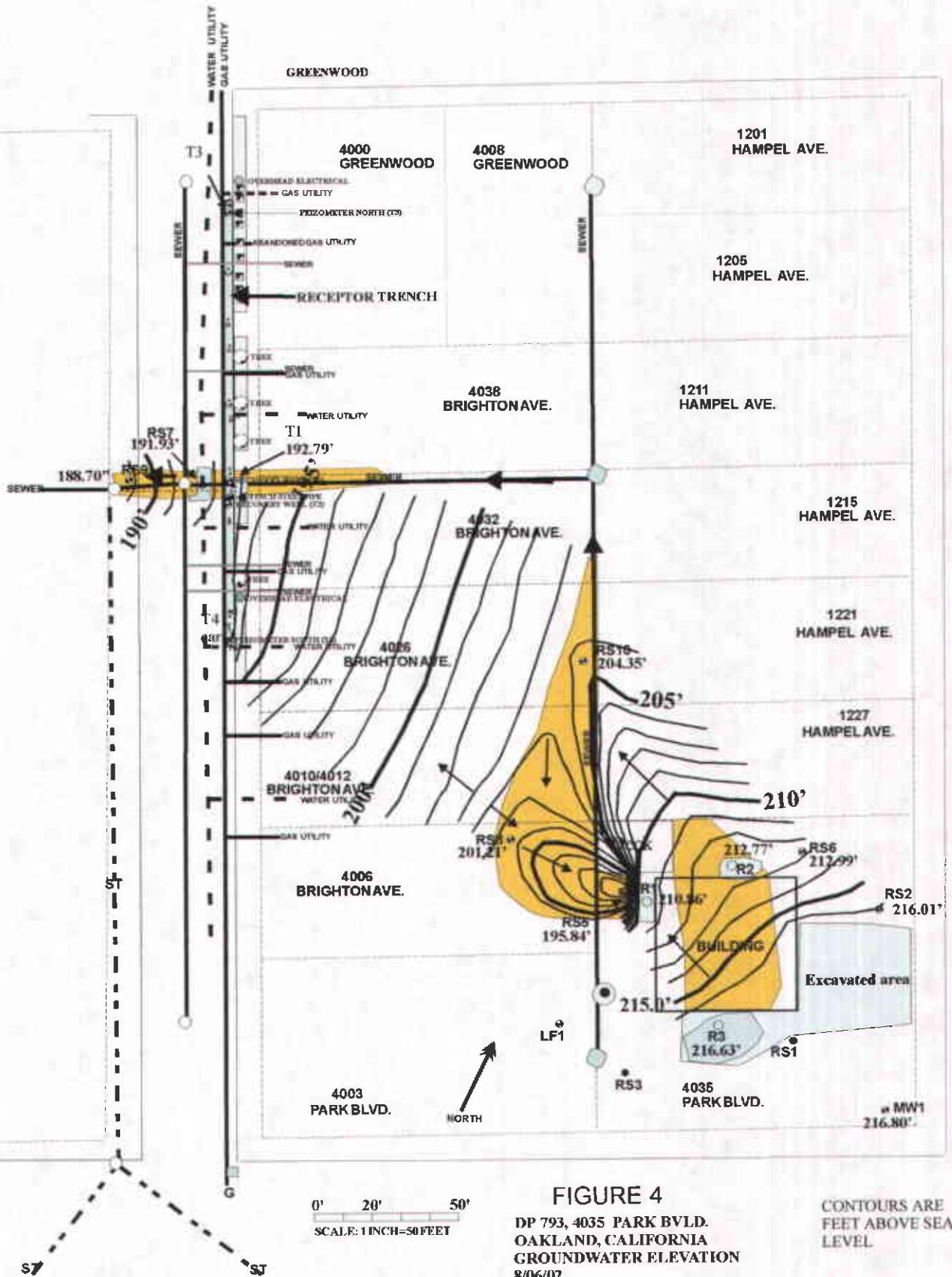
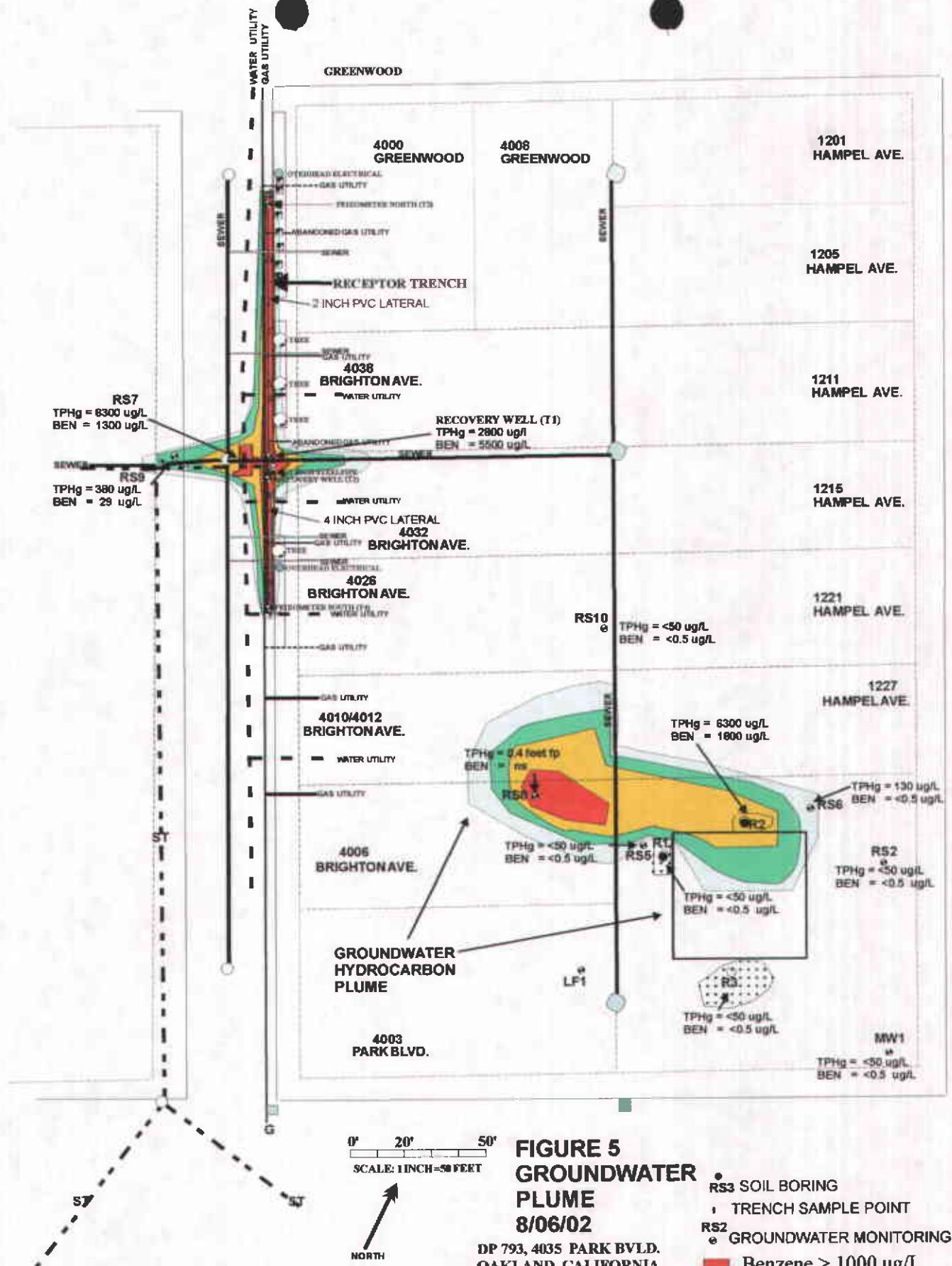


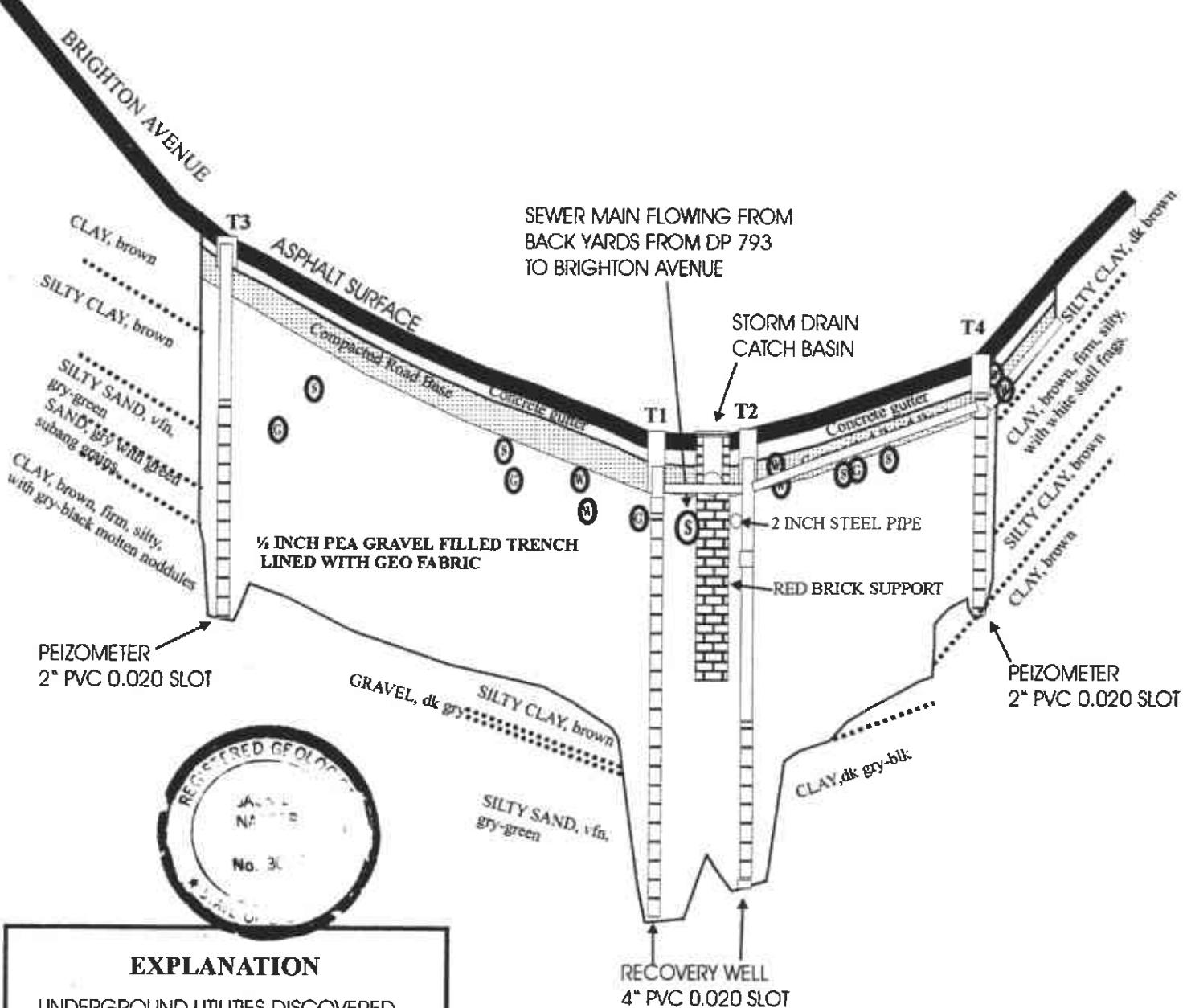
FIGURE 4

DP 793, 4035 PARK BLVD.
OAKLAND, CALIFORNIA
GROUNDWATER ELEVATION
8/06/02.

CONTOURS ARE
FEET ABOVE SEA
LEVEL

■ Areas that in the past contained soil contamination, TPHg > 10 mg/Kg



**EXPLANATION**

UNDERGROUND UTILITIES DISCOVERED

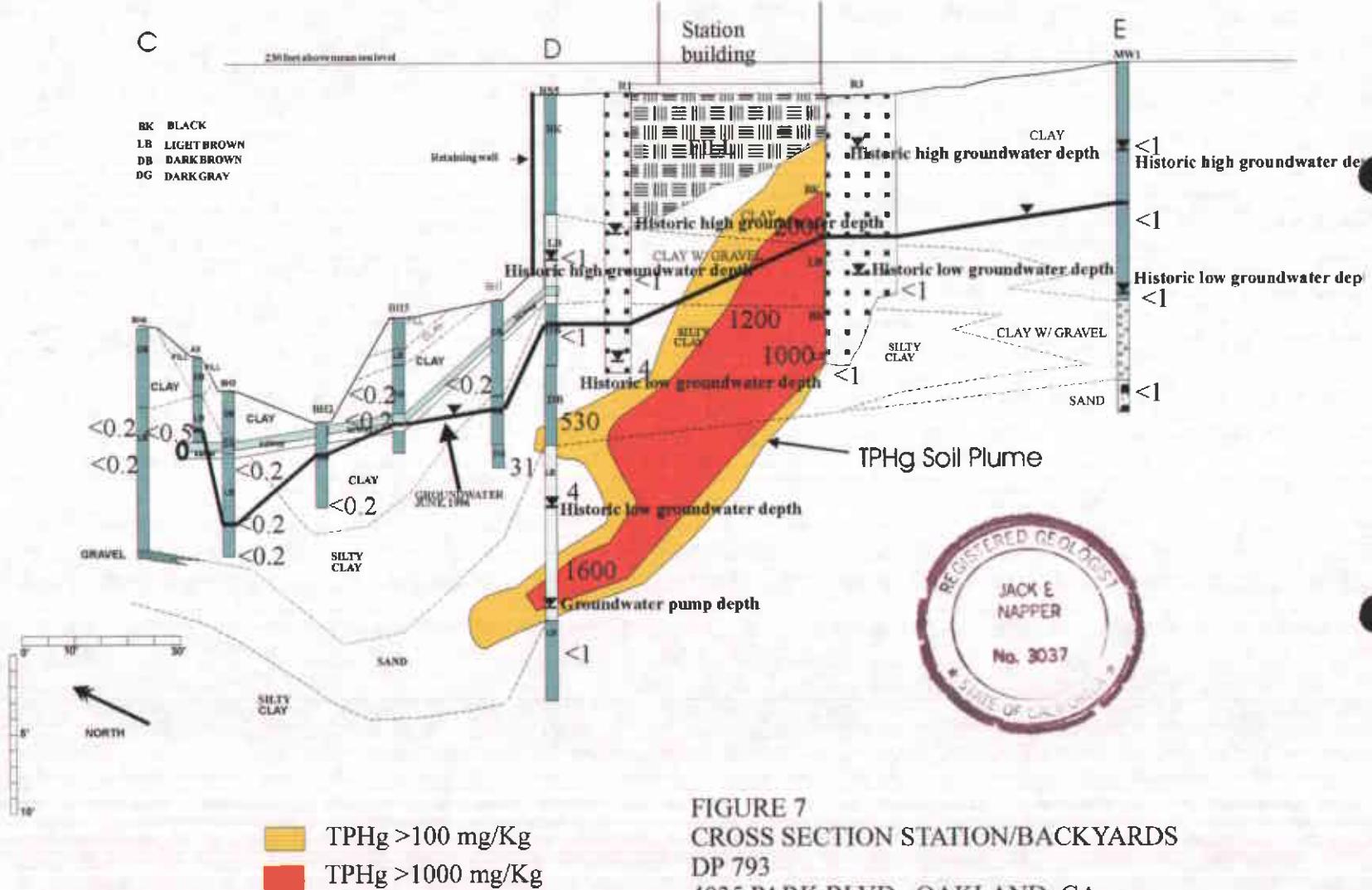
- (S) SEWER UTILITY HOUSE LATERAL
- (G) GAS UTILITY HOUSE LATERAL
- (W) WATER UTILITY HOUSE LATERAL

0' 10' 30' 60'
SCALE: 1 INCH = 30 FEET

5'
10'
SCALE: 1 INCH = 5 FEET

NORTH

FIGURE 6
CROSS SECTION
AS BUILT RECEPTOR TRENCH
FOR FREE PRODUCT AND GROUNDWATER RECOVERY
DP793, 4035 PARK BLVD.
OAKLAND, CALIFORNIA
SEPTEMBER 9, 1999



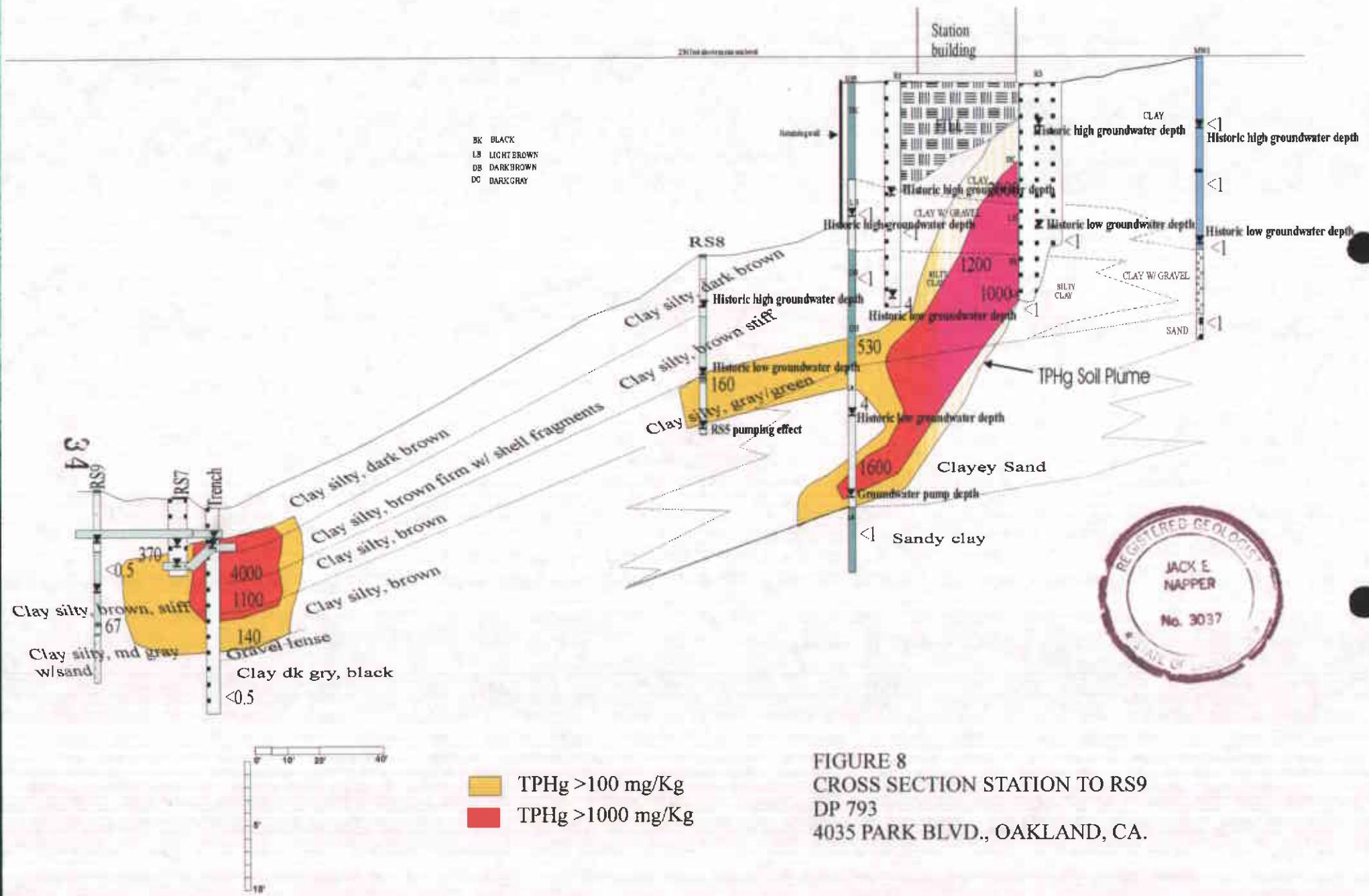


FIGURE 8
CROSS SECTION STATION TO RS9
DP 793
4035 PARK BLVD., OAKLAND, CA.

APPENDIX A

**QA/QC METHODS & PROCEDURES
WITH FIELD NOTES**

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 4°C 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) is 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 B of this report.

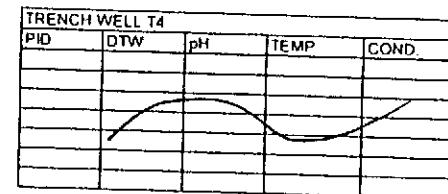
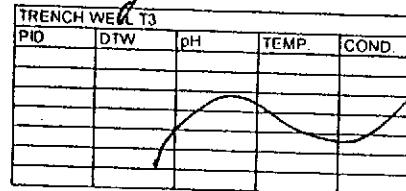
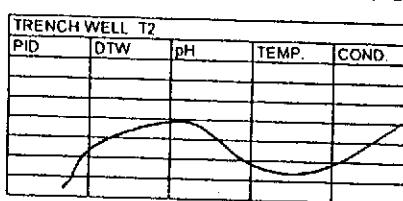
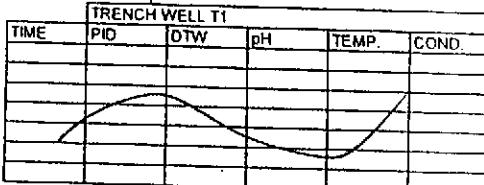
FORMER DESERT PETROLEUM SITE DP 793

4035 PARK BLVD.
OAKLAND, CALIFORNIA 94602
WASTE WATER DISCHARGE PERMIT NUMBER 5043550 1

WASTE WATER PRETREATMENT, SEDIMENT SETTLING TANK AND 2 IN SERIES CARBON WATER SCRUB UNITS
PEAK HOURLY DISCHARGE 2 GPM. DAILY 2880 GALLONS

DATE 7-18-02

REASON FOR SITE VISIT

Monthly DTW & Pump Check

DEPTH TO WATER

TIME	MW1	RS2	RS5	RS6
1545	10.95	10.95	19.31	12.87

RS7	RS8	RS9	RS10
11.90	6.86	13.23	

R1	R2	R3
11.66	14.28	10.94

COMMENTS

*Opened Both Carbons to break up surface C2 OK C1 plugged - Pump Plugged*ELECTRIC METER 16909WATER METER 1330934.8

SAMPLE(S) _____

SITE MONITORED BY Broadway

WASTEWATER
INFLUENT EFFLUENT

TIME	
pH	
Conductivity	
Temperature	
PID	

WATER TREATMENT

T1 FLOW RATE

~~GALLONS / MINUTES~~GALLONS PURGED
~~GALLONS PURGED~~

T2 FLOW RATE

PRESSURE WATER CARBONS #1 2.9 PSI, #2 5 PSI

WATER PHASE CARBON UNITS INSPECTION COMMENTS

CONDITION OF COMPOUND COMMENTS

Acceptance of water phase carbon units only if completely flooded with water yes no - return to carbon manufacturerAcceptance of water phase carbon units only if pH is less than 8.5 and containers are in good condition yes no - return to carbon manufacturer*Pulled Pump
Disassembled & Cleared*

WELL SAMPLING DATA SHEET

SITE DP 793	DATE 8-6-02	TIME 10 30
WELL MW1	SAMPLED BY. Broadway	
<hr/>		
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER	12.70	DTB 18.32
FLUID ELEVATION	216.80	
BAILER TYPE	Disposable Bailer	
PUMP	David Pittman	

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1034	1 Bailer	76.8	7.40	.15
1036	1 gal	76.7	6.78	.14
1038	1 "	70.3	6.64	.14
1040	1 "	70.3	6.53	.14
1042	1 "	70.2	6.54	.14

FINAL VOLUME PURGED	4 gal
TIME SAMPLED	1042
SAMPLE ID.	MW1
SAMPLE CONTAINERS	3/40cc VOA's
ANALYSIS TO BE RUN	TPHg BTEX / MTBE
LABORATORY	AES Kiff
NOTES:	1st Bailer Clear No Color

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 1043
WELL RS2	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 11.38 DTB 18.1		
FLUID ELEVATION 216.01		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1045	1 Baile	69.6	6.65	,34
1049	14 gal	67.9	7.03	,34
1051	1	68.1	6.94	,34
1053	1	68.2	6.94	,34

FINAL VOLUME PURGED	16 gal
TIME SAMPLED	1055
SAMPLE ID.	RS2
SAMPLE CONTAINERS	3/40cc VORs
ANALYSIS TO BE RUN	TPIg BTEX /MTRE
LABORATORY	NSE Kipp
NOTES:	1ST Baile Clear No Odor

WELL SAMPLING DATA SHEET

SITE DP 793	DATE 8-6-02	TIME 1140
WELL RSS	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER ? DTB 39.20		
FLUID ELEVATION ? 195.84?		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1142	1 Baile	65.3	6.57	.28
	gsl			

FINAL VOLUME PURGED	gsl
TIME SAMPLED 1142	0
SAMPLE ID. RSS	
SAMPLE CONTAINERS 3/40cc VOR's	
ANALYSIS TO BE RUN TPIG 8TEX /MTRE	
LABORATORY USE Kiff	
NOTES: 1ST Baile Backrin slinc No DTW	
Elec = 14072	Flow meter - 1345694.7

WELL SAMPLING DATA SHEET

SITE 00 793	DATE 8-6-02	TIME 1058
WELL RS6	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 14.23 DTB 34.02		
FLUID ELEVATION 212.99		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1100	1 Baile	66.7	7.14	.26
1112	40 gal	66.3	7.11	.27
1113	1	65.9	6.97	.27
1114	1	65.7	6.95	.27
1115	1	65.5	6.91	.27

FINAL VOLUME PURGED	43 gal
TIME SAMPLED	1116
SAMPLE ID.	RS6
SAMPLE CONTAINERS	3/40cc VOR's
ANALYSIS TO BE RUN	TPHg BTEX /MTRE
LABORATORY	ASCE KIP
NOTES: 1 ST Baile Clear	No Odor

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 1016
WELL RS7	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 4.06 DTB 7.0		
FLUID ELEVATION 191.93		
BAILER TYPE Disposable Bailer		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1012	1 Bailer	71.3	6.85	,21
1015	2 gal	71.6	6.82	,22
1017	1 "	71.7	6.88	,21

FINAL VOLUME PURGED 3 gal
TIME SAMPLED 1018
SAMPLE ID. RS7
SAMPLE CONTAINERS 3/40cc VOR's
ANALYSIS TO BE RUN TP11G 8TEX /MTRE
LABORATORY USE KTF
NOTES: 1ST BAILER Turbid Slight odor

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 0920
WELL NW8	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS .04		
DEPTH TO WATER 13.46 DTB 14.4		
FLUID ELEVATION 201.21		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

P51
19623

WELL PURGING RECORD

TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
925	1 Baile	67.3	6.88	.15
	81			

FINAL VOLUME PURGED .5 gal
TIME SAMPLED
SAMPLE ID. NO SAMPLE
SAMPLE CONTAINERS 140cc VOR's
ANALYSIS TO BE RUN TPIC 8TEX / MTRE
LABORATORY NSC
NOTES: 1 st Baile Floating Product "yellow color"

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 955
WELL RS9	SAMPLED BY. Broadway	

WELL ELEVATION

PRODUCT THICKNESS

DEPTH TO WATER 6.93 DTB 12.3

FLUID ELEVATION 188.70

BAILER TYPE Disposable Baile

PUMP David Pittman

147.14

147.14

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
959	1 Baile	68.7	6.73	.14
1002	3 gal	68.7	6.70	.15
1004	1	68.4	6.70	.15

FINAL VOLUME PURGED 4 gal

TIME SAMPLED 1005

SAMPLE ID. RS9

SAMPLE CONTAINERS 3/40cc VOR's

ANALYSIS TO BE RUN TPIIG 8TEX /MTRE

LABORATORY AISC Kiff

NOTES: 1ST Baile Cloudy No Odor

WELL SAMPLING DATA SHEET

SITE 09793	DATE 8-6-02	TIME 935
WELL MW10	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER	4.11	DTB 9.6
FLUID ELEVATION	204.35	
BAILER TYPE	Disposable Bailer	
PUMP	David Pittman	

WELL PURGING RECORD

TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
938	1 Bailer	65.2	6.62	.11
942	2 gal	64.2	6.52	.09
944	1	63.8	6.47	.09
946	1	63.7	6.97	.09

FINAL VOLUME PURGED

4 gal

TIME SAMPLED 948

0

SAMPLE ID. MW10

SAMPLE CONTAINERS 3/40cc VOR's

ANALYSIS TO BE RUN TPH BTEX /MTBE

LABORATORY - USE Kiff

NOTES: 1ST Bailer STAINED

Smelly

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 1016
WELL T1	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 232 ft 14		
FLUID ELEVATION 192.79		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1017	1 Baile	71.3	6.63	.27
1022	30 gal	70.6	6.73	.27
1024	1	70.6	6.73	.27

FINAL VOLUME PURGED	31 gal
TIME SAMPLED	1025
SAMPLE ID.	T1
SAMPLE CONTAINERS	3/40cc VDR's
ANALYSIS TO BE RUN	TPIG 8TEX /MTRE
LABORATORY	ASC Kipp
NOTES:	1st Baile Clear Strong Odor

WELL SAMPLING DATA SHEET

SITE 00 793	DATE 8-6-02	TIME 1133
WELL R1	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 16.83 UTB 16.92		
FLUID ELEVATION 20.86		
BAILER TYPE Disposable BaileR		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1135	1 BaileR	63.8	6.93	.14
	Empty			

FINAL VOLUME PURGED	9.1
TIME SAMPLED	1137 0
SAMPLE ID.	R1
SAMPLE CONTAINERS	3/40cc VOR's
ANALYSIS TO BE RUN	TPIIC BTEX / MTRE
LABORATORY	NSE
NOTES:	1ST BaileR Cloudy Strong Odor
NOT enough water to purge and sample	

WELL SAMPLING DATA SHEET

SITE 00793	DATE 8-6-02	TIME 1120
WELL R2	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER 14.51 DTB 16.8		
FLUID ELEVATION 212.77		
BAILER TYPE Disposable Baile		
PUMP David Pittman		

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1123	1 Baile	65.3	7.38	.27
1127	6 gal	64.6	6.85	.28
1128	1 "	64.4	6.83	.28
1129	1 "	64.0	6.83	.28

FINAL VOLUME PURGED	8 gal
TIME SAMPLED	1130
SAMPLE ID.	R2
SAMPLE CONTAINERS	3/40cc VOR's
ANALYSIS TO BE RUN	TPIg BTEx/MTRe
LABORATORY	AES Kipp
NOTES:	1st Baile Clear Strong Odor

029403

2b.

WELL SAMPLING DATA SHEET

SITE OP 793	DATE 8-6-02	TIME 1144
WELL R3	SAMPLED BY. Broadway	
WELL ELEVATION		
PRODUCT THICKNESS		
DEPTH TO WATER	10.62	DTB 11.74
FLUID ELEVATION	216.63	
BAILER TYPE	Disposable Bailer	
PUMP	David Pittman	

WELL PURGING RECORD				
TIME	VOLUME REMOVED	TEMP. F°	pH	COND. X1000
1145	1 Bailer	66.7	6.69	.31
1150	3 gal	67.0	6.83	.33
1153	1 "	67.7	6.94	.33

FINAL VOLUME PURGED	9 gal
TIME SAMPLED	1154
SAMPLE ID.	R3
SAMPLE CONTAINERS	3/40cc VOR's
ANALYSIS TO BE RUN	TPIIG BTEX / MTBE
LABORATORY	AWE KTF
NOTES: 1ST Bailer Clean	No Odor

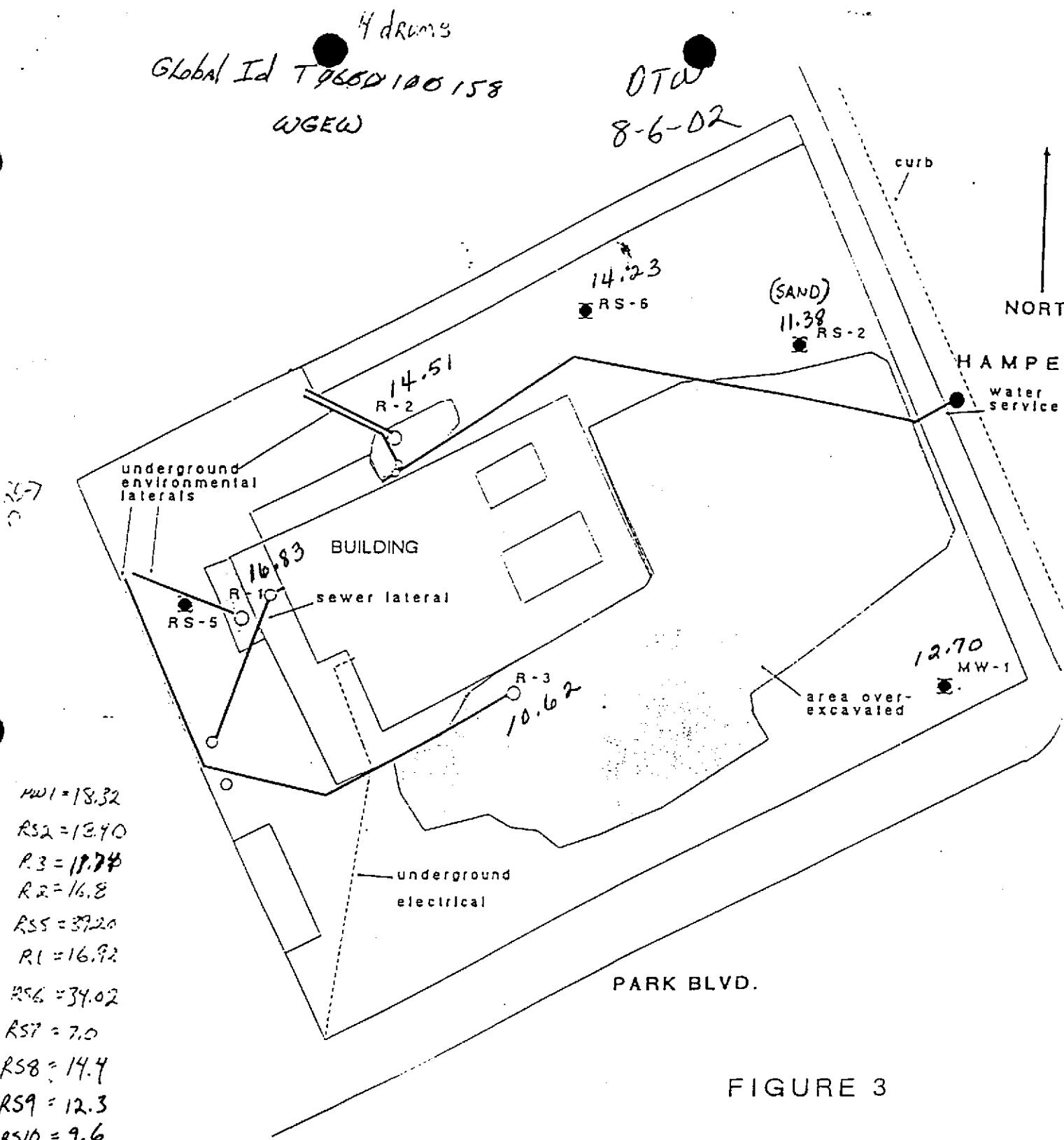


FIGURE 3

SITE BASE MAP

0'
 20'
 40'
 SCALE: 1" = 20'.

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

80 → 113 → 34 Harvard

RS7 = 7.0

RS8 = 14-

RS9 = 12-

RS10 = 9-

T1 = 14.6

T2 = 13.9

ST

R9

SEWER

406

R57

2,32

4000
GREENWOOD

4008
GREENWOOD

BTW
8-6-02

OVERHEAD ELECTRICAL
GAS UTILITY

T-3
PEZONIETER NORTH (T3)

ABANDONED GAS UTILITY

SEWER

RECEPTOR TRENCH

TREE

SEWER
GAS UTILITY

TREE

WATER UTILITY

TREE

4038
BRIGHTON AVE.

R57

F1

RECOVERY WELL 1 (T1) SEWER

2 ENCH STEELPIPE
RECOVERY WELL 2 (T2)

WATER UTILITY

4032
BRIGHTON AVE.

SEWER
GAS UTILITY

TREE

SEWER
OVERHEAD ELECTRICAL

PEZONIETER SOUTH (T4)
WATER UTILITY

GAS UTILITY

4026
BRIGHTON AVE.

R56

R58

F1

GAS UTILITY

GAS UTILITY

4010/4012
BRIGHTON AVE.

SEWER

R58

F1

WATER UTILITY

GAS UTILITY

R58

Treatment
compound

8x4
1"=25'

4006
BRIGHTON AVE.

R1
RS5

SEWER

LF1

4003
PARK BLVD.



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Project Contact (Hardcopy or PDF To):

George Converse

Company/Address:

*WAGE 1316 L. FARMER CR.
Woodland*

Phone No.:

530-668-5300

FAX No.:

530 662 6673

Project Number:

11-793

P.O. No.:

Project Name:

PP 793

Project Address:

*1135 18th St.
Woodland*

Sample Designation

	Sampling		Container	Preservative	Matrix	BTEX (8021B)
	Date	Time				
MAH	8/6/02	1042	3	/	/	/
RS-02		1055				
RS-05		1142				
RS-06		1116				
RS-07		1018				
RS-09		1005				
RS-10		948				
R-1		1137				
R-2		1130				
R-3		1154				

Relinquished by:

George Converse

Date *8/6/02* Time *1920* Received by: _____

Remarks:

Relinquished by:

Date _____ Time _____ Received by: _____

Relinquished by:

Date *08/02* Time *1920* Received by Laboratory: *Kiff*
Osama Albolawi Analytical

Bill to:

Distribution: White - Lab, Yellow - File, Pink - Originator

Lab No. _____

Page *1* of *2*

Chain-of-Custody Record and Analysis Request

Analysis Request

BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (B260B)	5 Oxygenates/BTEX (B260B)	7 Oxygenates/TPH Gas/BTEX (B260B)	5 Oxygenates (B260B)	7 Oxygenates (B260B)	Lead Scav. (1.2 DCA & 1.2 EDB - B260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (742/2392) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/ <i>W</i>	TAT
---------------------------------	-----------------------	--------------------------	---------------------------	---------------------------	-----------------------------------	----------------------	----------------------	----------------------------------------	-----------------------	----------------------------------	--------------------------------------	-----------------------------------	-----

For Lab Use Only



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. _____
Page 3 of 2

Project Contact (Hardcopy or PDF To):

George Conner

Company/Address:

WEGG 152. C. Bearner
Woodland

Phone No.:

FAX No.:

5

Project Number:

DP793

P.O. No.:

Project Name:

DP793

Project Address:

4035 Park Blvd
Woodland

Sample Designation

T1

Date

Time

8/6/02 1025

✓ 1805

California EDF Report? Yes No

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

Global ID:

T-D-6-6-D-1-0-0-1-5-8

EDF Deliverable To (Email Address):

Sampler Signature:

LJ Broadhead

Container Preservative Matrix

40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER	SOIL
-----------	--------	-----	------------------	-----	------	-------	------

3		✓	✓			✓	
		✓	✓			✓	

Chain-of-Custody Record and Analysis Request

Analysis Request

BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/2392) TOTAL (X) W.E.T. (X)	TAT
--------------	---------------------------------	-----------------------	--------------------------	---------------------------	-----------------------------------	-----------------------------------	----------------------	----------------------	----------------------------------------	-----------------------	----------------------------------	---------------------------------------	-----

Relinquished by:

LJ Broadhead

Date

7/6/02

Time

1920

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

08/08/02

Time

1920

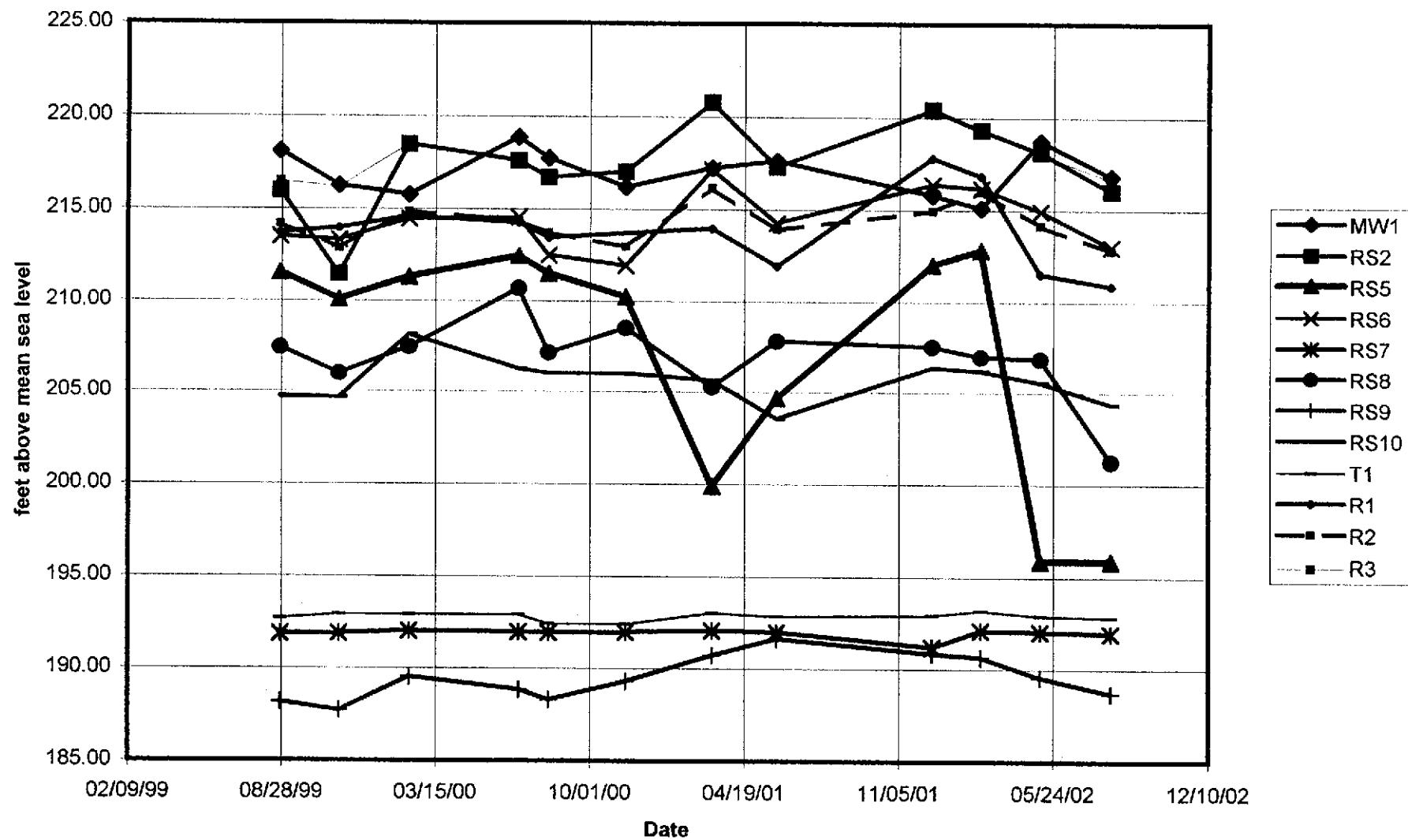
Received by Laboratory:

Kiff
Osama Albalwi / Analysis

Bill to:

APPENDIX B.
GROUNDWATER ELEVATION CHART

Groundwater Elevation





Report Number : 27938

Date : 8/14/2002

George Converse
Western Geo-Engineers
1386 East Beamer St.
Woodland, CA 95776

Subject : 12 Water Samples
Project Name : DP793
Project Number : DP793

Dear Mr. Converse,

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,

A handwritten signature in black ink that reads "Joel Kiff". Below the signature, the name "Joel Kiff" is printed in a small, black, sans-serif font.



Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : MW-1

Matrix : Water

Lab Number : 27938-01

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surr)	92.0		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surr)	90.2		% Recovery	EPA 8260B	8/10/2002

Sample : RS-02

Matrix : Water

Lab Number : 27938-02

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surr)	94.4		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surr)	88.9		% Recovery	EPA 8260B	8/10/2002

Approved By: Joel Kiff



Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : RS-05 Matrix : Water Lab Number : 27938-03

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surrogate)	97.8		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surrogate)	90.0		% Recovery	EPA 8260B	8/10/2002

Sample : RS-06 Matrix : Water Lab Number : 27938-04

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	3.0	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	130	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surrogate)	98.6		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surrogate)	90.9		% Recovery	EPA 8260B	8/10/2002

Approved By: Joel Kiff

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Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : RS-07

Matrix : Water

Lab Number : 27938-05

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1300	10	ug/L	EPA 8260B	8/11/2002
Toluene	71	10	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	250	10	ug/L	EPA 8260B	8/11/2002
Total Xylenes	480	10	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	< 10	10	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	8300	1000	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surrogate)	99.8		% Recovery	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surrogate)	99.9		% Recovery	EPA 8260B	8/11/2002

Sample : RS-09

Matrix : Water

Lab Number : 27938-06

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	29	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	1.2	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	2.3	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	2.9	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	3.1	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	380	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surrogate)	96.2		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surrogate)	90.8		% Recovery	EPA 8260B	8/10/2002

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Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : RS-10

Matrix : Water

Lab Number : 27938-07

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	0.70	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	1.6	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surr)	89.8		% Recovery	EPA 8260B	8/10/2002

Sample : R-1

Matrix : Water

Lab Number : 27938-08

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surr)	95.4		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surr)	89.0		% Recovery	EPA 8260B	8/10/2002

Approved By: Joel Kiff

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Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : R-2

Matrix : Water

Lab Number : 27938-09

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1800	5.0	ug/L	EPA 8260B	8/13/2002
Toluene	150	5.0	ug/L	EPA 8260B	8/13/2002
Ethylbenzene	220	5.0	ug/L	EPA 8260B	8/13/2002
Total Xylenes	340	5.0	ug/L	EPA 8260B	8/13/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	8/13/2002
TPH as Gasoline	6300	500	ug/L	EPA 8260B	8/13/2002
Toluene - d8 (Surrogate)	97.6		% Recovery	EPA 8260B	8/13/2002
4-Bromofluorobenzene (Surrogate)	106		% Recovery	EPA 8260B	8/13/2002

Sample : R-3

Matrix : Water

Lab Number : 27938-10

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surrogate)	95.9		% Recovery	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surrogate)	89.2		% Recovery	EPA 8260B	8/10/2002

Approved By: Joel Kiff



Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : T1

Matrix : Water

Lab Number : 27938-11

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5500	25	ug/L	EPA 8260B	8/11/2002
Toluene	240	25	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	1300	25	ug/L	EPA 8260B	8/11/2002
Total Xylenes	2600	25	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	32	25	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	28000	2500	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surrogate)	99.4		% Recovery	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surrogate)	100		% Recovery	EPA 8260B	8/11/2002

Sample : CARBON DISCHARGE

Matrix : Water

Lab Number : 27938-12

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surrogate)	108		% Recovery	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surrogate)	80.8		% Recovery	EPA 8260B	8/11/2002

Approved By: Joel Kiff

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Report Number : 27938

Date : 8/14/2002

QC Report : Method Blank Data

Project Name : DP793

Project Number : DP793

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surr)	103		%	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surr)	97.6		%	EPA 8260B	8/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002
Toluene - d8 (Surr)	91.3		%	EPA 8260B	8/10/2002
4-Bromofluorobenzene (Surr)	88.7		%	EPA 8260B	8/10/2002

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27938

Date : 8/14/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	8/11/02	116	70-130
Toluene	40.0	ug/L	EPA 8260B	8/11/02	111	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/11/02	98.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/11/02	86.0	70-130
Benzene	40.0	ug/L	EPA 8260B	8/10/02	108	70-130
Toluene	40.0	ug/L	EPA 8260B	8/10/02	93.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/10/02	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/10/02	94.2	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 27938

Date : 8/14/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793

Project Number : DP793

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	27941-02	<0.50	39.8	39.8	47.6	47.2	ug/L	EPA 8260B	8/11/02	120	118	0.987	70-130	25
Toluene	27941-02	<0.50	39.8	39.8	46.1	45.8	ug/L	EPA 8260B	8/11/02	116	115	0.672	70-130	25
Tert-Butanol	27941-02	18	199	199	226	218	ug/L	EPA 8260B	8/11/02	104	101	3.55	70-130	25
Methyl-t-Butyl Ether	27941-02	<0.50	39.8	39.8	35.4	35.2	ug/L	EPA 8260B	8/11/02	88.8	88.4	0.423	70-130	25
Benzene	27938-01	<0.50	40.0	40.0	43.2	42.1	ug/L	EPA 8260B	8/10/02	108	105	2.58	70-130	25
Toluene	27938-01	<0.50	40.0	40.0	39.4	38.3	ug/L	EPA 8260B	8/10/02	98.5	95.8	2.73	70-130	25
Tert-Butanol	27938-01	<5.0	200	200	203	201	ug/L	EPA 8260B	8/10/02	102	101	0.811	70-130	25
Methyl-t-Butyl Ether	27938-01	<0.50	40.0	40.0	40.0	39.9	ug/L	EPA 8260B	8/10/02	100	99.6	0.326	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff





720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 27938

Page 1 of 2

Project Contact (Hardcopy or PDF To):

George Converse

Company Address:

WEGE 1866 E. Beamer Woodland CA

Phone No.:

530-668-5300

FAX No.:

530 662 0273

Project Number:

DP793

P.O. No.:

Project Name:
DP793

Project Address:

4035 PARK BLVD
OAKLAND

Sample Designation

	Sampling		Container	Preservative	Matrix	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	5 Oxygenates/BTEX/Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (112 DCA & 112 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7427/29.2) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/ ^{TPH}	TAT	For Lab Use Only
	Date	Time																		
MWH	8/6/02	1042	3			/	/	/	/	/									-01	
RSR RS-02		1055																	-02	
RSR RS-05		1142																	-03	
RSR RS-06		1116																	-04	
RSR RS-07		1018																	-05	
RSR RS-09		1005																	-06	
RSR		948																	-07	
R-1		1137																	-08	
R-2		1130																	-09	
R-3		1154																	-10	

Relinquished by:

f2Bromberg

Date 8/9/02 Time 1920 Received by:

Remarks:

Relinquished by:

Date Time Received by:

Relinquished by:

Date Time Received by Laboratory:

Kiff

Bill to:



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 27938

Page 2 of 2

Project Contact (Hardcopy or PDF To):

George Converse

Company Address:

Woodland
ALGE 1386 E. Beamer

Phone No.:

FAX No.:

5

Project Number:

DP793

P.O. No.:

California EDF Report? Yes No

Recommended but not mandatory to complete this section:
Sampling Company Log Code: . . .

Project Name:

DP793

Project Address:

4035 Park Blvd
Oakland

Sample Designation

Sampling

Container

Preservative

Matrix

Date

Time

40 ml VOA

SLEEVE

HCl

HNO₃

ICE

NONE

WATER

SOIL

BTEX (8021B)

BTEX/TPH Gas/MTBE (8021B/M8015)

TPH as Diesel (M8015)

TPH as Motor Oil (M8015)

TPH Gas/BTEX/MTBE (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates (8260B)

7 Oxygenates (8260B)

Lead Scav. (1,2 DCA & 1,2 EDG - 8260B)

EPA 8260B (Full List)

Volatile Halocarbons (EPA 8260B)

Lead (742/1239.2) TOTAL (X) W.E.T. (X)

TAT

(12 hr/24 hr) / 48 hr/72 hr (TAT)

For Lab Use Only

T1
carbon discharge

8/6/02 1025 3 ✓ ✓ ✓ ✓ ✓

✓ 1205 ✓ ✓ ✓ ✓

Relinquished by:

42 Broadway

Date

8/6/02

Time

1420

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

080802

Time

1920

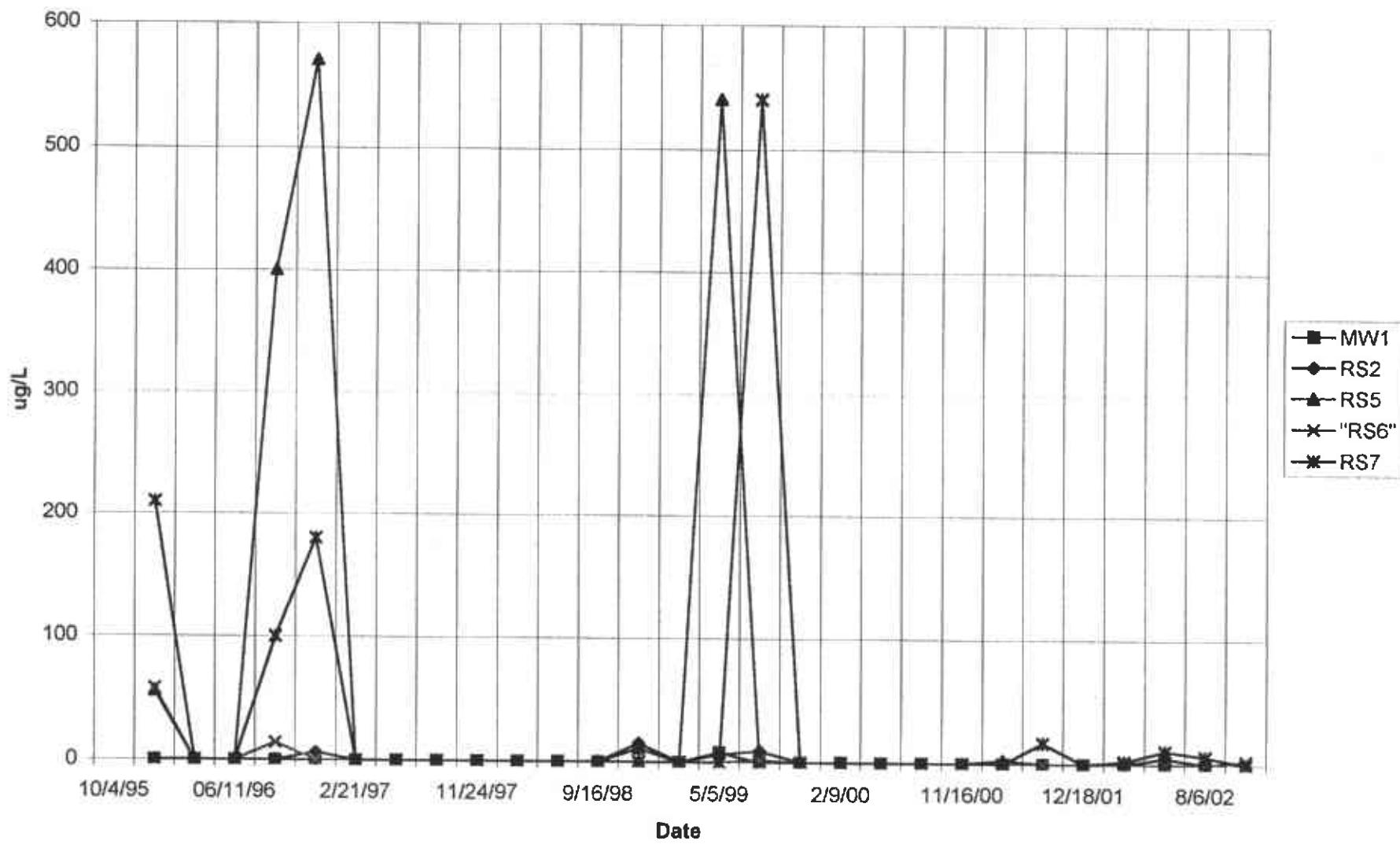
Received by Laboratory:

Osama Alborazi / KUT

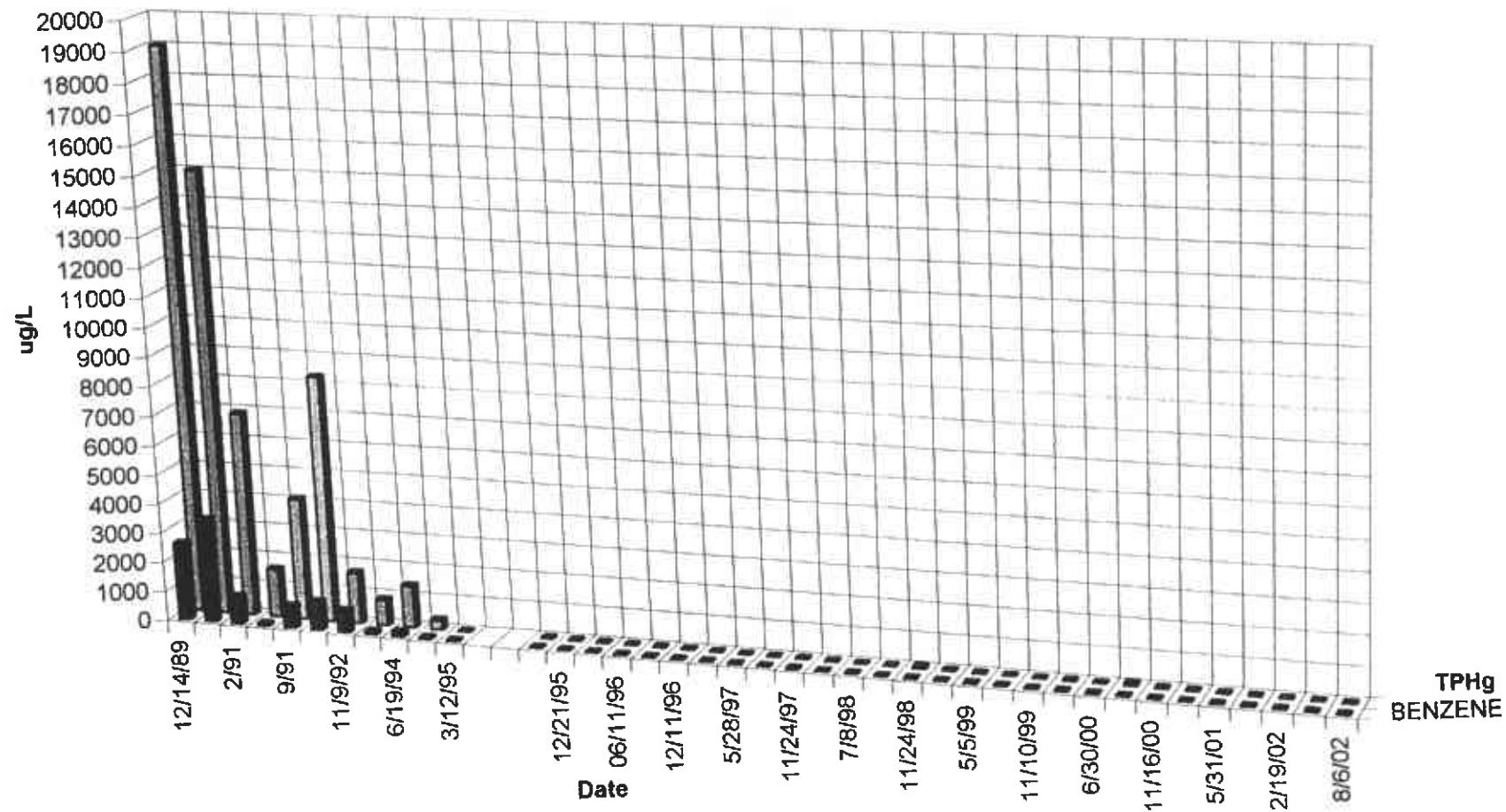
Bill to:

APPENDIX D.
MtBE, TPHg AND BENZENE CHARTS

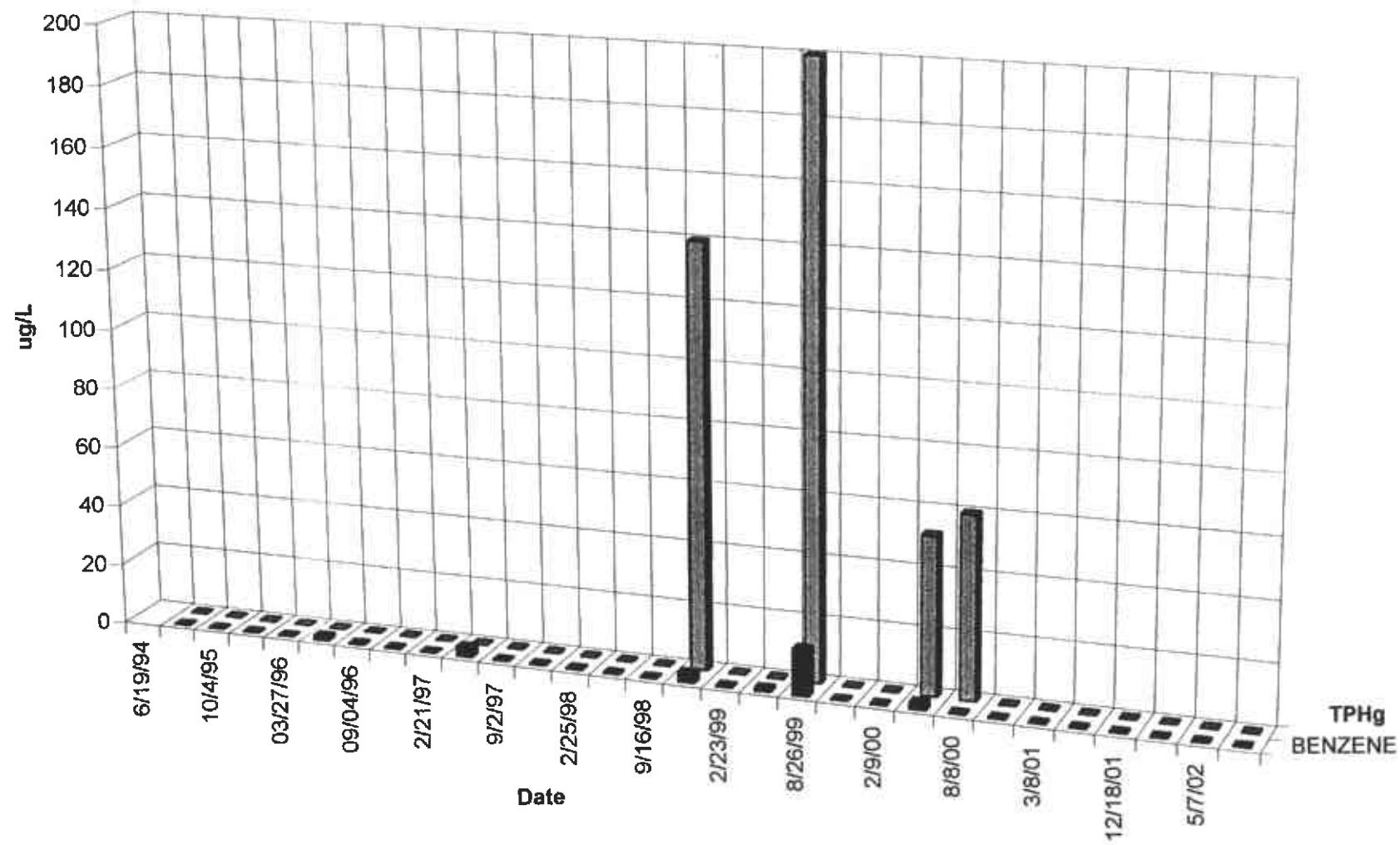
MTBE IN WELLS



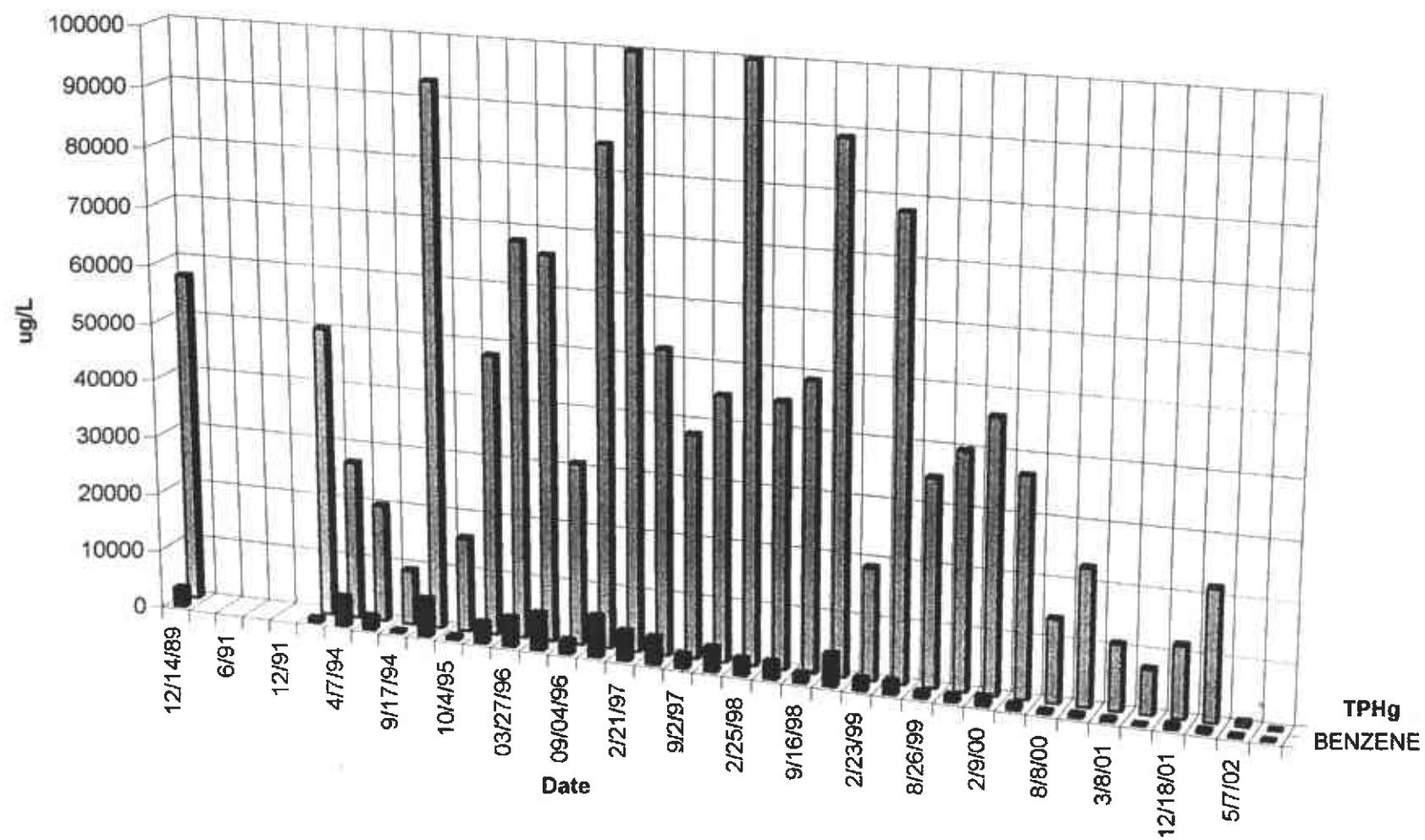
RS-1/MW-1 TPHg



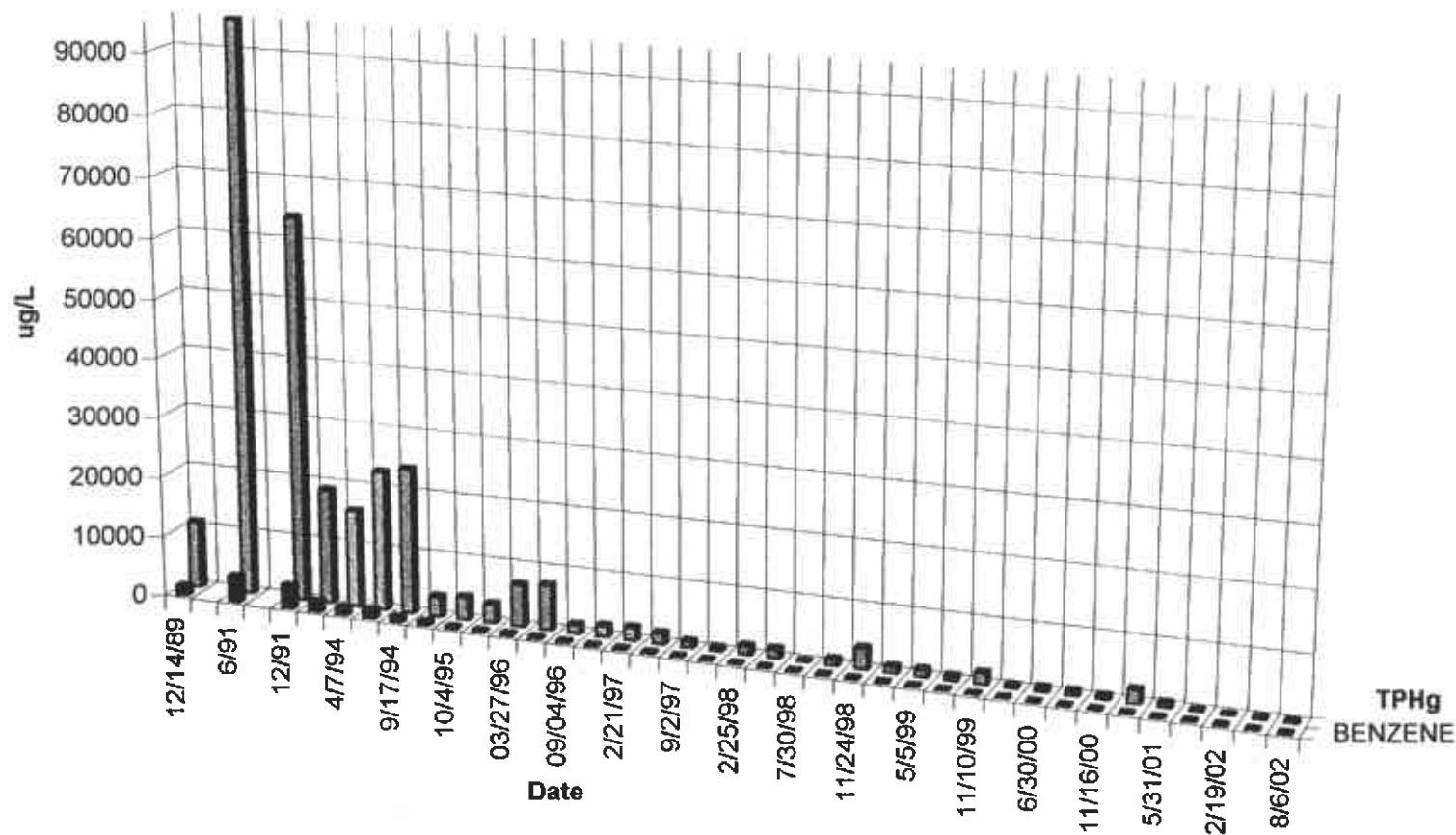
RS-2 TPHg



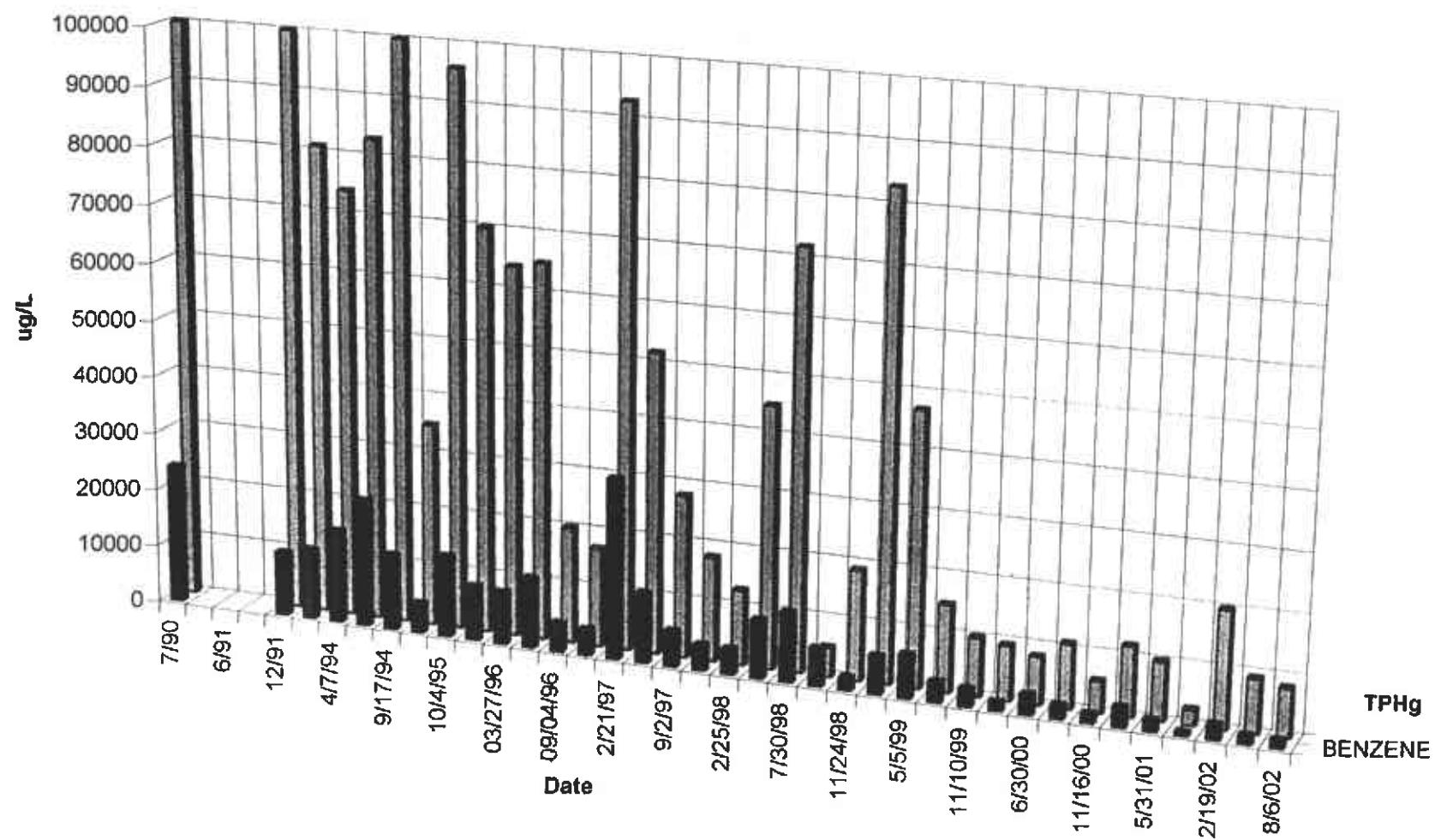
RS-5



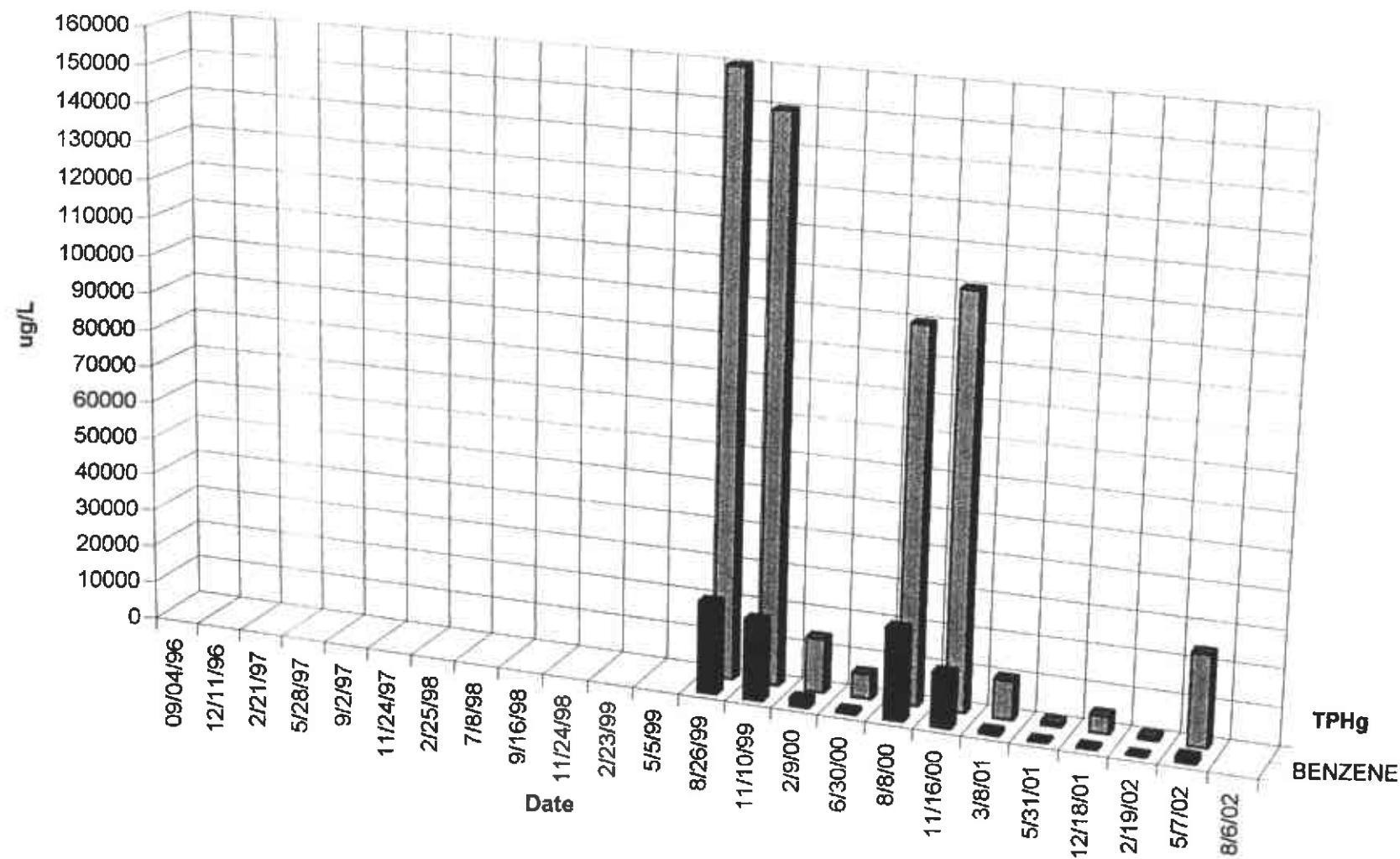
RS-6



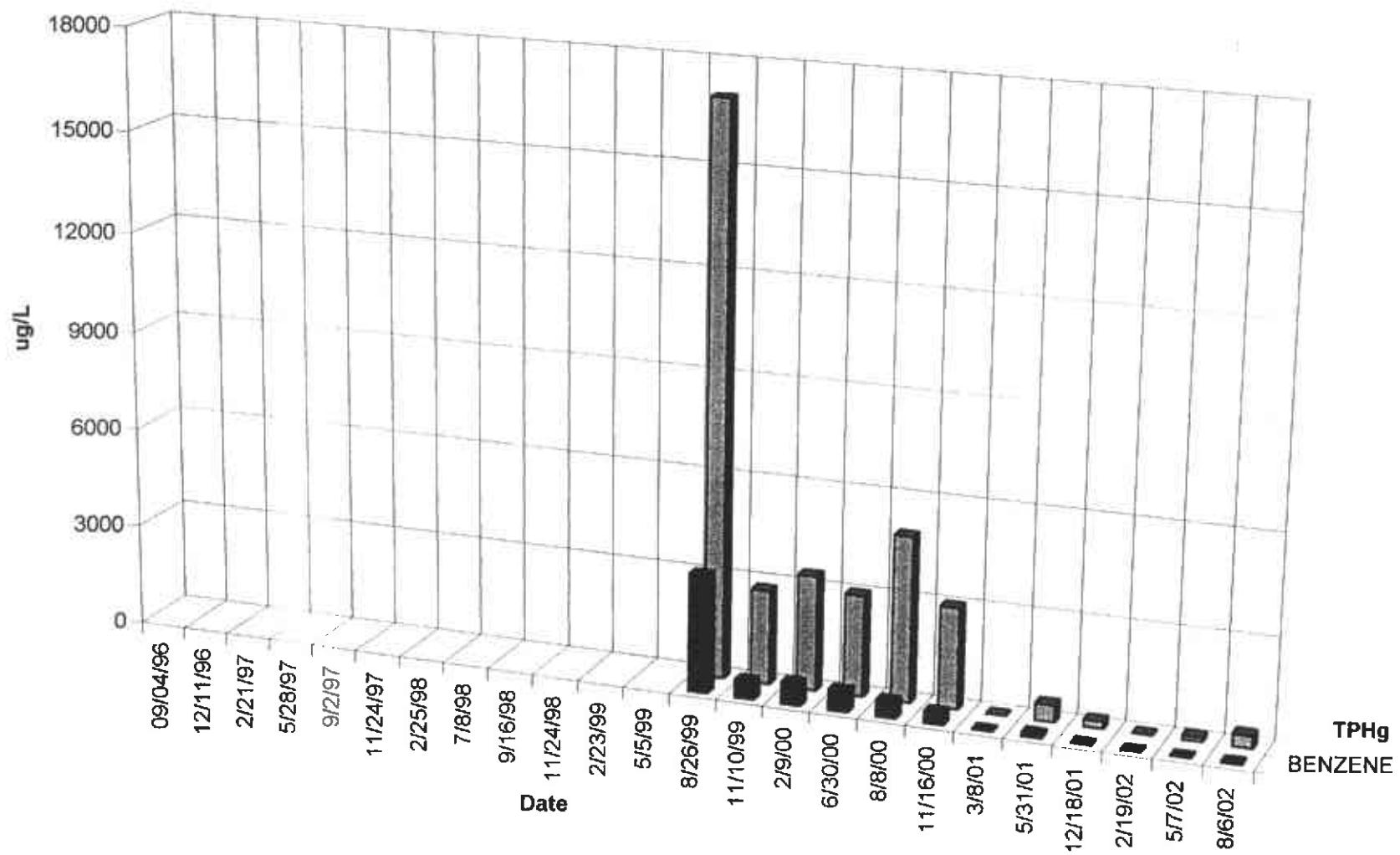
RS-7



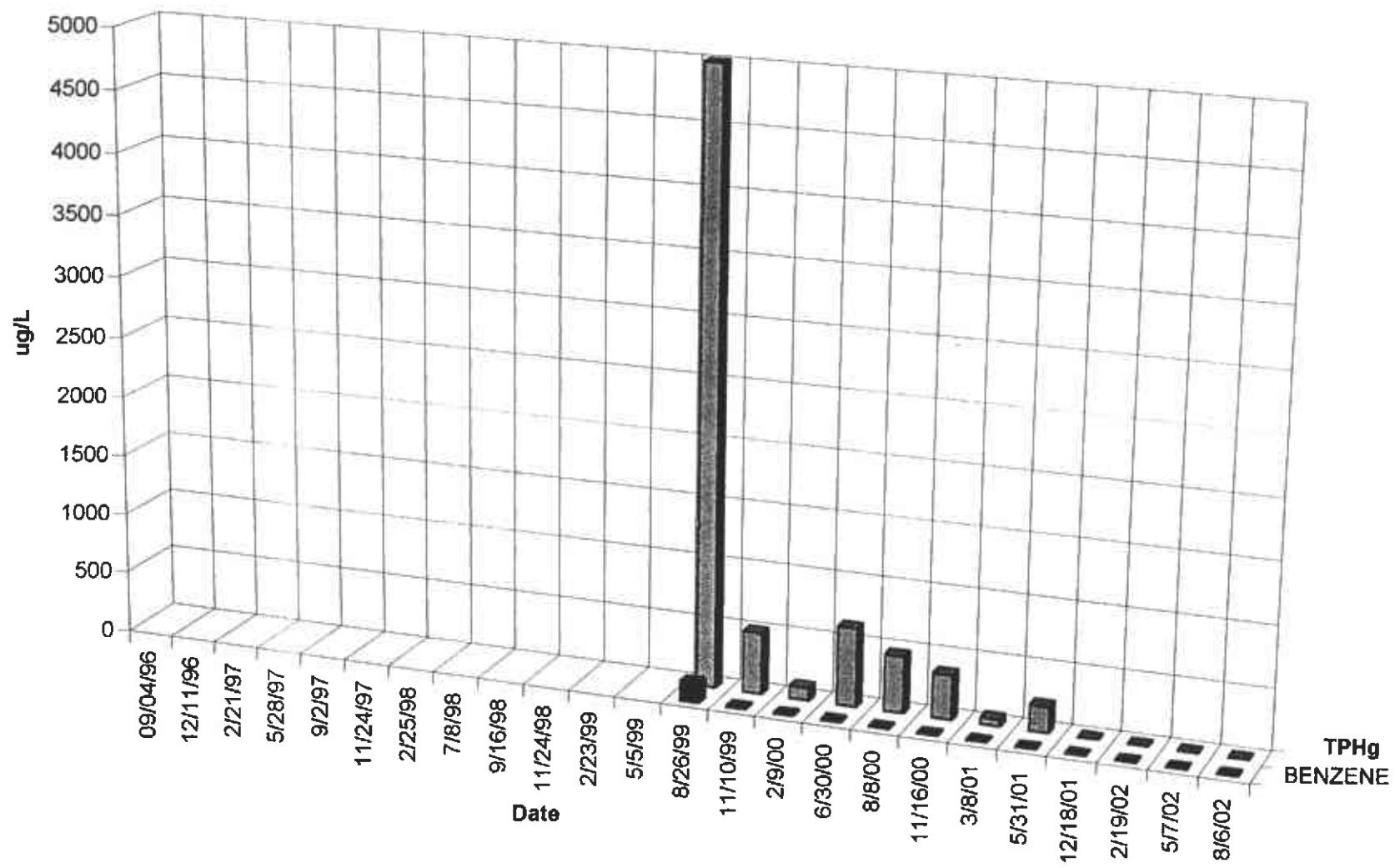
RS-8



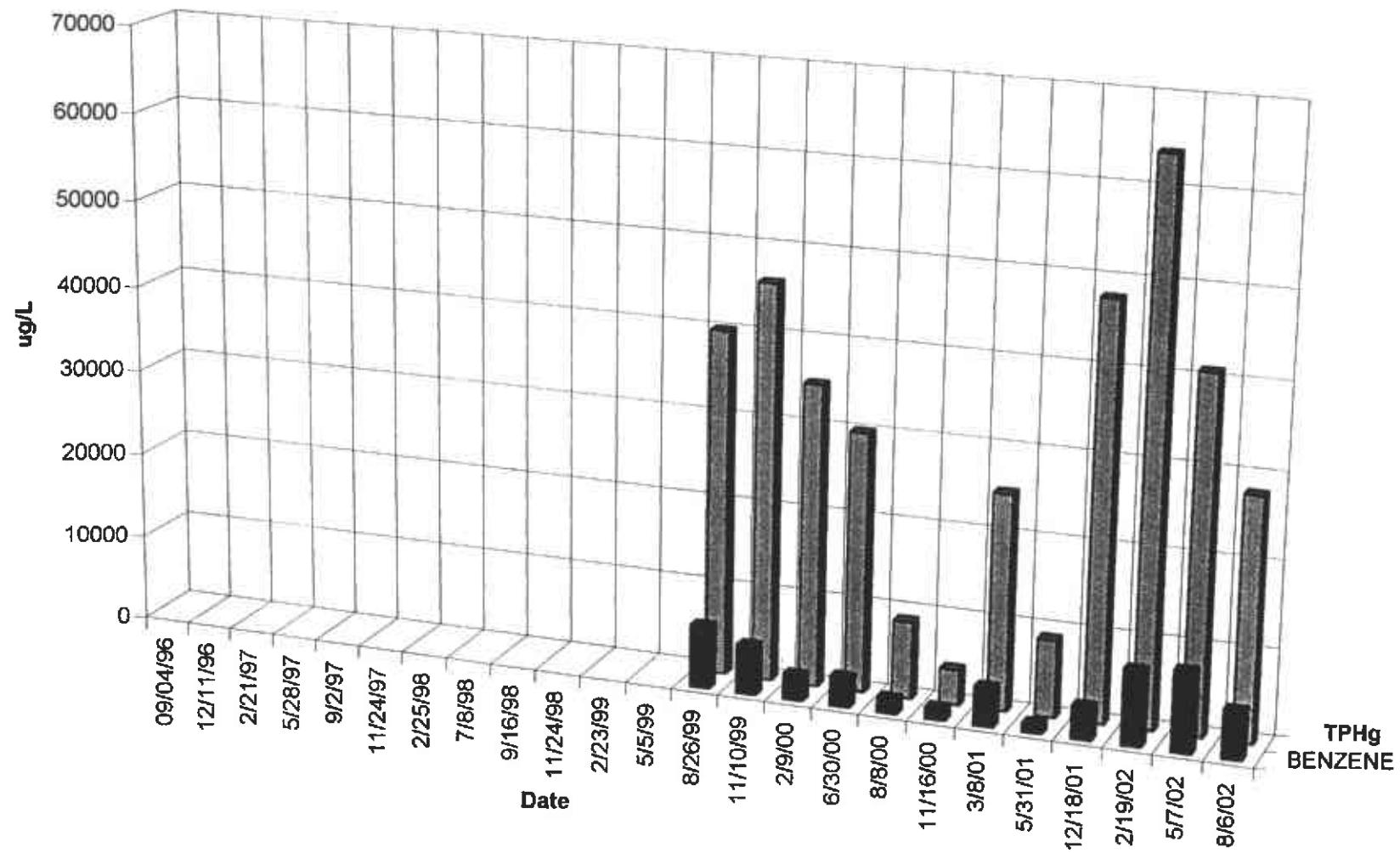
RS-9



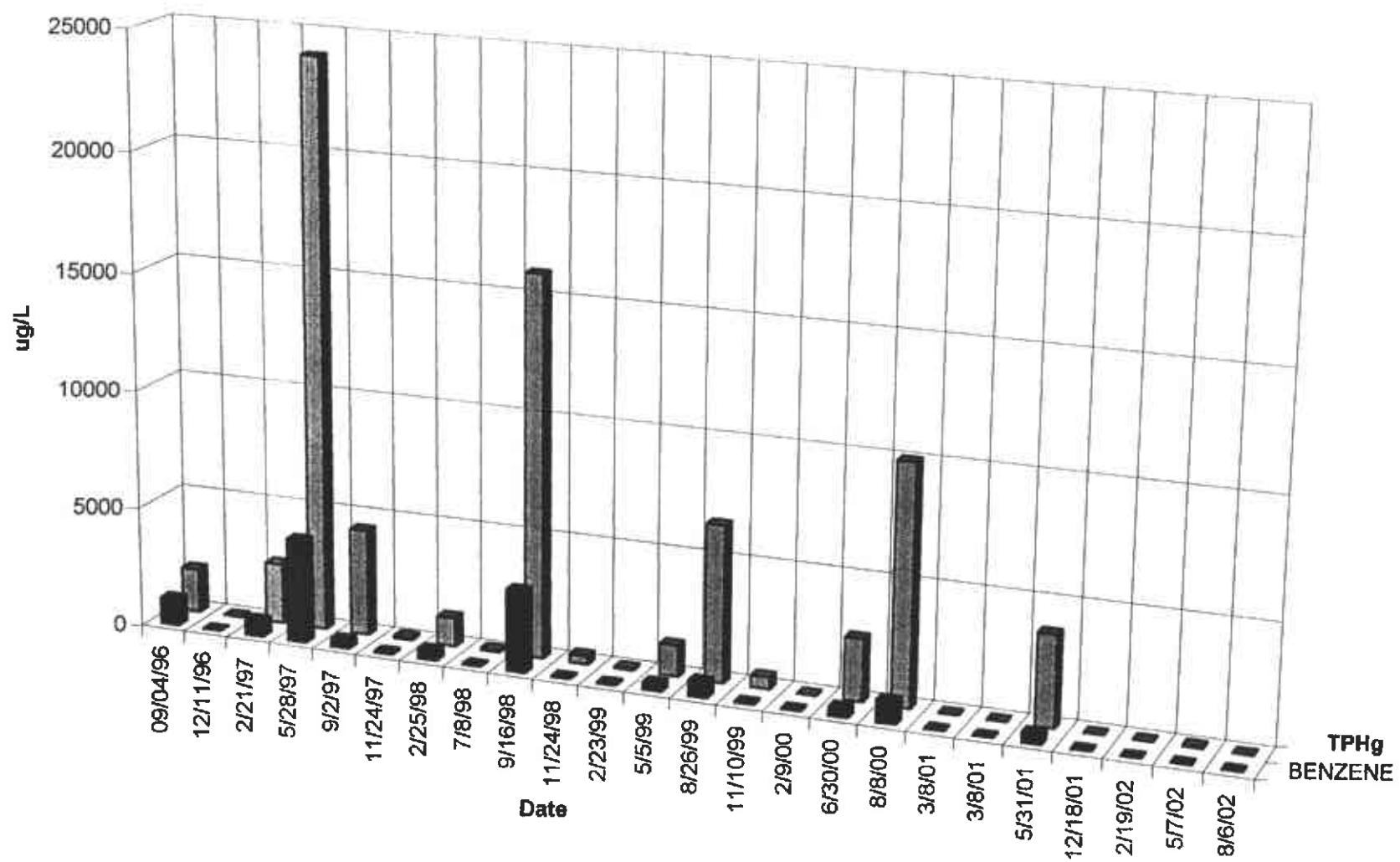
RS-10



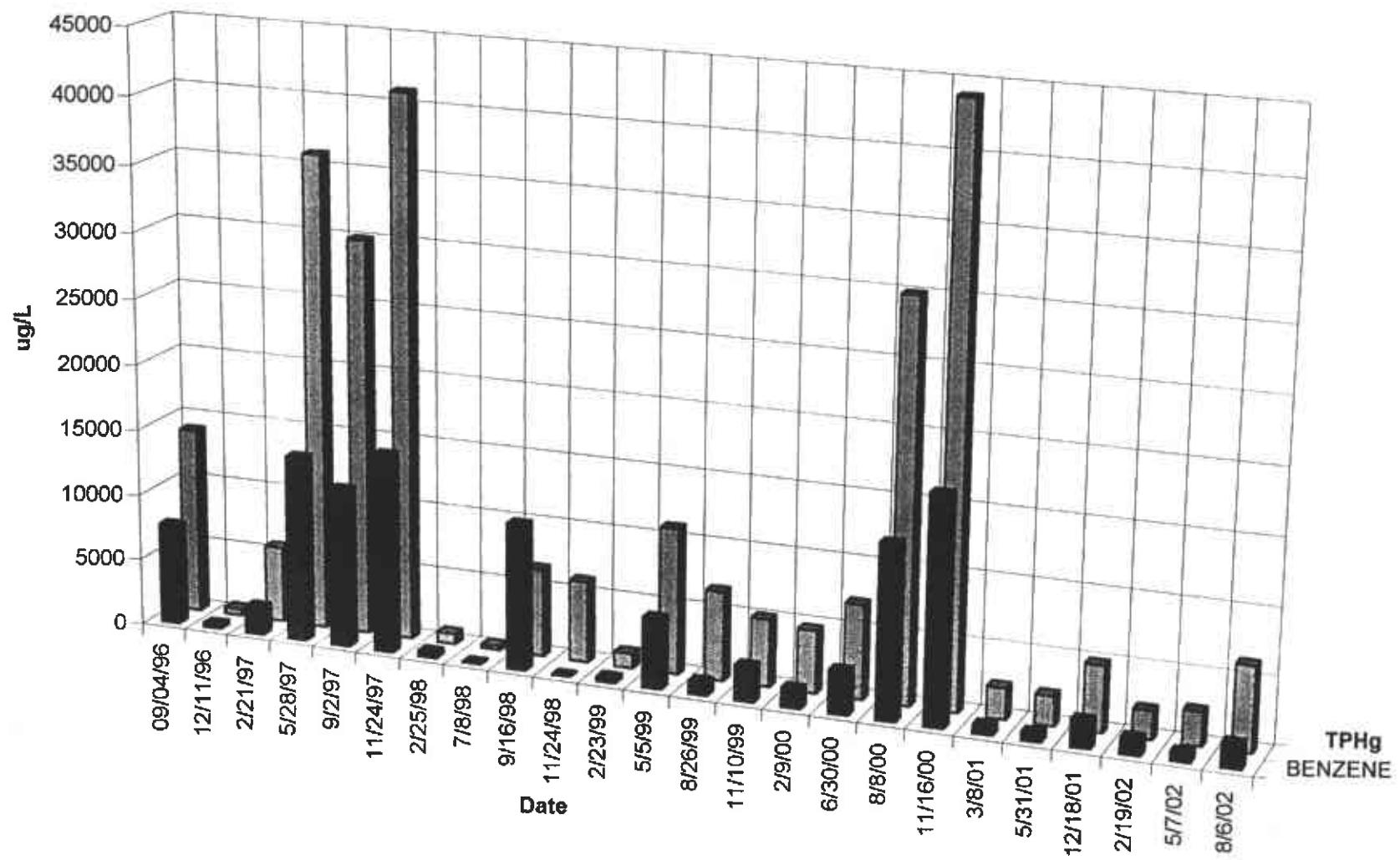
T-1



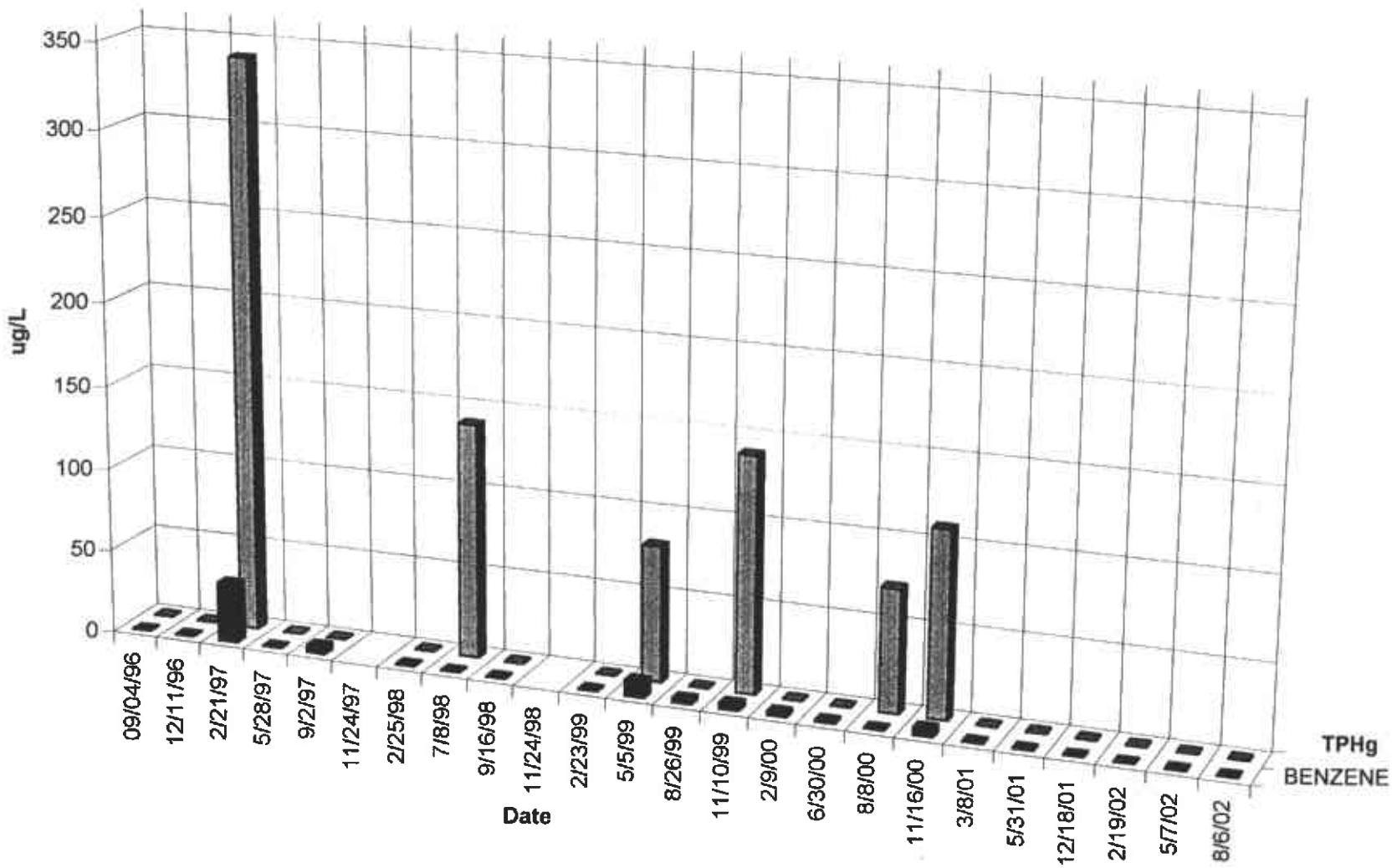
R-1



R-2



R-3



APPENDIX E

WASTEWATER DISCHARGE REPORT

desert petroleum inc.

Molly Ong.
Source Control Division
East Bay Municipal Utility District
P.O. Box 24055, MS 702
Oakland, CA 94623
(510) 287-1618
Fax (510) 287-0621

September 4, 2002

RE: Wastewater Discharge Quarterly Sampling for Permit #5043550 1.

Dear Ms. Ong:

The enclosed table and certified laboratory report represents the sampling for wastewater Discharge Permit #5043550 1 for the period between June 12, 2002 and September 4, 2002. Continues discharge from pumping at RS-5 was discontinued on July 19, 2001. This pumping was restarted on March 21, 2002 and is continuing as of this date. A sample of the water discharged to sewer was obtained on August 6, 2002 and analyzed for TPHg, BTEX and MtBE using EPA method 8260B.

All discharge conditions have been met.

CERTIFICATION East Bay Municipal Utility District, Permit #5043550 1

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.


Signature Bill Thompson

9/6/02
date

WASTEWATER DISCHARGE PERMIT # 5043550 1
 FORMER DP #793
 4035 PARK BLVD., OAKLAND, CALIFORNIA

WASTEWATER SOURCE ID	DATE	METER READING IN GALLONS #35635668 314110	NEW METER IN GALLONS #47083426	GALLONS DISCHARGED BETWEEN VISITS	ACCUMULATIVE GALLONS DISCHARGED	AVERAGE DISCHARGE PER MINUTE IN GALLONS	EPA METHOD 624 BENZENE ug/L	TOLUENE ug/L	ETHYL-BENZENE ug/L	XYLENES ug/L	LEAD ug/L
F1 (PSP No. 1)	2/22/01		1141123.6	3682	49804	0.37	start discharge from RS5				
F1 (PSP No. 1)	3/1/01		1150736.5	9613	59417	0.95	EPA METHOD 624				
F1 (PSP No. 1)	3/8/01		1158901.1	8165	67581	0.81	<1	<1	<1	<2	
F1 (PSP No. 1)	3/14/01		1162321.2	3420	71001	0.40					
F1 (PSP No. 1)	3/21/01		1162321.4	0	71001	0.00					
F1 (PSP No. 1)	4/4/01		1163471.7	1150	72152	0.06					
F1 (PSP No. 1)	4/12/01		1164723.5	1252	73404	0.11	EPA METHOD 8260B				
F1 (PSP No. 1)	4/19/01		1173267	8544	81947	0.85	<0.5	<0.5	<0.5	<0.5	
F1 (PSP No. 1)	5/3/01		1181423.5	8157	90104	0.40					
F1 (PSP No. 1)	5/10/01		1188209.3	6786	96889	0.67					
F1 (PSP No. 1)	5/16/01		1189899.1	1690	98579	0.20					
F1 (PSP No. 1)	5/24/01		1198018.4	8119	106698	0.70					
F1 (PSP No. 1)	5/31/01		1199647.8	1629	108328	0.16					
F1 (PSP No. 1)	6/6/01		1204217.2	4569	112897	0.53					
F1 (PSP No. 1)	6/14/01		1210661.4	6444	119341	0.56					
F1 (PSP No. 1)	6/21/01		1214600	3939	123280	0.39					
F1 (PSP No. 1)	6/28/01		1219387.7	4788	128068	0.47					
F1 (PSP No. 1)	7/5/01		1223625.4	4238	132305	0.42					
F1 (PSP No. 1)	7/12/01		1228500	4875	137180	0.48	EPA METHOD 8260B				
F1 (PSP No. 1)	7/19/01		1232750.7	4251	141431	0.42	<0.5	<0.5	<0.5	<0.5	
REMOVE PUMP AND DISCONTINUE SEWER DISCHARGE ON July 19, 2001, COMMENCE 1/4LY DISCHARGE											
F1 (PSP No. 1) 1/4LY SAMPLES	12/18/01			238	141669	5.00	<0.5	<0.5	<0.5	<0.5	MTBE
F1 (PSP No. 1) 1/4LY SAMPLES	2/19/02			246	141915	5.00	<0.5	<0.5	<0.5	<0.5	
F1 (PSP No. 1)	3/21/02		1235760	0	141915	2.00	place pump back into RS-5				
F1 (PSP No. 1)	3/27/02		1243817.8	8058	149973	0.93					
F1 (PSP No. 1)	4/11/02		1259678.6	15861	165833	0.73	<0.5	<0.5	<0.5	<0.5	
F1 (PSP No. 1)	5/7/02		1263903.1	24225	190058	0.65					
F1 (PSP No. 1)	6/6/02		1308480	24577	214635	0.57					
F1 (PSP No. 1)	7/18/02		1330934.8	22455	237090	0.37					
F1 (PSP No. 1)	8/6/02		1340694.7	9760	246849	0.36	<0.5	<0.5	<0.5	<0.5	

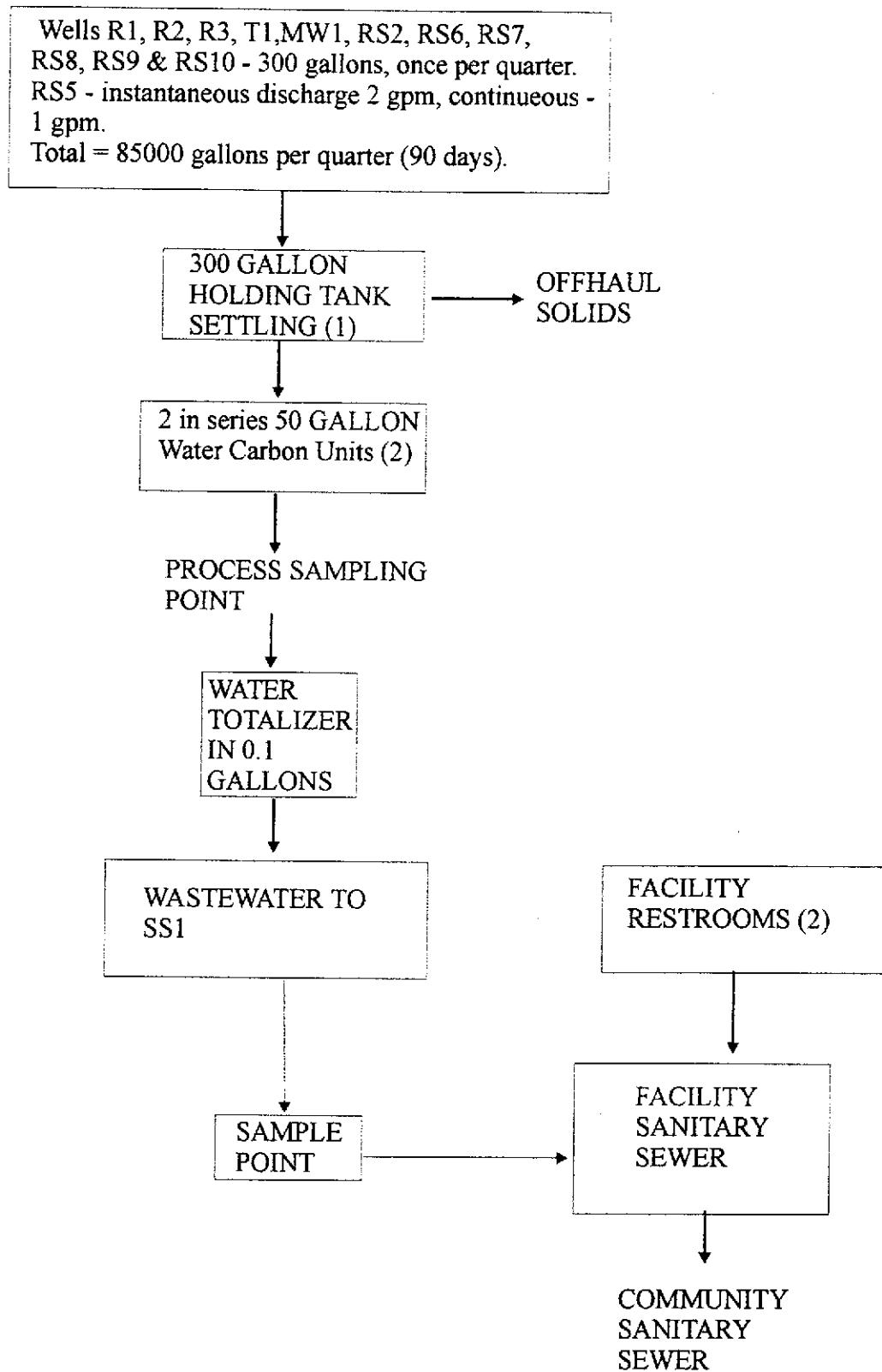
< BELOW LABORATORY LOWER DETECTION LIMITS

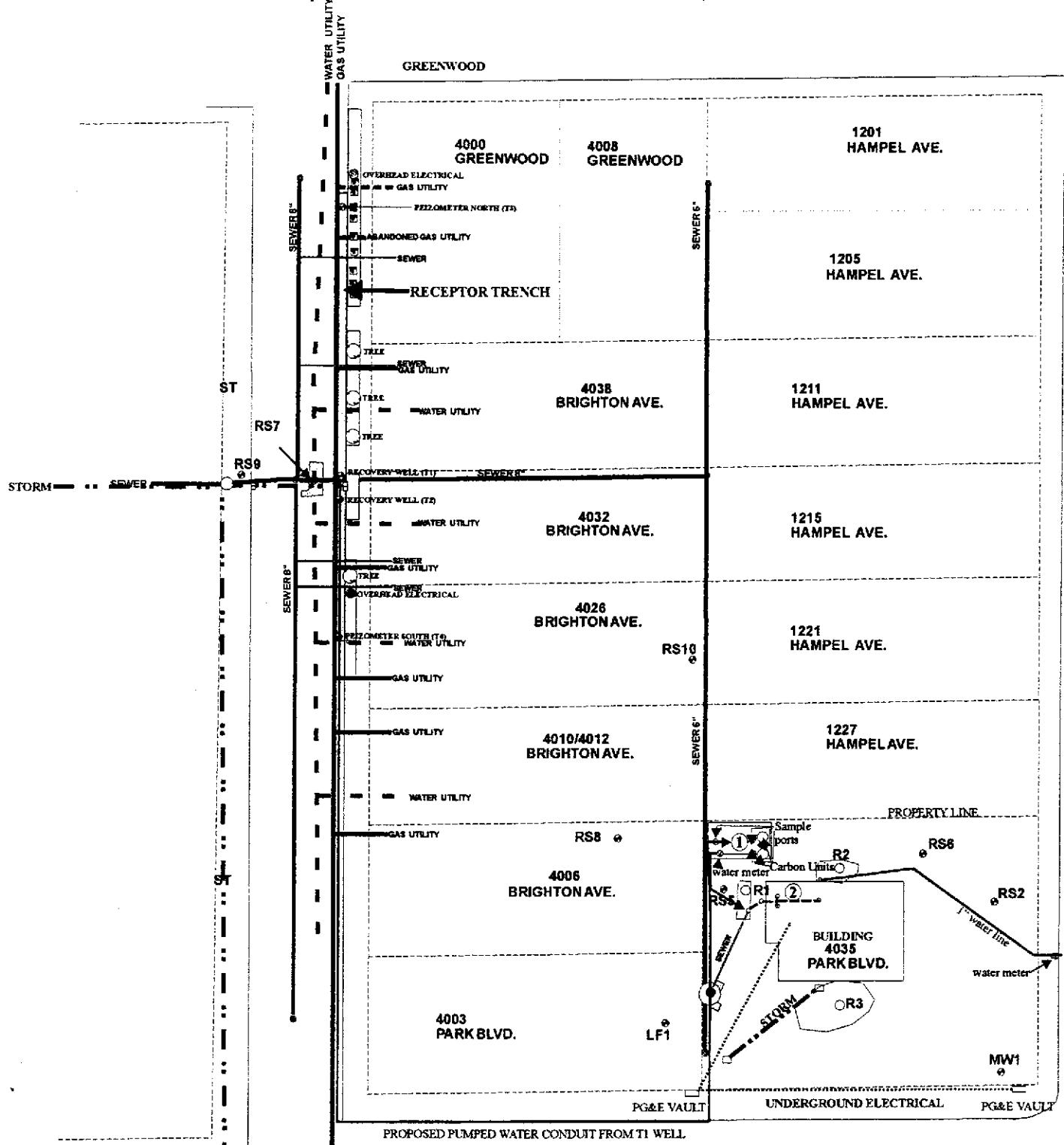
Note: water meter #47083426 did not function during initial test, substitute meter #35635668 used until cleaned and tested. Re-installed January 28, 2000.

Note: water meter difference from 7/19/2001 to 3/21/2002 is from use of meter at other sites to meter discharges when pumping was discontinued on 7/19/2001.

WATER DISCHARGED TO SEWER IS FROM PURGING OF T1, DISCHARGE FROM WELL RS5 AND PURGED WATER FROM 1/4LY SAMPLING.

Figure 1(Revised September 4, 2002)
Activity: GROUNDWATER RECOVERY AND DISCHARGE SYSTEM
FORMER DESERT PETROLEUM SITE DP 793.





WASTEWATER DISCHARGE

DP 793, 4035 PARK BLVD.
OAKLAND, CALIFORNIA
BUILDING LAYOUT AND LOCATION OF
RECEPTOR TRENCH
OCTOBER 29, 1999.

- MW1 GROUNDWATER
MONITORING WELL
① PROCESS NUMBER
* WATER METER

0' 20' 50'
SCALE: 1 INCH=50 FEET

NORTH
STORM



Report Number : 27938

Date : 8/14/2002

George Converse
Western Geo-Engineers
1386 East Beamer St.
Woodland, CA 95776

Subject : 12 Water Samples
Project Name : DP793
Project Number : DP793

Dear Mr. Converse,

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



Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

Sample : T1

Matrix : Water

Lab Number : 27938-11

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5500	25	ug/L	EPA 8260B	8/11/2002
Toluene	240	25	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	1300	25	ug/L	EPA 8260B	8/11/2002
Total Xylenes	2600	25	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	32	25	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	28000	2500	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	8/11/2002

Sample : CARBON DISCHARGE

Matrix : Water

Lab Number : 27938-12

Sample Date : 8/6/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/11/2002
Toluene - d8 (Surr)	108		% Recovery	EPA 8260B	8/11/2002
4-Bromofluorobenzene (Surr)	80.8		% Recovery	EPA 8260B	8/11/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27938

Date : 8/14/2002

QC Report : Method Blank Data

Project Name : DP793

Project Number : DP793

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/11/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/11/2002						
Toluene - d8 (Surr)	103		%	EPA 8260B	8/11/2002						
4-Bromofluorobenzene (Surr)	97.6		%	EPA 8260B	8/11/2002						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	8/10/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/10/2002						
Toluene - d8 (Surr)	91.3		%	EPA 8260B	8/10/2002						
4-Bromofluorobenzene (Surr)	88.7		%	EPA 8260B	8/10/2002						

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27938

Date : 8/14/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	8/11/02	116	70-130
Toluene	40.0	ug/L	EPA 8260B	8/11/02	111	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/11/02	98.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/11/02	86.0	70-130
Benzene	40.0	ug/L	EPA 8260B	8/10/02	108	70-130
Toluene	40.0	ug/L	EPA 8260B	8/10/02	93.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/10/02	103	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/10/02	94.2	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:

Joel Kiff

Joel Kiff

QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number : 27938

Date : 8/14/2002

Project Name : DP793

Project Number : DP793

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.	Relative Percent Diff.
Benzene	27941-02	<0.50	39.8	39.8	47.6	47.2	ug/L	EPA 8260B	8/11/02	120	118	0.987	70-130	25
Toluene	27941-02	<0.50	39.8	39.8	46.1	45.8	ug/L	EPA 8260B	8/11/02	116	115	0.672	70-130	25
Tert-Butanol	27941-02	18	199	199	226	218	ug/L	EPA 8260B	8/11/02	104	101	3.55	70-130	25
Methyl-t-Butyl Ether	27941-02	<0.50	39.8	39.8	35.4	35.2	ug/L	EPA 8260B	8/11/02	88.8	88.4	0.423	70-130	25
Benzene	27938-01	<0.50	40.0	40.0	43.2	42.1	ug/L	EPA 8260B	8/10/02	108	105	2.58	70-130	25
Toluene	27938-01	<0.50	40.0	40.0	39.4	38.3	ug/L	EPA 8260B	8/10/02	98.5	95.8	2.73	70-130	25
Tert-Butanol	27938-01	<5.0	200	200	203	201	ug/L	EPA 8260B	8/10/02	102	101	0.811	70-130	25
Methyl-t-Butyl Ether	27938-01	<0.50	40.0	40.0	40.0	39.9	ug/L	EPA 8260B	8/10/02	100	99.6	0.326	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff





720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 27938

Page 1 of 2

Project Contact (Hardcopy or PDF To):

George Converse

Company Address:

WEGE 1386 E. Bearcat Woodland CA

Phone No.:

530-668-5300

P.O. No.:
DP793

Project Name:

DP793

Project Address:

4035 PARK BLVD
OAKLAND

Sample Designation

RS4 RS-04
RS2 RS-02
RS5 RS-05
RS6 RS-06
RS7 RS-07
RS8 RS-09
RS10 RS-10
R-1 R-1
R-2 R-2
R-3 R-3

California EDF Report? Yes No

Recommended but not mandatory to complete this section:
Sampling Company Log Code: W-G-EW

Global ID:
7-0-6-6-0-1-0-0-1-5-8

EDF Deliverable To (Email Address):
wego@mother.com

Sampler Signature:
L. Z. Banday

Sampling	Container	Preservative	Matrix	BTEX (8221B)	BTEX/TPH Gas/MtBE (8221B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MtBE (8260B)	5 Organics/TPH Gas/BTEX (8260B)	7 Organics/TPH Gas/BTEX (8260B)	5 Organics (8260B)	7 Organics (8260B)	Lead Scr. (1.2 DCA & 1.2 ED8 - 8260B)	EPA 8260B (Final List)	Volatile Halocarbons (EPA 8260B)	Total (Q) W.E.T. (g)	
				Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	ANONE	WATER	SOIL				
RS4 RS-04	8/6/02 1042	3						✓									
RS2 RS-02		1055															-01
RS5 RS-05		1142															-02
RS6 RS-06		1116															-03
RS7 RS-07		1018															-04
RS8 RS-09		1005															-05
RS10 RS-10		948															-06
R-1		1137															-07
R-2		1130															-08
R-3		1154															-09
Relinquished by:		Date	Time	Received by:													-10
<i>L. Z. Banday</i>		8/8/02	1920														
Relinquished by:		Date	Time	Received by:													
Relinquished by:		Date	Time	Received by Laboratory:													
		08/08/02	1920	Osama Abdulla / kitt													

Chain-of-Custody Record and Analysis Request

Analysis Request

12 hr/24 hr/48 hr/72 hr/ TAT

For Lab Use



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 27938

Page 2 of 2

Project Contact (Hardcopy or PDF To):

George Converse

Company Address:

George 1386 E. Beamer Woodland

Phone No.:

FAX No.:
5

Project Number:

DP793

P.O. No.:

California EDF Report? Yes No

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

Global ID:

T-P-6-6-B-105-B-1-5-8

EDF Deliverable To (Email Address):

Sampler Signature:

K2 Broadway

Project Address:

4035 Park Blvd
Oakland

Sample Designation

T1
carbon discharge

Sampling

Container

Preservative

Matrix

Date

Time

40 ml VOA

SLEEVE

HCl

HNO₃

ICE

NONE

WATER

SOIL

BTEX (8021B)

BTEX/TPH Gas/MTBE (8021B/M8015)

TPH as Diesel (M8015)

TPH as Motor Oil (M8015)

TPH Gas/BTEX/MTBE (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates (8260B)

7 Oxygenates (8260B)

Lead Scav. (1:2 DCA & 1:2 EDB - 8260B)

EPA 8260B (Full List)

Volatile Halocarbons (EPA 8260B)

Lead (7421/239.2) TOTAL (X) WET (X)

TAT

For Lab Use Only

12 hr/24 hr/48 hr/72 hr

-11
-12

Chain-of-Custody Record and Analysis Request

Analysis Request

Relinquished by:

K2 Broadway

Date
8/8/02

Time
1920

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date
08/08/02

Time
1920

Received by Laboratory:

Osama Albalwi / KJL

Bill to:



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4803

Page 1 of 1

Project Manager:
George Converse

Company/Address:
Wage 1100 1000

Project Number:
111793

P.O. No.:
111793

Project Name/Location:
111793 - Landfill Mukilteo

Phone No.:
707 667 5700

FAX No.:
707 662 027

Email Address:
george.converse@kiff.com

.pdf .xls .doc other

Sampler Signature:
George Converse

Lab No.

Chain-of-Custody Record and Analysis Request

Analysis Request

Sample Designation
Sediment /soil

Sampling

Date
4/19/01

Time
12:45:22

Container
(Type/Amount)

HCl
40 ml VOA

SLEEVE

Method
Preserved

HNO₃

ICE

NONE

Matrix

WATER/SOIL

BTEX (8201B)

✓

TPH Gas/MTBE (8021B/M8015)

✓

TPH as Diesel (M8015)

✓

TPH as Motor Oil (M8015)

✓

TPH Gas/BTEX/MTBE (8260B)

✓

5 Oxygenates/TPH Gas/BTEX (8260B)

✓

7 Oxygenates/TPH Gas/BTEX (8260B)

✓

5 Oxygenates (8260B)

✓

7 Oxygenates (8260B)

✓

Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)

✓

EPA 8260B (Full List)

✓

Volatile Halocarbons (EPA 8260B)

✓

Lead (7421/239.2)

✓

TOTAL (X) W.E.T. (X)

12 hr/24 hr/48 hr/72 hr/1 wk

✓

12 hr = Results by 9 a.m. of the next bus. day
24 hr = Results by 5 p.m. of the next bus. day
48 hr = Results by 5 p.m. of the 2nd bus. day
72 hr = Results by 5 p.m. of the 3rd bus. day
1 wk = Results by 5 p.m. of the 5th bus. day

TAT

✓

For Lab Use Only

Remarks:

Relinquished by:
George Converse

Date
4/20/01

Time
17:00

Received by:
referred

Relinquished by:
George Converse

Date
4/20/01

Time
1725

Received by:

Relinquished by:
George Converse

Date
04/20/01

Time
1725

Received by Laboratory:
Scott Clark / KIFF ANALYTICAL

Bill to:



720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. _____
Page ____ of ____

Project Contact (Hardcopy or PDF To):

George Cope

California EDF Report? Yes No

Company/Address:

WICF 1200 1/2 mile N of Hwy 127

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

WGCN

Phone No.:

530-297-5793

FAX No.:

530-662-4700

Global ID:

.....

Project Number:

DP793

P.O. No.:

WICF.org

EDF Deliverable To (Email Address):

WICF.org

Project Name:

DP793

Sampler Signature:

Project Address:

4035 Park Blvd

Oakland

Sample Designation

Rain

Sampling

Date

Time

40 ml VOA
SLEEVE

Container

Preservative

Matrix

HCl

HNO₃

ICE

NONE

WATER

SOIL

BTEX (8021B)

BTEX/TPH Gas/MTBE (8021B/M8015)

TPH as Diesel (M8015)

TPH as Motor Oil (M8015)

TPH Gas/BTEX/MTBE (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates (8260B)

7 Oxygenates (8260B)

Lead Scav (1/2 DCA & 1/2 EDB - 8260B)

EPA 8260B (Full List)

Volatile Halocarbons (EPA 8260B)

Lead (7421/239.2) TOTAL (X) W.E.T. (X)

12 hr/24 hr/48 hr/72 hr/1 wk

TAT

For Lab Only

Chain-of-Custody Record and Analysis Request

Analysis Request

Relinquished by:

Date

Time

Received by:

Remarks:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

Time

Received by Laboratory:



Report Number : 28557

Date : 9/17/2002

George Converse
Western Geo-Engineers
1386 East Beamer St.
Woodland, CA 95776

Subject : 2 Water Samples
Project Name : DP793
Project Number : DP793

Dear Mr. Converse,

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,

A handwritten signature in black ink that reads "Joel Kiff".

Joel Kiff



Report Number : 28557

Date : 9/17/2002

Project Name : DP793

Project Number : DP793

Sample : RS-05

Matrix : Water

Lab Number : 28557-01

Sample Date : 9/12/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	270	0.50	ug/L	EPA 8260B	9/14/2002
Toluene	330	2.5	ug/L	EPA 8260B	9/17/2002
Ethylbenzene	130	0.50	ug/L	EPA 8260B	9/14/2002
Total Xylenes	1100	2.5	ug/L	EPA 8260B	9/17/2002
Methyl-t-butyl ether (MTBE)	2.0	0.50	ug/L	EPA 8260B	9/14/2002
TPH as Gasoline	12000	250	ug/L	EPA 8260B	9/17/2002
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	9/14/2002
4-Bromofluorobenzene (Surr)	99.4		% Recovery	EPA 8260B	9/14/2002

Sample : CARBON DISCHARGE

Matrix : Water

Lab Number : 28557-02

Sample Date : 9/12/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/14/2002
Toluene - d8 (Sum)	103		% Recovery	EPA 8260B	9/14/2002
4-Bromofluorobenzene (Sum)	98.3		% Recovery	EPA 8260B	9/14/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28557

Date : 9/17/2002

QC Report : Method Blank Data

Project Name : DP793

Project Number : DP793

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/16/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/16/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/16/2002						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Toluene - d8 (Surf)	97.8		%	EPA 8260B	9/14/2002						
4-Bromofluorobenzene (Surf)	98.5		%	EPA 8260B	9/14/2002						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/14/2002						
Toluene - d8 (Surf)	108		%	EPA 8260B	9/14/2002						
4-Bromofluorobenzene (Surf)	94.0		%	EPA 8260B	9/14/2002						

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28557

Date : 9/17/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793

Project Number : DP793

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	28617-02	<0.50	40.0	40.0	42.5	41.8	ug/L	EPA 8260B	9/17/02	106	104	1.75	70-130	25
Toluene	28617-02	<0.50	40.0	40.0	41.3	40.6	ug/L	EPA 8260B	9/17/02	103	102	1.61	70-130	25
Tert-Butanol	28617-02	<5.0	200	200	222	218	ug/L	EPA 8260B	9/17/02	111	109	1.84	70-130	25
Methyl-t-Butyl Ether	28617-02	<0.50	40.0	40.0	37.3	37.3	ug/L	EPA 8260B	9/17/02	93.2	93.3	0.0536	70-130	25
Benzene	28600-04	<0.50	40.0	40.0	41.1	40.1	ug/L	EPA 8260B	9/14/02	103	100	2.49	70-130	25
Toluene	28600-04	<0.50	40.0	40.0	39.4	38.7	ug/L	EPA 8260B	9/14/02	98.6	96.6	2.00	70-130	25
Tert-Butanol	28600-04	<5.0	200	200	182	194	ug/L	EPA 8260B	9/14/02	91.2	97.1	6.36	70-130	25
Methyl-t-Butyl Ether	28600-04	37	40.0	40.0	73.2	72.3	ug/L	EPA 8260B	9/14/02	90.4	88.2	2.46	70-130	25
Benzene	28570-29	<0.50	40.0	40.0	40.2	39.2	ug/L	EPA 8260B	9/14/02	100	98.1	2.27	70-130	25
Toluene	28570-29	<0.50	40.0	40.0	45.8	44.4	ug/L	EPA 8260B	9/14/02	114	111	3.04	70-130	25
Tert-Butanol	28570-29	8.0	200	200	203	217	ug/L	EPA 8260B	9/14/02	97.5	105	7.06	70-130	25
Methyl-t-Butyl Ether	28570-29	7.7	40.0	40.0	42.8	43.5	ug/L	EPA 8260B	9/14/02	87.8	89.6	2.00	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 28557

Date : 9/17/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/16/02	97.8	70-130
Toluene	40.0	ug/L	EPA 8260B	9/16/02	100	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/16/02	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/16/02	87.2	70-130
Benzene	40.0	ug/L	EPA 8260B	9/14/02	102	70-130
Toluene	40.0	ug/L	EPA 8260B	9/14/02	97.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/14/02	96.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/14/02	87.5	70-130
Benzene	40.0	ug/L	EPA 8260B	9/14/02	97.5	70-130
Toluene	40.0	ug/L	EPA 8260B	9/14/02	107	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/14/02	110	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/14/02	84.3	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff





720 Olive Drive, Suite D
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 28557

Page ____ of ____

Project Contact (Hardcopy or PDF To):

George Converse

Company/Address:

WEGE 1386 Beamer Woodland CA 95776

Phone No.:

530-668-5300

FAX No.: 530 662 0272

Project Number:

DP773

P.O. No:

Project Name:

DP773

Project Address:

*4835 Park Blvd
Oakland*

California EDF Report? Yes No

Recommended but not mandatory to complete this section:

Sampling Company Log Code: *WGEA*

Global ID:

EDF Deliverable To (Email Address):

wego@mother.com

Sampler Signature:

J. J. Barnaby

Sampling	Container	Preservative	Matrix	Analysis Request												For Lab Use Only
				BTEX (802B)	BTEX/TPH Gas/MTBE (8021B)/MS8015	TPH as Diesel (MS8015)	TPH as Motor Oil (MS8015)	TPH Gas/BTEX/MTBE (8280B)	5 Oxygenates/TPH Gas/BTEX (8280B)	7 Oxygenates/TPH Gas/BTEX (8280B)	5 Oxygenates (8280B)	7 Oxygenates (8280B)	Lead Scav. (1,2-DCA & 1,2-EDB - 8280B)	EPA 8280B (Full List)	Volatile Halocarbons (EPA 8280B)	Lead (7421/238.2) TOTAL (X) W.E.T. (X)
Date	Time	40 ml VOA SLEEVE		HCl	HNO ₃	ICE	NONE	WATER	SOIL							
RS-05	9/17/02 948	3		✓	✓			✓		✓						12 hr/24 hr/48 hr/72 hr/ <i>(initials)</i>
Carbon Discharge	" 1000	3		✓	✓			✓		✓						01 02

Relinquished by: <i>J. J. Barnaby</i>	Date 9/17/02	Time 1555	Received by:	Remarks:
Relinquished by: <i>J. J. Barnaby</i>	Date	Time	Received by:	Bill to:
Relinquished by: <i>M. Woodworth</i>	Date 09/12/02	Time 1555	Received by Laboratory: <i>M. Woodworth / Kiff Analytical</i>	Forms/oc 121001.fne

Distribution: White - Lab, Yellow - File, Pink - Originator



Report Number : 28557

Date : 9/17/2002

George Converse
Western Geo-Engineers
1386 East Beamer St.
Woodland, CA 95776

Subject : 2 Water Samples
Project Name : DP793
Project Number : DP793

Dear Mr. Converse,

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,

A handwritten signature in black ink that reads "Joel Kiff". Below the signature, the name "Joel Kiff" is printed in a small, black, sans-serif font.



Report Number : 28557

Date : 9/17/2002

Project Name : DP793

Project Number : DP793

Sample : RS-05

Matrix : Water

Lab Number : 28557-01

Sample Date : 9/12/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	270	0.50	ug/L	EPA 8260B	9/14/2002
Toluene	330	2.5	ug/L	EPA 8260B	9/17/2002
Ethylbenzene	130	0.50	ug/L	EPA 8260B	9/14/2002
Total Xylenes	1100	2.5	ug/L	EPA 8260B	9/17/2002
Methyl-t-butyl ether (MTBE)	2.0	0.50	ug/L	EPA 8260B	9/14/2002
TPH as Gasoline	12000	250	ug/L	EPA 8260B	9/17/2002
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	9/14/2002
4-Bromofluorobenzene (Surr)	99.4		% Recovery	EPA 8260B	9/14/2002

Sample : CARBON DISCHARGE

Matrix : Water

Lab Number : 28557-02

Sample Date : 9/12/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/14/2002
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	9/14/2002
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	9/14/2002

Approved By: Joel Kiff

Report Number : 28557

Date : 9/17/2002

QC Report : Method Blank Data

Project Name : DP793

Project Number : DP793

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/16/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/16/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/16/2002						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Toluene - d8 (Surrogate)	97.8		%	EPA 8260B	9/14/2002						
4-Bromofluorobenzene (Surrogate)	98.5		%	EPA 8260B	9/14/2002						
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	9/14/2002						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/14/2002						
Toluene - d8 (Surrogate)	108		%	EPA 8260B	9/14/2002						
4-Bromofluorobenzene (Surrogate)	94.0		%	EPA 8260B	9/14/2002						

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 28557

Date : 9/17/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : DP793

Project Number : DP793

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	28617-02	<0.50	40.0	40.0	42.5	41.8	ug/L	EPA 8260B	9/17/02	106	104	1.75	70-130	25
Toluene	28617-02	<0.50	40.0	40.0	41.3	40.6	ug/L	EPA 8260B	9/17/02	103	102	1.61	70-130	25
Tert-Butanol	28617-02	<5.0	200	200	222	218	ug/L	EPA 8260B	9/17/02	111	109	1.84	70-130	25
Methyl-t-Butyl Ether	28617-02	<0.50	40.0	40.0	37.3	37.3	ug/L	EPA 8260B	9/17/02	93.2	93.3	0.0536	70-130	25
Benzene	28600-04	<0.50	40.0	40.0	41.1	40.1	ug/L	EPA 8260B	9/14/02	103	100	2.49	70-130	25
Toluene	28600-04	<0.50	40.0	40.0	39.4	38.7	ug/L	EPA 8260B	9/14/02	98.6	96.6	2.00	70-130	25
Tert-Butanol	28600-04	<5.0	200	200	182	194	ug/L	EPA 8260B	9/14/02	91.2	97.1	6.36	70-130	25
Methyl-t-Butyl Ether	28600-04	37	40.0	40.0	73.2	72.3	ug/L	EPA 8260B	9/14/02	90.4	88.2	2.46	70-130	25
Benzene	28570-29	<0.50	40.0	40.0	40.2	39.2	ug/L	EPA 8260B	9/14/02	100	98.1	2.27	70-130	25
Toluene	28570-29	<0.50	40.0	40.0	45.8	44.4	ug/L	EPA 8260B	9/14/02	114	111	3.04	70-130	25
Tert-Butanol	28570-29	8.0	200	200	203	217	ug/L	EPA 8260B	9/14/02	97.5	105	7.06	70-130	25
Methyl-t-Butyl Ether	28570-29	7.7	40.0	40.0	42.8	43.5	ug/L	EPA 8260B	9/14/02	87.8	89.6	2.00	70-130	25

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 28557

Date : 9/17/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : DP793

Project Number : DP793

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/16/02	97.8	70-130
Toluene	40.0	ug/L	EPA 8260B	9/16/02	100	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/16/02	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/16/02	87.2	70-130
Benzene	40.0	ug/L	EPA 8260B	9/14/02	102	70-130
Toluene	40.0	ug/L	EPA 8260B	9/14/02	97.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/14/02	96.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/14/02	87.5	70-130
Benzene	40.0	ug/L	EPA 8260B	9/14/02	97.5	70-130
Toluene	40.0	ug/L	EPA 8260B	9/14/02	107	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/14/02	110	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/14/02	84.3	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By: Joel Kiff





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Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 28557

Page ____ of ____

Project Contact (Hardcopy or PDF To):

George Converse

Company/Address:

WEGE 1386 Beamer Woodland CA 95776

Phone No.:

530-668-5300

FAX No.: 530 662 0272

Project Number:

DP793

P.O. No.:

Project Name:

DP793

Project Address:

4035 Park Blvd
Oakland

Sample Designation

RS-05
Carbon Discharge

Sampling

Container

Preservative

Matrix

Date

Time

40 ml VOA

SLEEVE

HCl

HNO₃

ICE

NONE

WATER

SOIL

BTEX (8021B)

BTEX/TPH Gas/MTBE (8021B/M8015)

TPH as Diesel (M8015)

TPH as Motor Oil (M8015)

TPH Gas/BTEX/MTBE (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates (8260B)

7 Oxygenates (8260B)

Lead Scav. (1.2 DCA & 1.2 EDB - 8260B)

EPA 8260B (Full List)

Volatile Halocarbons (EPA 8260B)

Lead (7421/239.2) TOTAL (X) W.E.T. (X)

TAT

For Lab Use Only

01
02

Relinquished by:

J.J. Barnaby

Date

9/13/02 1555

Time

Received by:

Remarks:

Relinquished by:

J.J. Barnaby

Date

Time

Received by:

Relinquished by:

Date

09/12/02 1555

Time

Received by Laboratory:

Mahelle Woodworth / Kiff Analytical

Bill to: