1386 EAST BEAMER STREET WOODLAND, CA 95776-6003 FAX (916) 662-0273 (916) 668-5300

CALIF CONTRACTOR # 513857 A CORPORATION REGISTERED GEOLOGIS (S

March 19, 1997

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

RE: February, 1997 Quarterly Groundwater Sampling Report for Former Desert Petroleum Station #796, 2844 Mountain Boulevard, Oakland, California.

Dear Mr. Rutherford:

As you requested Western Geo-Engineers (WEGE) has performed the quarterly monitoring/sampling of this site. The following report represents WEGE's February, 1997 Quarterly Groundwater Sampling.

INTRODUCTION

A WEGE sample technician monitored and sampled the four existing groundwater monitoring wells on February 21, 1997. During this site visit, free product was found in RS-1.

GROUNDWATER SAMPLE RESULTS, February 21, 1997

Table 1 is a summary of groundwater monitoring of this site since May, 1990. The most recent sampling/monitoring, February 21, 1997 found 0.04 feet of free product in monitor well RS-1. RS-2 contains high levels of dissolved gasoline range hydrocarbons. RS-3 and RS-4 contain minor amounts of dissolved gasoline range hydrocarbons.. Samples from RS-2, RS-3 and RS-4 were tested for MTBE. All three wells contained MTBE, which was confirmed with the GC/MS 8260 method, see Appendix A for Laboratory report.

LOCATION

The site is an operating ARCO service station that retails regular unleaded, super unleaded gasoline and diesel and is also an operating garage performing automobile maintenance. The site is located East of Highway 13 at 2844 Mountain Blvd., Oakland, California, west of Joaquin Miller Park.

GROUNDWATER GRADIENT "FLOW DIRECTION"

Figure 4 depicts groundwater elevations as measured on February 21, 1997. This figure shows a gradient flow to the which concurs with the local topography, see Figure 2.

DP796, Feb., 1997 RPT

GROUNDWATER QUALITY

WEGE obtained groundwater samples from monitor wells RS-2, RS-2, RS-4 on February 21, 1997. RS-1 contained 0.04 feet of free phase product and was not sampled, see Table 1 and Figure 5 and Appendix A.

TIME FRAME

April/May, 1997 UST Tank Lining, over-excavation of

gasoline tainted soils near RS1 and SPS

test hole M7.

June, 1997 Monitoring and sampling groundwater from

wells RS-1, RS-2, RS-3 and RS-4.

HEALTH AND SAFETY

This site is being treated as a class D site, normal common sense is to be used.

SAMPLE METHODS

A WEGE technician working directly under California Registered Geologist #3037 using approved methods gauged, purged and sampled the monitor wells on December 11, 1996, see Appendix B.

SAMPLE PRESERVATION.

Each sample was placed into two, certified clean, glass, 40 ml VOAs with laboratory installed HCl preservative and 1 liter amber.

ANALYTICAL METHODS AND DHS LABORATORY SELECTED.

WEGE contracted North State Environmental (NSE), DHS #1753, P.O. Box 5624, South San Francisco, CA 94083 (415) 588-2863 to perform the analysis of the ground water samples.

NSE analyzed the samples for Total Petroleum Hydrocarbons as gasoline (TPHg) w/BTEX distinction utilizing EPA Methods 8020 (GCFID) with 3050 extraction method and TPH as diesel and oil range utilizing EPA Methods 8015 with 3510 extraction method as described on page 17, Table 2 of the TRI-REGIONAL BOARD STAFF RECOMMENDATIONS FOR PRELIMINARY EVALUATION AND INVESTIGATION OF UNDERGROUND TANK SITES, 10 AUGUST 1990.

NSE noted that Methyl Tert Butyl Ether (MTBE) was evident in the samples (RS-2, RS-3 and RS-4), see Table 1 and Appendix A. The detection limits in water are: TPH G 50 ug/L; Benzene, Toleuene and Ethylbenzene 0.5 ug/L, Xylenes 1 ug/L and MTBE 0.5 ug/L.

DP796, Feb., 1997 RPT

RINSEATES AND PURGED GROUNDWATER STORAGE/TREATMENT.

All rinseates and purged water produced from the groundwater sampling and weekly purging of the wells is transferred into 55 gallon DOT H17 drums for later removal by Evergreen Services to be recycled.

LIMITATIONS

The information presented in this report is based on the following:

- 1. The observations and data collected by field personnel.
- 2. The results of laboratory analyses performed by a state certified analytical laboratory.
- 3. Our understanding of the regulations of Alameda County, the City of Oakland and the State of California.
- 4. References reviewed for this report.

Changes in groundwater conditions can occur due to variations in rainfall, temperature, local and regional water use, and local construction practices. 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.

The services performed by Western Geo-Engineers, a corporation under California Registered Geologist #3037 and/or Contractors License #513857, 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, the City of Oakland and Alameda County. Our work and/or supervision of remediation and/or abatement operations, active or preliminary at this site is no way meant to imply that we are owners or operators of this site. Please note that the known 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

NAPPER

OF CALIF

Sincerely yours.

George L. Converse

Project Manager/Geologist-WEGE

ack E. Napper

Calif. Reg. Geologist

cc: Ms. Jennifer Eberle, Alameda County Health

DP796, Feb., 1997 RPT

TABLE 1
SUMMARY OF GROUNDWATER MONITORING
DP 796
2844 MOUNTAIN BOULEVARD, OAKLAND, CALIFORNIA 94602

										D007177			\
WELL	DATE	CASING	DEPTH	DEPTH TO		GROUND	: TPH : GASOLINE	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES	MTBE	SAMPLED
		ELEVATION	TO TOP	TOP WATER	PRODUCT	WATER ELEVATION		ug/L	ug/L	ug/L	ug/L	ug/L	/
			FHUID	MAILK	INICKNESS	EDEVALION	: 1119711	49/11	ug/ D	ug, n	49/1	3,2	٠
RS-1	MAY-90	689.25	7.2	7.2	0.00	682.05		370	420	40	320		RSI
	MAY-91	689.25	8.35	8.35	0.00	680.9		580	130	62	240		RSI
	OCT91	689.17	10.22	10.22	0.00	676.95		140	100	45	210		RSI
	JAN92	689.17	8.06	8.06	0.00	681.11	: 1.7	9.9	31	9.7	170		RSI
	JAN93	689.17	5.3	5.3	0.00	683.87	; 3.7	650	9.2	51	170		RSI
	AUG93	689.17	8.56	8.56	0.00	680.61	: 0.9	14	0.6	2.1	В		RSI
	NOV93	689.17	8.44	8.44	0.00	680.73	: 1.4	9.6	ND	0.9	5		RSI
	JAN94	689.17	6.88	6.88	0.00	682.29	: 4.2	95	3.1	58	130		RSI
	MAY-94	675.63	7.87	7.87	0.00	667.76	: 7.5	270	11	37	96		RSI
	AUG94	675.63	16.28	16,28	0.00	659.35	: 0.13	12	0.5	2.6	5		RSI
	NOV94	675.63	8.02	8.02	0.00	667.61	: 0.27	4.7	0.7	0.6	15		RSI
	FEB95	675.63	6.51	6.51	0.00	669.12		81	2.3	1	12		RSI
	JUN95	675.63	7.34	7.34	0.00	668.29		460	ND	NĎ	ND	63000	RSI
• •	NOV95	675.63	8.71	8.71	0.00	666.92		660	16	140	330	31000	RSI
	FEB96	675.63	6.95	6.95	0.00	668.68		110	ND	12	21	84000	rsi Wege
	09/18/96	675.63	8.44	8.52	0.08		: ONE INCH	4000	37000	8000	45000	220000*	WEGE
	12/11/96	675.63 675.63	6.42 5.92	6.62 6.96	0.20 0.84	669.17	: 79 : 1/2 INCH			0000	43000	220000-	WEGE
	UZ/ZI/91.	675.63	5.92	6.96	0.04	440.10	1 TA THEM	Establish Etoto	U		: +		
RS-2	MAY-90	689	7.06	7.06	0.00	681.94	: 23	7200	4800	300	3300		RSI
	MAY-91	689	7.14	7.14	0.00	681.86		14000	1800	750	2900		RSI
	OCT91	688.89	8.84	8.84	0.00	680.05	: 13	4300	910	300	2300		RSI
	JAN 92	688.89	7.34	7.34	0.00	681.55	: 8.3	1800	920	140	1700		RSI
	JAN93	688.89	4,1	4.1	0.00	684.79	: 41	7000	210	1200	4200		RSI
	AUG93	688.89	7.32	7.32	0.00	681.57	: 19	5300	62	810	1600		RSI
	NOV 93	688.89	7.34	7.34	0.00	681.55	: 9.3	2400	3.9	46	B00		RSI
	JAN,-94	688.89	5.52	5.52	0.00	683.37	: 30	4900	ND	880	2600		RSI
	MAY-94	675.25	6.4	6.4	0.00	668.85	: 120	3300	330	ND	2200		RSI
	AUG 94	675.25	22.11	22.11	0.00	653.14	. 0.51	7.3	3.8	3.5	32		RSI
	NOV94	675.25	9.82	9.82	0.00	665.43		6.6	3.9	1.1	47		RSI
	FEB95	675.25	4.81	4.61	0.00	670.44		228	80	2	463		RSI
	JUN95	675.25	5.8	5.8	0.00	669.45		1300	160	200	1600	71000	RSI
	NOV95	675.25	7.64	7.64	0.00	667.61		670	25	150 59	360 460	65000 71000	RSI R SI
	FEB96	675,25	4.69	4.69	0.00	670.56		1400	170 48	350	570	160000	WEGE
	09/18/96	675,25	7.34	7.34	0.00	667.91		2000 2000	840	200	3200	180000	WEGE
	12/11/96 02/21/97	675.25 675.25	5.08 5.43	5.08 5.43	0.00	670.17 669.83		2100	1309	690	5100	*56000	
•	451 511 51	. 0:2.22	2.44	3-40	0.00	003.03		2200			2277		· Survey of the same
R\$-3	MAY-90	670	6	6	0.00	664.00	. 0.33	2	1	1	150		RSI
	MAY-91	670	6.76	6.76	0.00	663.24		0.4	ND	0.8	8		RSI
	OCT91	670	8.98	8.98	0.00	661.02	. ND	ND	ND	ND	ND		RSI
	JAN92	670	6.81	6.81	0.00	663.19	. ND	2.2	7.2	0.6	4		RSI
	JAN93	670	4.05	4.05	0.00	665.95	: ND	ND	ND	ND	ND		RSI

TABLE 1 SUMMARY OF GROUNDWATER MONITORING DP 796 2844 MOUNTAIN BOULEVARD, OAKLAND, CALIFORNIA 94602

WELL	DATE	CASING	DEPTH	DEPTH TO	FREE	GROUND	: TPH			ETHYL-			SAMPLED
		ELEVATION	TO TOP	TOP	PRODUCT	WATER	: GASOLINE	BENZENE	TOLUENE	BENZENE	XYLENES /	MTBE	BY
			FLUID	WATER	THICKNESS	ELEVATION	: mg/L	ug/L	ug/L	ug/L	ug/L (ug/L	/
							:				`		
	AUG93	670	7.19	7.19	0.00	662.81	: ND	30	6	2.4	S		RSI
	NOV93	670	7.12	7.12	0.00	662.88	; ND	4 . 8	0.4	0.6	2		RSI
	JAN94	670	5.42	5.42	0.00	664.58	; 0.33	25	3.2	3.9	12		RSI
	MAY-94	676.2	5.78	5.78	0.00	670.42	: 0.67	34	4	28	70		RSI
	AUG 94	676.2	5.86	5.86	0.00	670.34	: ND	ND	ND	ND	ND		RSI
	NOV94	676.2	5.08	5.08	0.00	671.12	: 0.069	2.5	3.1	1	4		RSI
	FEB95	676.2	4.51	4.51	0.00	671.69	: ND	0.3	0.4	ИĎ	1		RSI
	JUN95	676.2	5.29	5.29	0.00	670.91	: ND	ND	ND	ND	ND	66	RSI
	NOV95	676.2	7.1	7.1	0.00	669.10	: ND	ND	ND	ND	ND	44	RSI
	FEB96	676.2	4.48	4.48	0.00	671.72	: 0.12	ND	ND	ND	ND	110	RSI
	09/18/96	676.2	6.92	6.92	0.00	669.28	: 1	13	8.6	10	17	33	WEGE
	12/11/96	676.2	4.9	4.9	0.00	671.30	: 0.085	20	2	<0.5	14	4700	WEGE
	02/21/97	676.2	4.94	4,94	0.00	671.26	ن 0.12 ن	5	. 2	2	6	*450	WEGE
							·						
RS-4	MAY-90	689.06	8.34	B.34	0.00	680.72	: 0.44	9	11	9	49		RSI
	MAY-91	689.06	9.5	9.5	0.00	679.56	: מֿמ	6	4	3	5		RSI
	OCT91	689.1	10.82	10.82	0.00	678.28	: 0.83	280	120	24	170		RSI
	JAN92	689.1	9.31	9.31	0.00	679.79	: 0.62	34	8.3	2.1	21		RSI
	JAN93	689.1	6.89	6.89	0.00	682.21	: 0.15	32	1,7	5.8	13		RSI
•	AUG93	689.1	9.68	9.68	0.00	679.42	: ND	0.9	0.7	NĎ	0		RSI
	NOV93	689.1	9.83	9.83	0.00	679.2 7	: ND	ND	ND	ND	ND		RSI
	JAN94	689.1	B.17	8.17	0.00	680.93	: ND	1.7	ND	0.81	2		RSI
	MAY-94	675.38	8.69	8.69	0.00	666.69	: ND	ND	ND	ND	1		RSI
	AUG94	675.38	9.04	9.04	0.00	666.34	: 0.42	6.5	4.1	1.9	40		RSI
	NOV94	675.38	8	8	0.00	667.38	: 0.13	4.1	0.7	1.7	8		RSI
	FEB95	675.38	7.93	7.93	0.00	667.45	: ND	6	1.2	3.5	13		RSI
	JUN95	675.38	8.61	8.61	0.00	666,77	: NĎ	ND	ND	ND	ND	69	RSI
	NOV95	675.38	10.43	10.43	0.00	664.95	: ND	ND	ND	ND	ND	47	RSI
	FEB96	675.38	7.44	7.44	0.00	667.94	. 0.96	ND	ND	0.6	ND	90	RSI
	09/18/96	675.38	9.58	9,58	0.00	665.80	: <0.05	<0.5	<0.5	<0.5	<2	200	WEGE
	12/11/96	675.38	7.5	7.5	0.00	667.88	: 0.075	<0.5	0.6	<0.5	<2	104	WEGE
	02/21/97	675.3B	8.26	8.26	0.00	667.12	: <0.05	1 1	1.	<0.5	1	*190	WEGE

MTBE Methyl t-Butyl Ether

TPH Total Petroleum Hydrocarbons mg/L Milligrams per liter (ppm) ug/L Micrograms per liter (ppb)

ND or < Below laboratory detection limits

^{*} confirmed by GC/MS 8260 method.

FORMER DESERT PETROLEUM *796 2844 MOUNTAIN BOULEVARD OAKLAND, CALIFORNIA

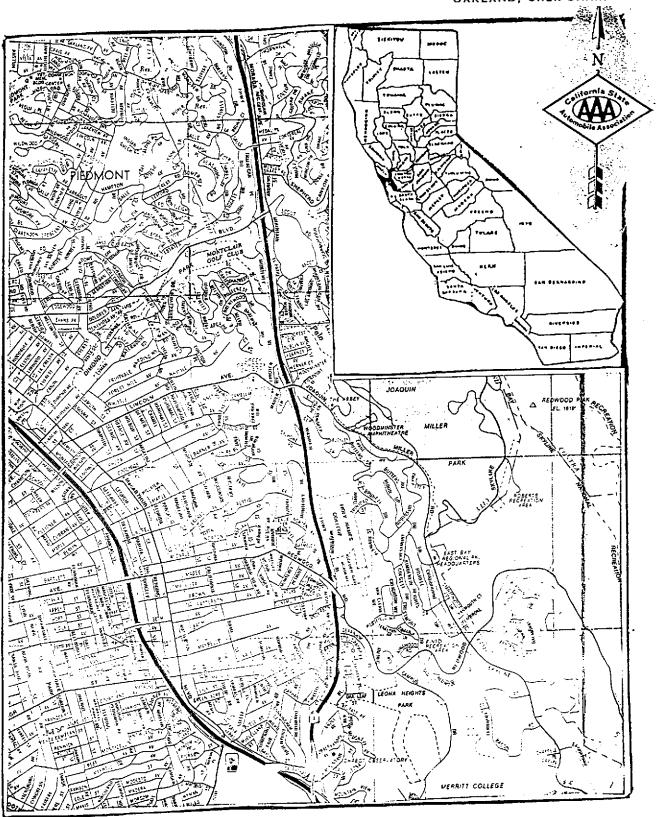


FIGURE 1

Location (AAA Map)

FORMER DESERT PETROLEUM *79 2844 MOUNTAIN BOULEVARD OAKLAND, CALIFORNIA

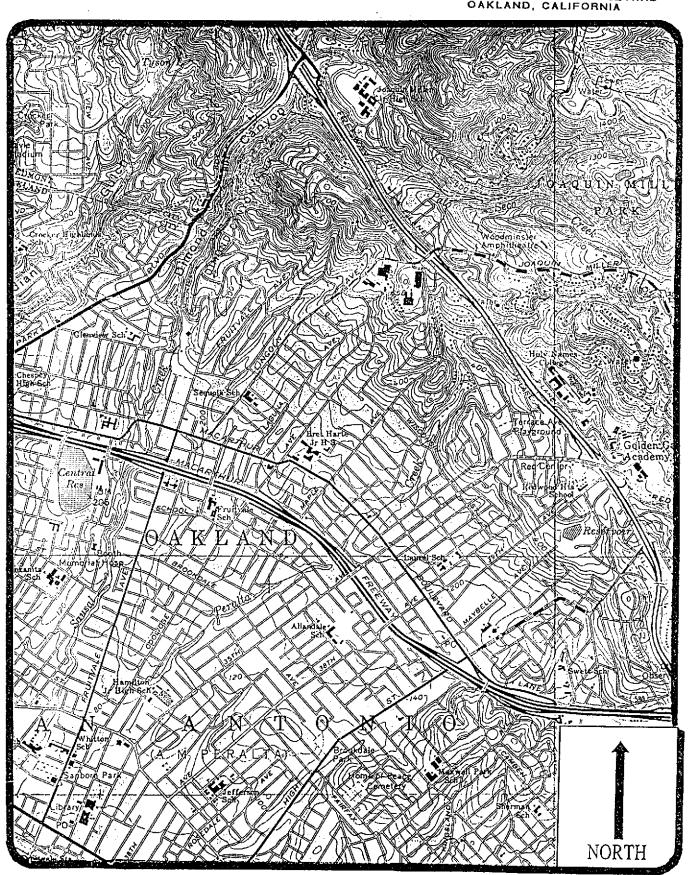
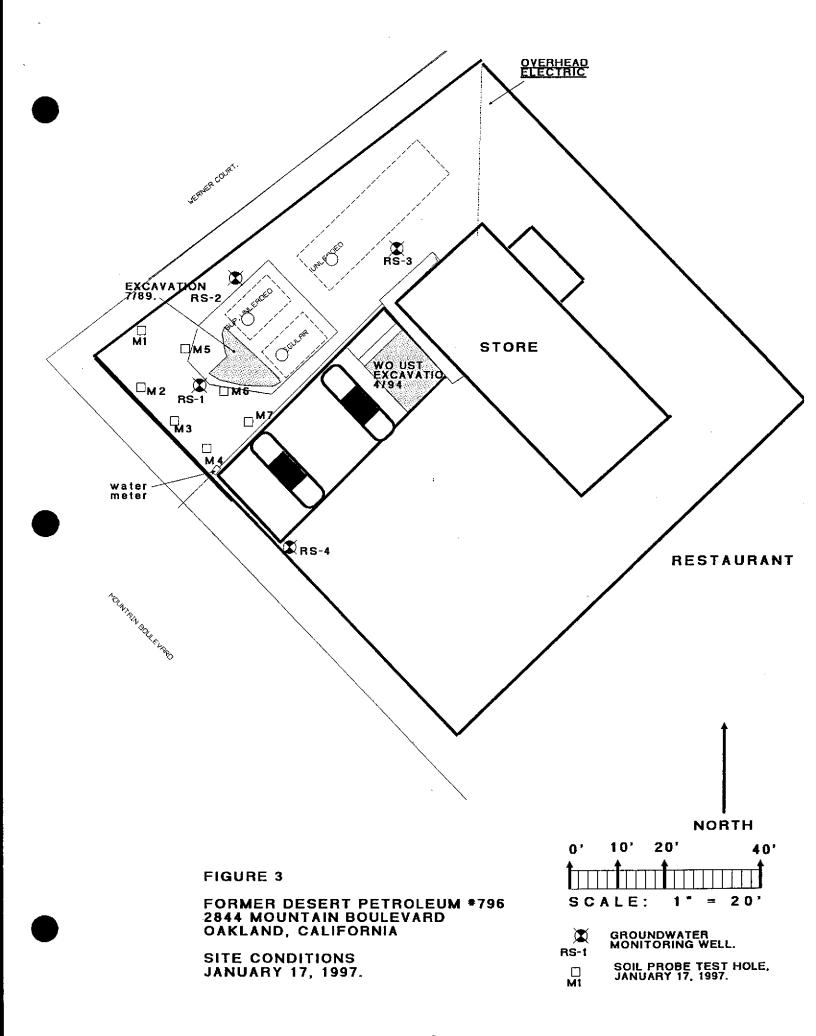
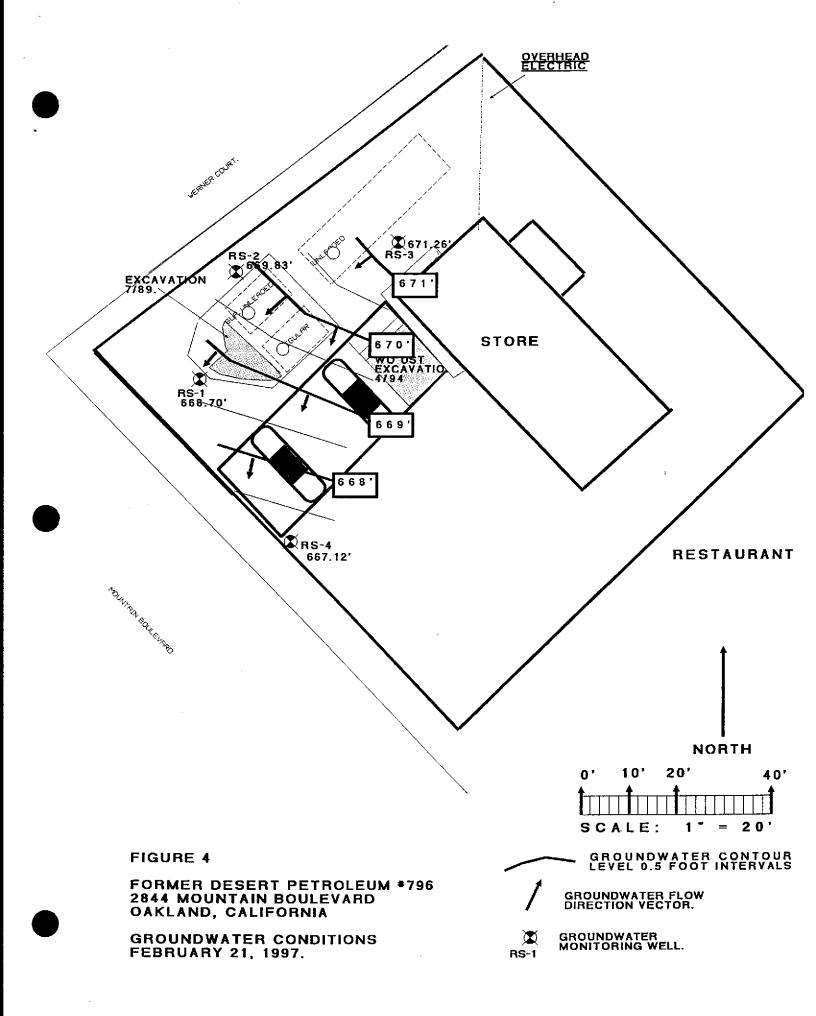
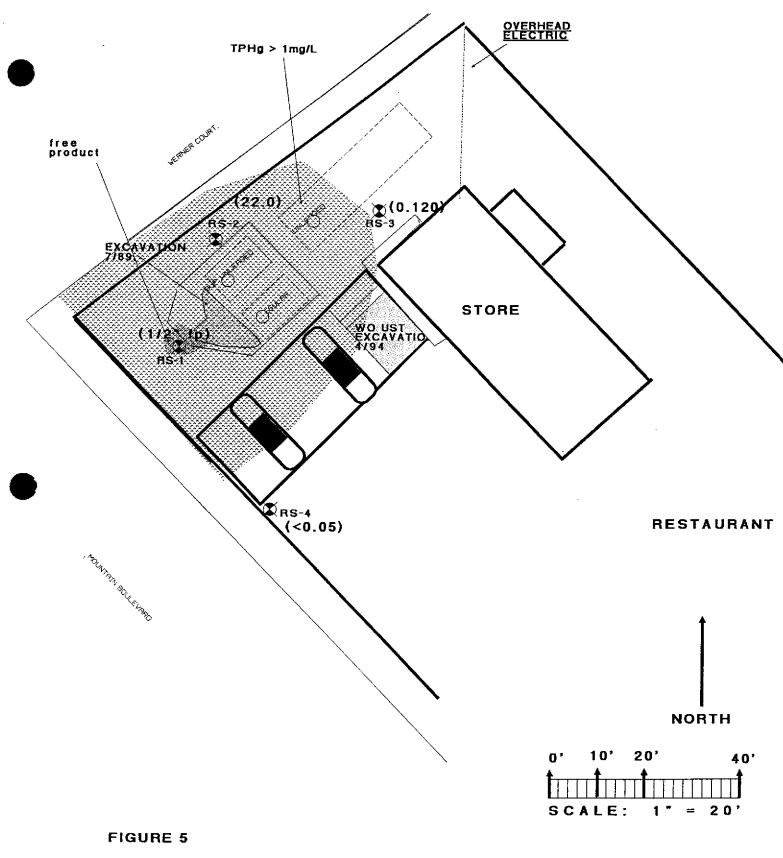


FIGURE 2, USGS TOPOGRAPHIC MAP







FORMER DESERT PETROLEUM *796 2844 MOUNTAIN BOULEVARD OAKLAND, CALIFORNIA

GROUNDWATER PETROLEUM HYDROCARBON PLUME (TPHg) FEBRUARY 21, 1997.

GROUNDWATER
MONITORING WELL.
RS-1 (16) well disignation with mg/L
TPHg in water.



CERTIFICATE OF ANALYSIS

Lab No:

97-157

Client:

Western Geo-Engineers

Project:

DP 796

Date Sampled:

02-21-97

Date Analyzed:

02-28-97

Date Reported:

03-03-97

Date Revised:

03-11-97

MTBE, Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8020 Gasoline Range Hydrocarbons by EPA Method 8015M

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
97-157-01	RS-2 WATER	MTBE Benzene Toluene Ethylbenzene Xylenes Gasoline	8020 8020 8020 8020 8020 8015M	*56000 ug/L 2100 ug/L 1300 ug/L 600 ug/L 5100 ug/L 22000 ug/L
97-157-02	RS-3 WATER	MTBE Benzene Toluene Ethylbenzene Xylenes Gasoline	8020 8020 8020 8020 8020 8015M	*850 ug/L 5 ug/L 2 ug/L 2 ug/L 6 ug/L 120 ug/L
97-157-03	RS-4 WATER	MTBE Benzene Toluene Ethylbenzene Xylenes Gasoline	8020 8020 8020 8020 8020 8015M	*190 ug/L 1 ug/L 1 ug/L ND 1 ug/L



CERTIFICATE OF ANALYSIS

Lab No:

97-157

Date Sampled:

02-21-97

Client:

Western Geo-Engineers

Date Analyzed:

02-28-97

Project:

DP 796

Date Reported:

03-03-97

MTBE, Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8020 Gasoline Range Hydrocarbons by EPA Method 8015M

Quality Control/Quality Assurance Summary-Water

Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
MTBE	8020	0.5 ug/L	ND	84	3
Benzene	8020	0.5 ug/L	ND ;	93	4
Toluene	8020	0.5 ug/L	ND /	104	8
Ethylbenzene	8020	0.5 ug/L	ND /	105	9
Xylenes	8020	1.0 ug/L	ND /	103	7
Gasoline	8015M	50 ug/L \	ND	84	9

^{*} Result confirmed by EPA Method 8260 (GC/MS)

ELAP Certificate NO: 1753

Reviewed and Approved:

John A. Murphy, Laboratory Director

Page 2 of 2



North State Environmental Analytical Laboratory Phone: (415) 588-9652 Fax: (415) 588-1950

Chain of Custody / Request for Analysis
Lab Job No.: 97-157 Page / of /

Client: DP 79 L			Report to: Western Geo Engineer's			S Phone (911) (68-5300			Turnaround Time			
Mailing Address: 13	86 E B	beamer ST.	Billing	to:	مر		Fax:(٩	16) 66	2 - 0	273		5 day
	land C.			Same 9	5			Billing R			Date:	5 day 2-21-97
							06796					er: Mats Penich
Project / Site Address:	2844	Mounta	in Bl	Analys Requested	1845/BTC	MARC	<u> </u>					
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	194	1/2						/ Comments/Hazards
Warm	H20	2 V095	HCL	2-21-97	NAV	N						
RS-2				1 12:00	V	V ,						
R5.3				12:39	V							
RS-4	}		}	1:15	V	/						
No. and the			.,,									
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Relinquished by:	MA	7	D	ate: 42/17- Time: 4	104	Receiv	red by: c	Edera	M.C	ma		Pres/cold / fuls
Relinquished by:			D	ate: Time:		Receiv	ed by:					1 / 555

APPENDIX B.

METHODS AND PROCEDURES, QA/QC

This Appendix documents the specific methods, procedures, and materials used to collect and analyze groundwater samples and monitoring the vapor recovery system.

Gauging and Measuring Monitor Wells

to sampling a well, WEGE personnel obtain measurements: 1) the depth to groundwater (DTW); 2) the product using a battery powered depth to water-product interface probe and or by using a specially designed bailer; and 3) the total depth of casing, to calculate the total water head in the well. The DTW-product interface probe is lowered into the well casing until the instrument signals when the top of free phase floating product (if present) and/or the top of water is reached. The distance from the top of free phase floating product and/or water to the top of casing is read from the tape that is attached to the probe. The probe is then lowered to the bottom of the well and the tape is read again. The tape is calibrated in 0.01 foot intervals for accuracy to 0.01 foot. The measured distance is subtracted from the established elevation at the top of casing to determine the elevation of groundwater with respect to mean sea level and the difference between the top of groundwater and the base of the well is noted to establish water head in the well. The probe and tape is washed with TSP (Tri Sodium Phosphate) 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. Some of the abbreviations used in water sampling and or measuring or monitoring are: DTW, Depth to Water (from surface reference ie usually TOC); TOC, Top of Casing; MSL, Mean Sea Level; AMSL and BMSL, Above and Below MSL; BS, Below Surface; TOW, Top of Water; TSP, Tri Sodium Phosphate.

Purging Standing Water from Monitor Wells

If no product is present, WEGE personnel purge the well by removing groundwater until the water quality parameters (temperature, pH, and conductivity) stabilize, or until the well is emptied of water. Periodic measurements of groundwater temperature, pH, and conductivity are taken with a Hydac Monitor or other meter and recorded along with the volume of groundwater 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 borehole volumes.

$BV = (7.48\pi/4) \times (CD^2 + P(BD^2 - CD)^2) \times (WD - GW)$

BV borehole volume (gallons)

BD borehole diameter (feet)

CD casing diameter (feet)

WD well depth (feet)

GW depth to groundwater (feet)

P porosity of the gravel pack, 25%

Table of Selected Boring and Casing Diameters

Boring diameter inches	Casing diameter inches	Volume gallons foot	3	Volumes X gallons	(WD-GW)
4	1	0.042			
6	1	0.082			
6	2	0.173			
8	2	0.277			
8	4	0.671			
10	2	0.572			
10	4	0.844			

For a 8 inch boring with 2 inch casing: $0.277 \times (WD-GW) \times 3$ for three volumes of water in gallons.

The water collected during purging is either safely stored onsite in 55 gallon DOT 17H drums for later disposition, transported to an approved on-site off-site treatment or sewer discharge system.

Collection of Water Sample for Analysis

The well is allowed to recover, to at least 80% if practical, after purging and a groundwater sample is collected.

Percent Recovery = (1 - <u>Residual drawdown</u>) x 100. Maximum drawdown

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 groundwater 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" indicate 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, respectivily.

Chain of Custody Documentation

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

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

Lawrence Tank Testing

D.L Lawrence

P.O. Box 407

Downieville, California 95936

(916) 289-3109

542 2502

CUSTONER MAHE AND ADDRESS: WESTERN	CRO	E	NG	NE	ERS	DAT	E 2-	21-	-97
	1					INV	DICE NO). q	7495
SITE ADDRESS: 2488 MOUNTA	N OHL	1	20	7	± 796				<u> </u>
				•					7
PNONE NO.								\mathcal{D}_{λ}	M
					· · · · · · · · · · · · · · · · · · ·	TECHNICIAN	s nahe	170	
DESCRIPTION OF YORK PERFORMED				CHARGE:	5			TATERIAL C	MARGES
RS-2 DTW 5.42 DTB 250 Z	(35GK	HR	LIXE Z HIN	KILES'	THUOKA	HATERIALS USED	QTY.	PRICE	TOTAL
R5-3 1 4.94 11 24.40	38 "								i ————
95-4 "8,26" 25,14	30 "								
RS-1 "6.96" 29.66	44								
						<u> </u>			
			<u> </u>						
								•	
	LATSOR	2	30		112,50				
TRAVEL TIME: COAKLAND TO SITE			30		22.50				
MILEAGE:			T .	10	4:00				
	TOTAL		. 10	TAL LABOR					
RATES:						TOTA	L HATERI	ALS	
ABOR AT SUSPER HOUR	ARRIVAL TIME KRS HIM		DEPART BRS	TIME			SALES	TAX	
RAVEL TIME AT SUSPER HOUR	1170		40	0		LAB	N CHARG	E3 / 4	39.00
ILEAGE AT . 40 PER HILE							TOTA		39,00
			, , , , , , , , , , , , , , , , , , , 		· ·				7,7,7
									
	· · · · · · · · · · · · · · · · · · ·					-,			



}

WELL SAMPLING DATA SHEET

SITE DP 79	6 DATE	2-21-97	' TIME	1:26						
WELL RS-	/ SAMPL	ED BY.	<i>0</i> 00	1.00						
-			777							
WELL ELE										
PRODUCT	THICKNESS									
DEPTH TO	DEPTH TO WATER DIW: 6.96 DIB: 29.66 FLUID ELEVATION									
			····							
BAILER TY PUMP	4:3003	able bail	eſ							
LOMIL	David LTI									
	WELL PU	RGING	RECORD							
TIME	VOLUME	TEMP.		COND.						
	REMOVED		F	JOINE.						
	1 st bailer			X1000						
•				7,1000						
			•							
	-									
and the second s	10	051	,							
· · · · · · · · · · · · · · · · · · ·	TV 9 11			2/01						
1/			M							
1/1/1			SAVIII							
1'1 prod		HV-1	0 1							
	· ·									
FINAL YOLL	IME PURGED) 44	201							
TIME SAMPI			391							
SAMPLE ID.	RS-/	W/C								
SAMPLE CO		2 Voas								
ANALYSIS T	A 22 22 22 22 22 22 22 22 22 22 22 22 22	PHQ/BTEX	MIBE							
LABORATOR										
NOTES: /	st bailer	and a special section of the second								
	X2	ineh ^G	as Produc	=1						
	Vo sa	mple		1						
	No te	5+								



1386 BAST BBAMBR WOODLAND, CALIFORNIA (916) 668-5300, FAX (916) (

WELL SAMPLING DATA SHEET

SITE DP 79	/ DATE	0 0 1 0 5	7 000 00	· · · · · · · · · · · · · · · · · · ·						
WELL RS:	6 DATE	2-21-97	/ TIME	11:25						
11 PPT 12-	Z SAIVIPI	LED BY.	mp							
WELL ELE	VATION		·							
	THICKNESS									
			-							
FLUID ELEVATION DEPTH TO WATER DIW: 5, 42 DIB: 25.02										
BAILER TY	·									
PUMP		sable bail	er							
LOM	David LT	<u> </u>								
	WELL PO	JRGING I	RECORD							
TIME	VOLUME	TEMP.		COND.						
	REMOVED			COLLD.						
11:29	1st bailer	68.4	7.89	.90 X1000						
/1:45 /:50	28 gal	66.5	8.40	192						
	J	66.4	8:06	,9/						
11:55	2 .	66.4	8.43	,93						
11:57		68.4	8.21	. 9 4						
11:59	. 6	67.9	8,28	. 94						
		66.0	8.26	, 94						
			MARIA							
			vopi vi							
INAL VOLU	ME PURGEL) 37 /4	991							

FINAL VOLUME PURGED 37 /4 agl
TIME SAMPLED (2:00
SAMPLE ID. RS-2
SAMPLE CONTAINERS 2 VOQS
ANALYSIS TO BE RUN TOHA /BTEX MTBE
LABORATORY NZS
NOTES: 1st bailer clear Bio Gas a dor

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WELL SAMPLING DATA SHEET

SITE DP 79	6 DATE	2-21-97	TIME	12:08)
WELL RS-		ED BY.	<i>m</i> 0	12.00	
· · · · · · · · · · · · · · · · · · ·			777		 -
WELL ELE					
	THICKNESS		· <u>· · · · · · · · · · · · · · · · · · </u>		
DEPTH TO	VATION	W: 4.94 1	DTB: 24.4	0	
BAILER TY		11 .	····	 -	
PUMP	4,21,02	able bail	<u>er</u>		
	David LT				
	WELL PU	JRGING F	RECORD		
TIME	VOLUME	TEMP.	pН	COM	
	REMOVED				
12:10	Iso bailer	65.1	8.77	1.68	<u>X10</u> 00
12:19	30	60.6	8.82	65	
12:21	i a	61.8	8:86	.65	
12:25	18	61.6	8.82	.64	
12:26		61.9	8.84 8.82	.65	
7 6 - 60		61.8	. 0/-	.65	+-
		59	1/1/col		+
		· · · · · · · · · · · · · · · · · · ·			
				<u> </u>	+
		·	<u></u>		
INAL VOLU	JME PURGEL	39/2 (491	·	
TIME SAMPI	LED 12:30		J		
AMPLE ID.	RS-3				
AMPLE COI		2 Voas			
NALYSIS T		PHy/BTEX	MTBE	• <u> </u>	
ABORATOR		7			
OTES:	st bailer C	10cr 1/0	odor	·	
		-			



WELL SAMPLING DATA SHEET

SITE DP 79	6 DATE	2-21-97	TIME	12:50	~						
WELL RS-	4 SAMPI	ED BY.	1 117113	12:50							
11 222 175	7 07 11 11	, , , , , , , , , , , , , , , , , , ,	<i>m</i> p								
WELL ELE	VATION										
			····								
•	PRODUCT THICKNESS										
DEPTH TO		W: 8.26 1	DIB: 25	14							
FLUID ELE	VATION										
BAILER TY	PE dispos	iable bail	در	· · · · · · · · · · · · · · · · · · ·							
PUMP	David LT	ſ			······································						
	WELL PU	JRGING F	RECORD	•							
TIME	VOLUME	TEMP.	pH	CON	D.						
	REMOVED		1		- •						
12:52	l 152 bailer	68.6	8.36	1,9/	XIOOC						
1:05	30	73.7	8.36	.92							
1:06		72.4	8:50	1,94							
1:09	•	71.4	8.SQ	.9/							
1:11		68.3	8.50	.9/							
1:13	•	69.2	8.50	.9/							
1:14		69.4	8.50	,91							
			Sampled		#						
			ZVV C								
	-										
······································			<u></u>		· · · · · · · · · · · · · · · · · · ·						

FINAL VOLUME PURGED 31 31 99
TIME SAMPLED 1:15
SAMPLE ID. RS-4
SAMPLE CONTAINERS 2 VOQS
ANALYSIS TO BE RUN THE /BTEX MTBE
LABORATORY NES
NOTES: 1st bailer clear light light gas order

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North State Environmental Analytical Laboratory

Phone: (415) 588-9652 Fax: (415) 588-1950

Chain of Custody / Request for Analysis Lab Job No.: _____ Page _/_ of _/_

Client: 1, 1° 79 6			Report to: Western Gee Engineer's			ြဲ Pho	Phone(911)((8-5300)			Turnaround Time	
Mailing Address: 1386 [Beamer ST.				Billing to:			Fax/91(1) ((12 x 0273			5 day	
Woodland CA				Samo 95			PO# / Billing Reference:			Date: 2.21-97 Sampler: Man Renich	
Project / Site Address:	2341	MOGO 19	N 1.1	Analys	is /	7	/ /	7 7			
				Requested	14 /	31/					
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TOH JETE	Jaku,			/	/Comments/Hazards	
Winn	H2 0	- V095	HCL	2-21-97	MAKINA	(M)					
115.2		}	1	1 × 0	VV						
115.3				0,70							
R5-4	1		<u> </u>	1115	VV						
							, gl				
				:		<u></u>					
-											
	:	, a :=									
		7								<u> </u>	
-								,			
				;			,				
						<u> </u>					
Relinquished by: Man Penich				ate: 2-27-97Time: 🚄	<u>\$</u>	eived b	- 	114		Lab Comments	
Relinquished by:				ate: Time:	Red	eived b	y:				
Relinquished by:				ate: Time:	Red	eived b	y:			Š.	