

ALCO  
HAZMAT  
94 JAN 21 PM 3:26

January 13, 1994

12-003

Mr. Dan Kirk  
Shell Oil Company  
P. O. Box 5278  
Concord, California 94520

Re: Shell Service Station, 1800 Powell Street, Emeryville, California  
WIC# 204-2495-0101

Dear Mr. Kirk,

Hydro-Environmental Technologies, Inc. (HETI) is pleased to present this report on the fourth quarter 1993 ground water sampling at the referenced location (Figure 1). Information presented in this report is based on the results of laboratory analysis of ground water samples collected by the Shell Oil Company (Shell) sampling contractor on November 12, 1993. A copy of this report has been forwarded to the Alameda County Department of Environmental Health and to the Regional Board.

#### Site Description

Project history and background information has been presented in investigative reports prepared during the site characterization phase of this project. There are currently seven ground water monitoring wells present on-site (Figure 2).

#### Results of the Fourth Quarter, 1993 Ground Water Sampling

##### Ground Water Gradient:

The depth to ground water in all monitoring wells was measured by the Shell sampling contractor, Blaine Tech Services, Inc. (Blaine), on November 12, 1993. These measurements were combined with previously established well head elevations to yield a ground water gradient map (Figure 3). Water table elevations are recorded in Table 1.

As shown on Figure 3, the ground water gradient is predominantly towards the northeast at a gradient of approximately 1.4%. This flow direction is generally

consistent with that measured during previous phases of the site investigation. As shown on Table 1, ground water elevation has generally increased by up to 0.6 feet since the sampling visit in August, 1993. The ground water elevation in S-5 decreased by 0.12 feet and that in S-10 increased by 2.5 feet. Previous ground water elevation measurements from S-10 have been anomalous and consequently this well was not used to define contours on Figure 3.

**Ground Water Analytical Data:**

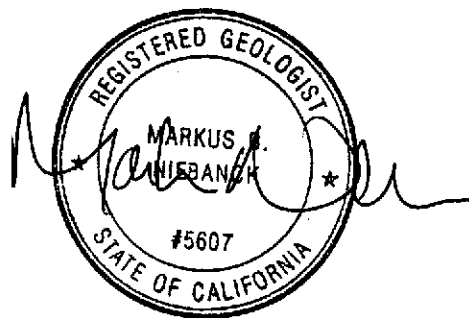
Analytical results indicate that concentrations of petroleum hydrocarbons exceeding method detection limits were found in samples collected from monitoring wells S-8, S-10, S-12, S-13 and S-14 on November 12, 1993. Concentrations of benzene have decreased in wells S-8, S-10, and S-13 since August, 1993. Monitoring well S-5 was not sampled this quarter due to the presence of a parked car over the well. Blaine sampling and analytical data is presented as an attachment to this report. Current and historical analytical results are presented in Table 1.

All information and interpretation in this report is presented in accordance with currently accepted professional practices. This report has been prepared for the sole use of Shell Oil Company. Any reliance on the information presented herein by third parties will be at such parties' sole risk. HETI is pleased to be of continued service to Shell. If you have any questions or comments regarding this report, please do not hesitate to call.

Very truly yours,

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Markus B. Niebanck, R. G.  
Western Regional Manager



cc. Ms. Susan Hugo, Alameda County Department of Environmental Health  
Mr. Rich Hiatt, SF Bay RWQCB

RECEIVED DEC 16 1993

December 8, 1993

Shell Oil Company  
P.O. Box 5278  
Concord, CA 94520-9998

Attn: Daniel T. Kirk

SITE:  
Shell WIC #204-2495-0101  
1800 Powell Street  
Emeryville, California

QUARTER:  
4th quarter of 1993

## QUARTERLY GROUNDWATER SAMPLING REPORT 931112-J-1

---

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in response to the request of the consultant who is overseeing work at this site on behalf of our mutual client, Shell Oil Company. Data collected in the course of our field work is presented in a **TABLE OF WELL GAUGING DATA**. The field information was collected during our preliminary gauging and inspection of the wells, the subsequent evacuation of each well prior to sampling, and at the time of sampling.

Measurements taken include the total depth of the well and the depth to water. The surface of water was further inspected for the presence of immiscibles which may be present as a thin film (a sheen on the surface of the water) or as a measurable free product zone (FPZ). At intervals during the evacuation phase, the purge water was monitored with instruments that measure electrical conductivity (EC), potential hydrogen (pH), temperature (degrees Fahrenheit), and turbidity (NTU). In the interest of simplicity, fundamental information is tabulated here, while the bulk of the information is turned over directly to the consultant who is making professional interpretations and evaluations of the conditions at the site.

## **STANDARD PROCEDURES**

---

### **Evacuation**

Groundwater wells are thoroughly purged before sampling to insure that the sample is collected from water that has been newly drawn into the well from the surrounding geologic formation. The selection of equipment to evacuate each well is based on the physical characteristics of the well and what is known about the performance of the formation in which the well has been installed. There are several suitable devices which can be used for evacuation. The most commonly employed devices are air or gas actuated pumps, electric submersible pumps, and hand or mechanically actuated bailers. Our personnel frequently employ USGS/Middleburg positive displacement pumps or similar air actuated pumps which do not agitate the water standing in the well.

Normal evacuation removes three case volumes of water from the well. More than three case volumes of water are removed in cases where more evacuation is needed to achieve stabilization of water parameters and when requested by the local implementing agency. Less water may be obtained in cases where the well dewateres and does not recharge to 80% of its original volume within two hours and any additional time our personnel have reason to remain at the site. In such cases, our personnel return to the site within twenty four hours and collect sample material from the water which has recharged into the well case.

### **Decontamination**

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site. Effluent water from purging and on-site equipment cleaning is collected and transported to Shell's Martinez Manufacturing Complex in Martinez, California

### **Free Product Skimmer**

The column headed, VOLUME OF IMMISCIBLES REMOVED (ml) is included in the TABLE OF WELL GAUGING DATA to cover situations where a free product skimming device must be removed from the well prior to gauging. Skimmers are installed in wells with a free product zone on the surface of the water. The skimmer is a free product recovery device which often prevents normal well gauging and free product zone measurements. The 2.0" and 3.0" PetroTraps fall into the category of devices that obstruct normal gauging. In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the PetroTrap before putting it back in the well. This

recovered free product is measured and logged in the VOLUME OF IMMISCIBLES REMOVED column. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on Shell's behalf.

### **Sample Containers**

Sample material is collected in specially prepared containers which are provided by the laboratory that performs the analyses.

### **Sampling**

Sample material is collected in stainless steel bailer type devices normally fitted with both a top and a bottom check valve. Water is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

Following collection, samples are promptly placed in an ice chest containing prefrozen blocks of an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

### **Sample Designations**

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

### **Chain of Custody**

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Shell Oil Company chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

### **Hazardous Materials Testing Laboratory**

The samples obtained at this site were delivered to Anametrix, Inc. in San Jose, California. Anametrix, Inc. is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1234.

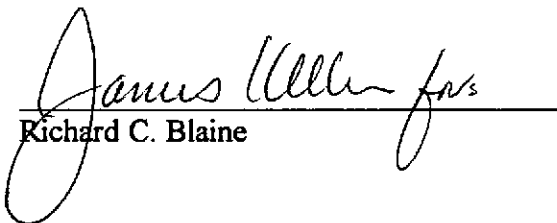
## Objective Information Collection

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. performs no consulting and does not become involved in the marketing or installation of remedial systems of any kind. Blaine Tech Services, Inc. is concerned only with the generation of objective information, not with the use of that information to support evaluations and recommendations concerning the environmental condition of the site. Even the straightforward interpretation of objective analytical data is better performed by interested regulatory agencies, and those engineers and geologists who are engaged in the work of providing professional opinions about the site and proposals to perform additional investigation or design remedial systems.

## Reportage

Submission of this report and the attached laboratory report to interested regulatory agencies is handled by the consultant in charge of the project. Any professional evaluations or recommendations will be made by the consultant under separate cover.

Please call if we can be of any further assistance.

  
Richard C. Blaine

RCB/mla

attachments: table of well gauging data  
chain of custody  
certified analytical report

cc: Hydro Environmental Technologies, Inc.  
2363 Mariner Square Drive, Suite 243  
Alameda, CA 94501  
ATTN: Markus B. Niebanck

Table 1

## SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station  
1800 Powell Street  
Emeryville, California  
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)	
S-5	10/27/88	11.72	---	---	3000	660	20	20	70	NA	NA	
	2/10/89	11.72	---	---	2900	550	20	20	30	NA	NA	
	4/28/89	11.72	---	---	4300	750	10	20	<30	NA	NA	
	7/7/89	11.72	---	---	1500	300	8.0	7	9	NA	NA	
	10/25/89	11.72	---	---	2100	760	10	40	50	NA	NA	
	1/4/90	11.72	---	---	1300	520	9.0	8	10	NA	NA	
	7/6/90	11.72	8.36	3.36	1400	500	10	4	<10	NA	NA	
	10/19/90	11.72	---	---	4200	1100	9.0	14	7	NA	NA	
	1/14/91	11.72	---	---	4500	1100	15	30	25	6100	NA	
	4/23/91	11.72	---	---	2800	500	8.0	14	10	NA	NA	
	7/8/91	11.72	9.15	2.57	3200	1000	16	9	12	NA	NA	
	10/11/91	11.72	9.67	2.05	1700	16	5.7	5.2	8.9	NA	NA	
	2/12/92	11.72	9.00	2.72	1300	300	5.0	<5.0	<5	NA	NA	
	5/11/92	11.72	8.61	3.11	1900	490	<5.0	<5.0	<5	NA	NA	
	9/1/92	11.72	9.61	2.11	6700	760	26	<25	<25	NA	NA	
	12/4/92	11.72	9.47	2.25	2900	890	5.3	7.3	13	NA	NA	
	2/17/93	11.72	8.29	3.43	1300	280	3.0	3.4	9.4	NA	NA	
	5/29/93	11.72	9.16	2.56	460	130	<0.5	<0.5	2.9	NA	NA	
8/11/93	11.72	9.30	2.42	1700	530	5.5	<5.0	5.8	NA	NA		
11/12/93	11.72	9.42	2.30	NS	NS	NS	NS	NS	NA	NA		
S-6	10/27/88	---	---	---	6000	1700	50	80	420	NA	NA	
	2/10/89	---	---	---	2800	740	20	20	140	NA	NA	
	4/28/89	---	---	---	6500	2400	30	50	210	NA	NA	
	7/7/89	---	---	---	3700	1700	34	55	200	NA	NA	
	10/25/89	---	---	---	<50	23	<5.0	<5.0	10	NA	NA	
	11/10/89	---	---	---	Well abandoned							NA
S-7	10/27/88	---	---	---	50	1.1	<1.0	<1.0	4	NA	NA	
	2/10/89	---	---	---	50	0.9	<1.0	<1.0	<3	NA	NA	
	4/28/89	---	---	---	<50	1.0	<1.0	<1.0	<3	NA	NA	
	7/7/89	---	---	---	70	2.2	<1.0	<1.0	<3	NA	NA	
	10/25/89	---	---	---	6200	2200	130	190	660	NA	NA	

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station  
 1800 Powell Street  
 Emeryville, California  
 WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)	
S-7	11/10/89	--	--	--	Well abandoned							
S-8	10/27/88	12.76	--	--	1000	610	9	1.0	42	NA	NA	
	2/10/89	12.76	--	--	500	160	5	<2.0	17	NA	NA	
	4/28/89	12.76	--	--	2700	1500	20	10	40	NA	NA	
	7/7/89	12.76	--	--	440	180	5	2.0	12	NA	NA	
	10/25/89	12.76	--	--	2000	1100	17	5.0	70	NA	NA	
	1/4/90	12.76	--	--	1900	1300	20	<10	70	NA	NA	
	7/6/90	12.76	9.50	3.26	1600	920	30	<10	60	NA	NA	
	10/19/90	12.76	--	--	1400	640	<10	<10	30	NA	NA	
	1/14/91	12.76	--	--	670	190	5.8	<0.5	19	760	600	
	4/23/91	12.76	--	--	2400	740	54	5.7	59	NA	NA	
	7/8/91	12.76	10.45	2.31	1100	450	15	<2.5	42	NA	NA	
	10/11/91	12.76	10.83	1.93	340	4	0.6	<0.5	17	NA	NA	
	2/12/92	12.76	10.44	2.32	<1000	260	<10	<10	11	NA	NA	
	5/11/92	12.76	10.17	2.59	1800	700	14	<5.0	46	NA	NA	
	9/1/92	12.76	10.81	1.95	Floating product						NA	NA
	12/4/92	12.76	10.81	1.95	960	250	4.3	<2.5	14	NA	NA	
	2/17/93	12.76	9.65	3.11	2700	800	35	10	83	NA	NA	
5/29/93	12.76	10.46	2.30	960	710	25	84	80	NA	NA		
8/11/93	12.76	10.59	2.17	1300	630	17	<5.0	46	NA	NA		
11/12/93	12.76	10.29	2.47	910	180	8	<2.5	15	NA	NA		
S-9	10/27/88	12.75	--	--	Floating product: thickness not measured							
	2/10/89	12.75	--	--	Floating product: 1.30 feet measured thickness							
	4/28/89	12.75	--	--	Floating product: 1.25 feet measured thickness							
	7/7/89	12.75	--	--	Floating product: 1.20 feet measured thickness							
	10/25/89	12.75	--	--	Floating product: unable to measure accurately							
	1/4/90	12.75	--	--	Floating product: unable to measure accurately							
	4/12/90	12.75	--	--	Floating product: unable to measure accurately							
	7/6/90	12.75	9.67	3.08	Floating product: unable to measure accurately							
	10/19/90	12.75	--	--	Floating product: unable to measure accurately							
	1/14/91	12.75	--	--	Floating product: unable to measure accurately							



Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station  
 1800 Powell Street  
 Emeryville, California  
 WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-9	4/23/91	12.75	--	--	Floating product: unable to measure accurately						
	7/8/91	12.75	--	--	Floating product: unable to measure accurately						
	10/11/91	12.75	22.30	-9.55	Floating product: unable to measure accurately. Very slow recharge.						
S-10	10/27/88	12.58	--	---	700000	37000	100000	20000	110000	NA	NA
	2/10/89	12.58	--	---	6500	480	700	100	1800	NA	NA
	4/28/89	12.58	--	---	13000	1300	500	600	3700	NA	NA
	7/7/89	12.58	--	---	14000	1300	310	270	2400	NA	NA
	10/25/89	12.58	--	---	4200	580	34	4.0	440	NA	NA
	1/4/90	12.58	--	---	1700	360	10	7.8	170	NA	NA
	4/12/90	12.58	--	---	Floating product: 0.01 feet measured thickness						
	7/6/90	12.58	9.16	3.42	Floating product: 0.01 feet measured thickness						
	10/19/90	12.58	--	---	Floating product: 0.03 feet measured thickness						
	1/14/91	12.58	--	---	Floating product: 0.03feet measured thickness						
	4/23/91	12.58	--	---	Floating product: 0.01 feet measured thickness						
	7/8/91	12.58	9.41	3.17	Floating product: 0.03 feet measured thickness						
	10/11/91	12.58	7.77	4.81	Not sampled: insufficient recharge						
	2/12/92	12.58	6.41	6.17	1200	470	16	<5.0	14	NA	NA
	5/11/92	12.58	9.04	3.54	1100	100	6	4.0	19	NA	NA
	9/1/92	12.58	9.38	3.20	Floating product: 0.01 feet measured thickness						
12/4/92	12.58	6.89	5.69	Floating product							
2/17/93	12.58	7.34	5.24	530	89	8.5	1.6	4.5	NA	NA	
5/29/93	12.58	6.60	5.98	240	65	3.8	2.2	8.6	NA	NA	
8/11/93	12.58	9.09	3.49	250	23	4.1	<1.0	6.4	NA	NA	
11/12/93	12.58	6.58	6.00^^	320	1.6	1.3	1.4	6.2	NA	NA	
S-12	11/17/89	12.84	--	--	<250	18	<2.0	<2.0	<5	1400	NA
	1/4/90	12.84	--	--	<250	24	2.0	<2.0	<5	NA	NA
	7/6/90	12.84	8.27	4.57	80	15	0.7	<0.5	2	NA	NA
	10/19/90	12.84	--	--	150	12	9.0	<0.5	3.6	NA	NA
	1/14/91	12.84	--	--	120	3.6	0.8	<0.5	2.9	1000	600
4/23/91	12.84	--	--	100	3.7	3.8	0.8	11	820^	800	

Table 1

## SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

Shell Service Station  
1800 Powell Street  
Emeryville, California  
WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-12	7/8/91	12.84	9.50	3.34	70	2.5	0.8	<0.5	2.4	NA	NA
	10/11/91	12.84	9.90	2.94	220	2.1	0.7	<0.5	1.2	2500	5100
	2/12/92	12.84	9.43	3.41	110	0.8	<0.5	<0.5	1.3	2500	1400
	5/11/92	12.84	8.65	4.19	140	0.8	0.8	<0.5	2.5	3800^	NA
	9/1/92	12.84	9.86	2.98	190	3.0	15	0.5	4.5	2600^	NA
	12/4/92	12.84	9.93	2.91	180	1.2	1.0	1.0	7.7	3900^	NA
	2/17/93	12.84	8.08	4.76	350*	0.6	<0.5	0.5	5.5	2100^	NA
	5/29/93	12.84	9.08	3.76	290	2.0	1.6	4.4	6.0	2200	NA
	8/11/93	12.84	9.35	3.49	240	0.7	<0.5	<0.5	1.1	720	NA
	11/12/93	12.84	9.28	3.56	210*	0.7	0.5	<0.5	3.4	4100	NA
S-13	11/17/89	12.59	--	--	1900	700	160	70	340	2000	5000
	1/4/90	12.59	--	--	2800	1400	130	10	500	NA	NA
	7/6/90	12.59	9.47	3.12	3100	1800	60	40	270	NA	NA
	10/24/90	12.59	--	--	3400	1500	28	28	250	NA	NA
	1/14/91	12.59	--	--	1900	830	15	<10	99	900	1600
	4/23/91	12.59	--	--	2900*	1100	20	30	140	770**	640
	7/8/91	12.59	10.38	2.21	1500	880	10	6.0	160	NA	NA
	10/11/91	12.59	10.78	1.81	480	830	15	<0.5	120	2400	4900
	2/12/92	12.59	10.48	2.11	1300	510	<10	<10	86	1300	1300
	5/11/92	12.59	9.48	3.11	1000	470	<5.0	<5.0	50	1300^	NA
	9/1/92	12.59	10.74	1.85	Free product						
	12/4/92	12.59	10.30	2.29	900	290	4.6	<2.5	20	2400^	NA
	2/17/93	12.59	7.60	4.99	840*	310	3.5	<2.5	27	1200^	NA
	5/29/93	12.59	10.60	1.99^^	2100	1100	19	50	350	4600	NA
8/11/93	12.59	10.58	2.01^^	900	230	16	6.9	65	2300	NA	
11/12/93	12.59	9.84	2.75	2800	200	15	8.6	58	2800	NA	
S-14	11/17/89	12.69	--	--	<250	3.0	<2.0	<2.0	<5	<400	3000
	1/4/90	12.69	--	--	<250	3.0	2.0	<2.0	<5	NA	NA

Table 1

SUMMARY OF GROUND WATER ELEVATIONS AND WATER SAMPLE ANALYTICAL RESULTS

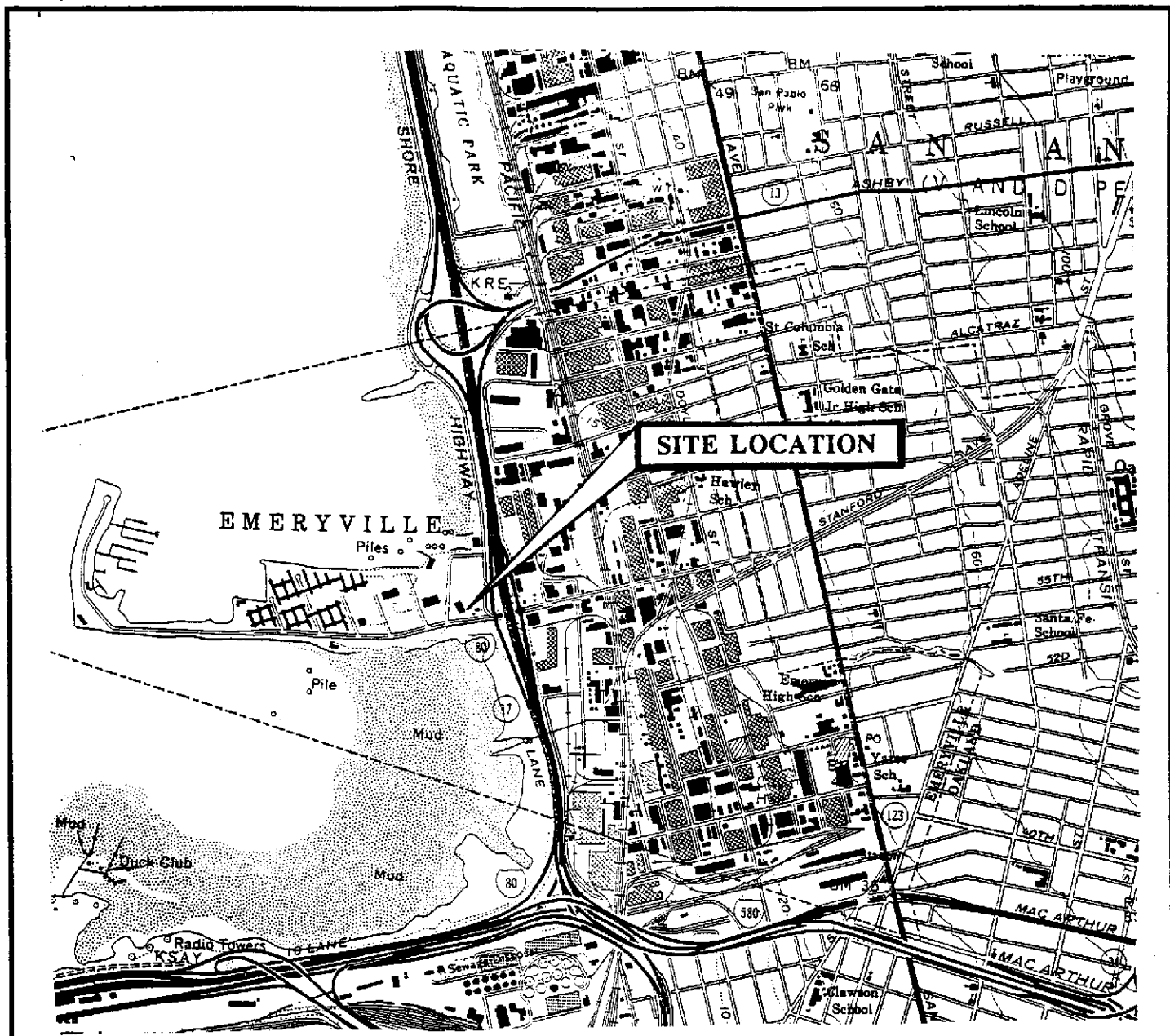
Shell Service Station  
 1800 Powell Street  
 Emeryville, California  
 WIC#204-2495-0101

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TPHd (ppb)	TPHmo (ppb)
S-14	4/23/91	12.69	---	---	1200	7.4	2.7	15	110	18000**	<5000
	7/8/91	12.69	10.32	2.37	190	6.5	0.6	1.9	26	NA	NA
	10/11/91	12.69	10.77	1.92	4900	7.0	1.2	<0.5	25	21000	<500
	2/12/92	12.69	10.40	2.29	370	4.6	<2.5	<2.5	26	12000*	2500
	5/11/92	12.69	9.66	3.03	660	2.9	<2.5	<2.5	24	2200^	NA
	9/1/92	12.69	10.74	1.95	700	3.2	<2.5	<2.5	15	7900	NA
	12/4/92	12.69	10.69	2.00	210	<0.5	<0.5	0.8	6.8	11000^	NA
	2/17/93	12.69	9.69	3.00	130*	<0.5	<0.5	<0.5	4.4	5700^	NA
	5/29/93	12.69	10.42	2.27	770	<0.5	<0.5	<0.5	4.5	5200	NA
	8/11/93	12.69	10.54	2.15	920	<1.0	<1.0	1.6	17	8800	NA
	11/12/93	12.69	9.91	2.78	710	20	57	25	69	28000	NA

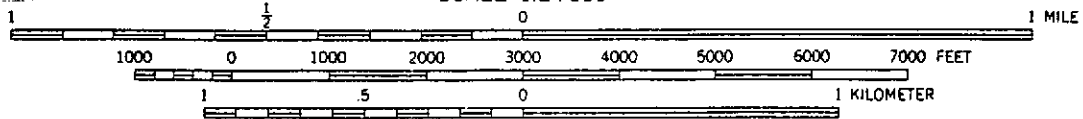
Notes :

- TOB : Top of well box referenced to mean sea level
- DTW : Depth to water
- GWE : Ground water elevation. Ground water elevation data available for certain dates only.
- TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified)
- BTEX : Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020
- TPHd: Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified)
- TPHmo Total petroleum hydrocarbons as motor oil by EPA Method 8015 (modified)
- NA : Not analyzed
- NS : Not Sampled
- \* Compounds detected within the chromatographic range of gasoline but not characteristic of the standard gasoline pattern.
- ^ Compounds detected within the chromatographic range of diesel with pattern typical of weathered diesel.
- \*\* Compounds detected within the chromatographic range of diesel appears to include gasoline compounds.
- ^^ Ground water elevation not used to define contours on Figure 3. See text.

# FIGURES



SCALE 1:24 000



NORTH

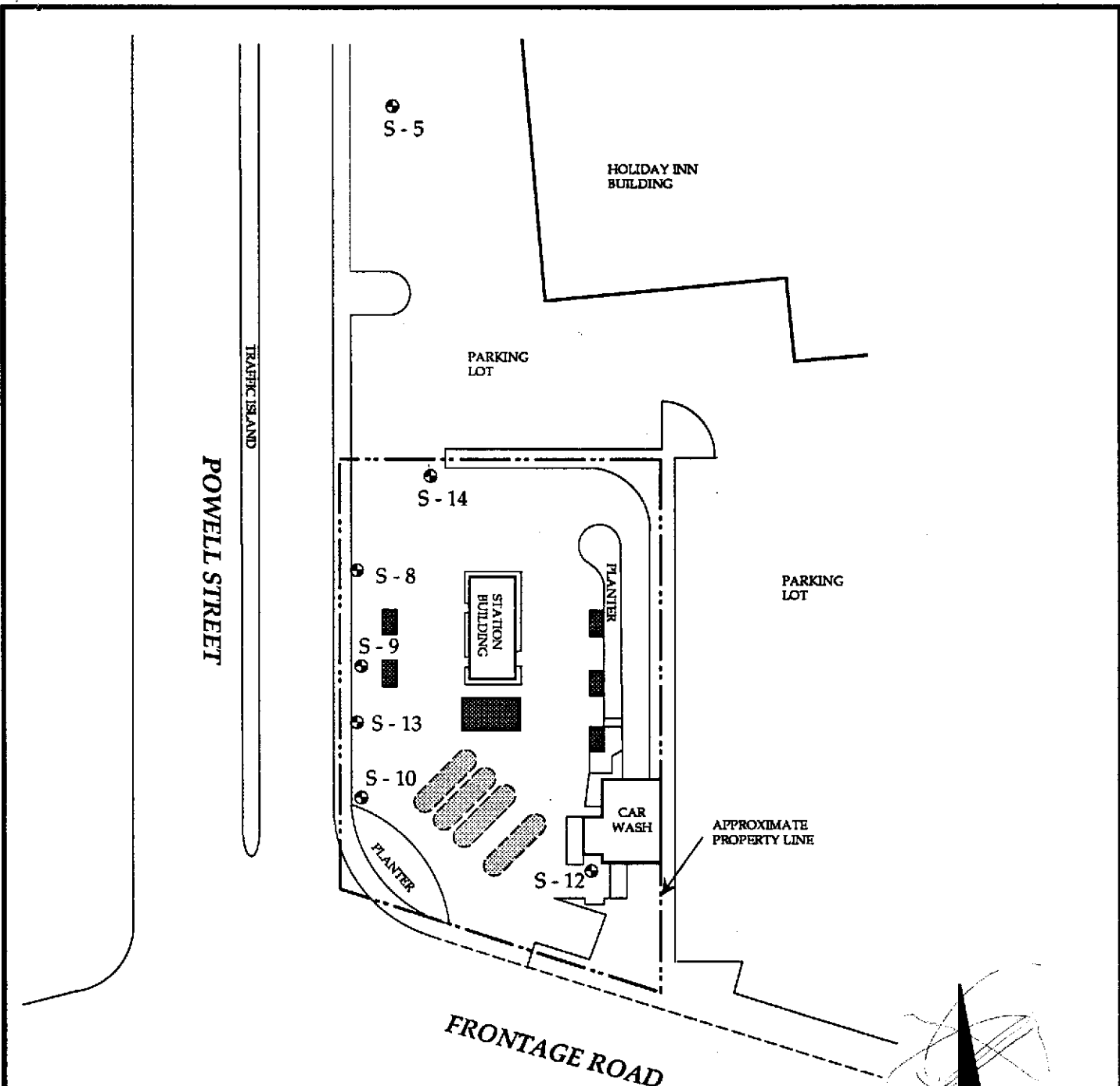
SOURCE:  
USGS 7.5 MINUTE SERIES  
OAKLAND WEST QUADRANGLE  
PHOTOREVISED 1980

**HYDR -  
ENVIRONMENTAL  
TECHNOLOGIES, INC.**

**SITE LOCATION MAP**  
Shell Service Station  
1800 Powell Street  
Emeryville, California  
WIC # 204-2495-0101

Figure  
**1**

12-003 7/93



**EXPLANATION**

S - 1 ● = Monitoring Well

 = Underground Fuel Storage Tanks

 = Service Islands



APPROXIMATE SCALE IN FEET

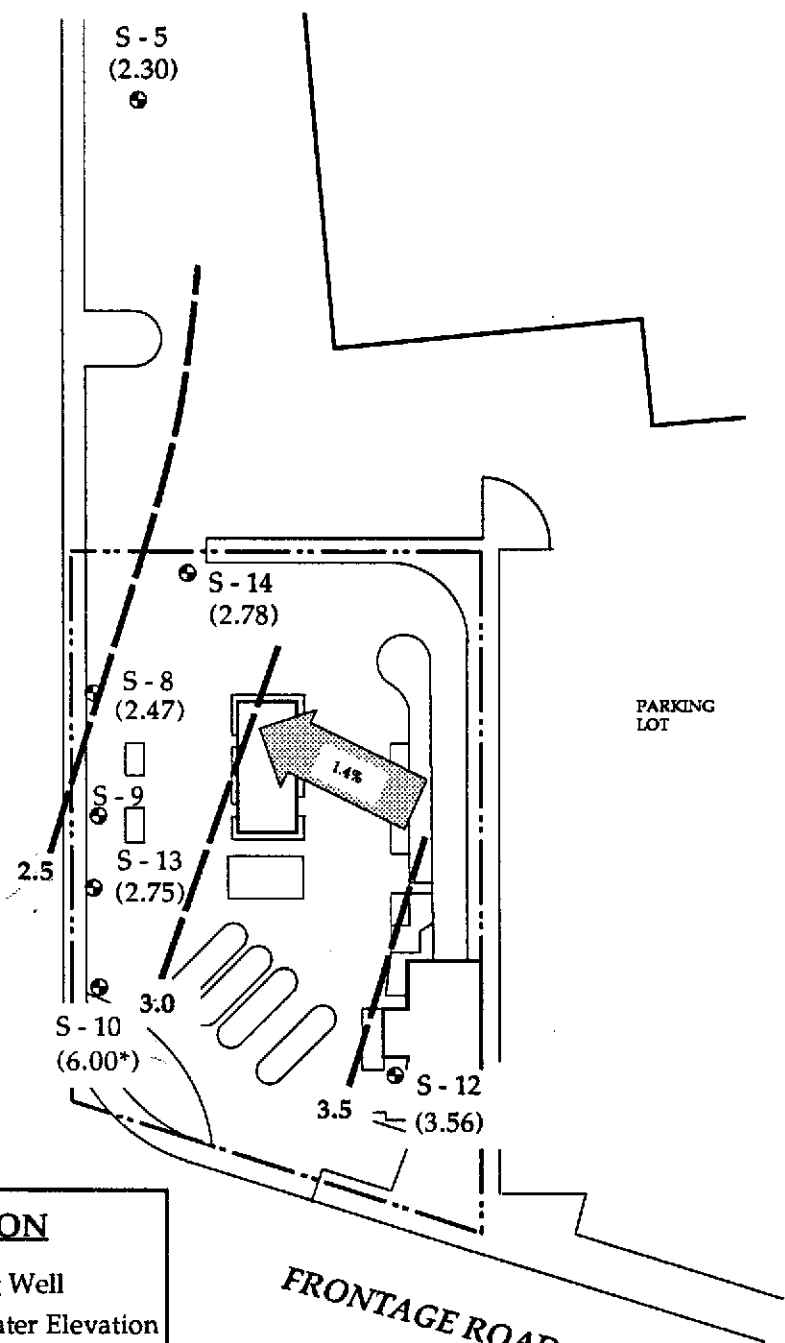
**HYDR**  
**ENVIR**  
**TECHN**  
**LOGIES, INC.**

**SITE PLAN**  
 Shell Service Station  
 1800 Powell Street  
 Emeryville, California  
 WIC # 204-2495-0101

Figure  
 2

12-003 12/93

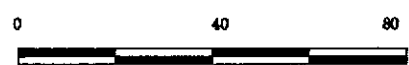
POWELL STREET



PARKING LOT

FRONTAGE ROAD

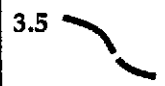
NORTH



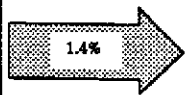
APPROXIMATE SCALE IN FEET

**EXPLANATION**

- S - 1 ● = Monitoring Well
- (2.75) = Ground Water Elevation in feet
- (6.00\*) = Elevation not used to Define Contours See Text for Explanation



= Ground Water Elevation Contour



= Approximate Ground Water Gradient

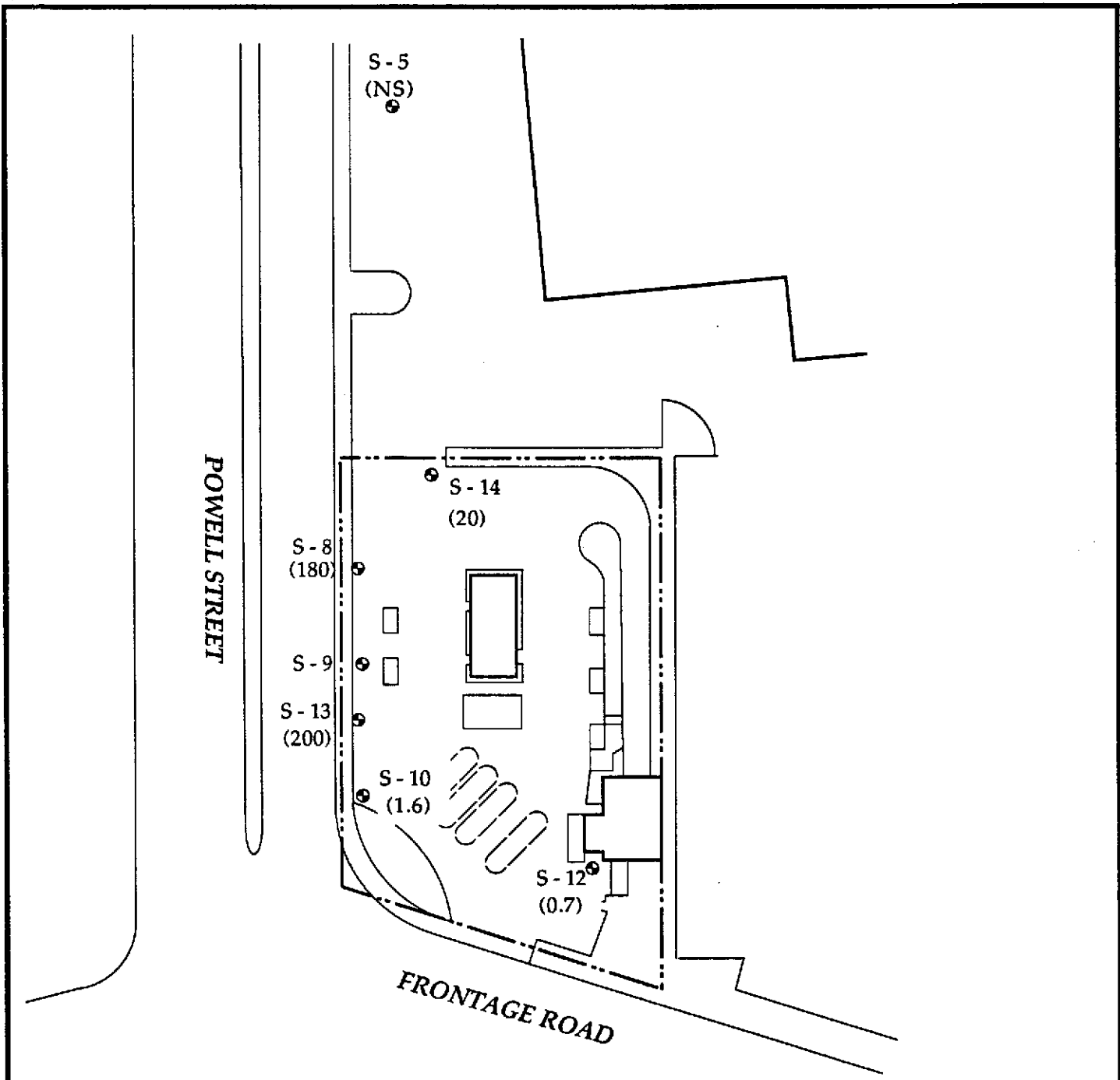
BASED ON DATA COLLECTED 11/12/93

**HYDR**  
**ENVIR** **NMENTAL**  
**TECHN** **LOGIES, INC.**

**GROUND WATER  
 CONTOUR MAP**  
 Shell Service Station  
 1800 Powell Street  
 Emeryville, California  
 WIC # 204-2495-0101

Figure  
**3**

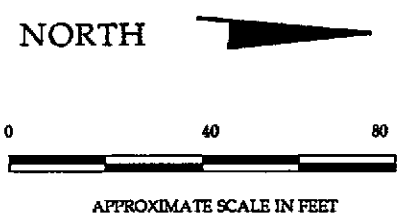
12-003 12/93



**EXPLANATION**

S-1 ● = Monitoring Well

(530) = Benzene Concentration in ppb



BASED ON DATA COLLECTED 11/12/93

**HYDR-  
ENVIRONMENTAL  
TECHNOLOGIES, INC.**

**BENZENE  
CONCENTRATION MAP**  
Shell Service Station  
1800 Powell Street  
Emeryville, California  
WIC # 204-2495-0101

**Figure  
4**

12-003 12/93



# ATTACHMENTS

## TABLE OF WELL GAUGING DATA

WELL I.D.	DATA COLLECTION DATE	MEASUREMENT REFERENCED TO	QUALITATIVE OBSERVATIONS (sheen)	DEPTH TO FIRST IMMISCIBLES LIQUID (FPZ) (feet)	THICKNESS OF IMMISCIBLES LIQUID ZONE (feet)	VOLUME OF IMMISCIBLES REMOVED (ml)	DEPTH TO WATER (feet)	DEPTH TO WELL BOTTOM (feet)
S-5	11/12/93	TOC	—	NONE	—	—	9.42	12.10
S-8 *	11/12/93	TOC	SHEEN	—	—	—	10.29	18.50
S-10	11/12/93	TOC	—	NONE	—	—	6.58	19.55
S-12	11/12/93	TOC	—	NONE	—	—	9.28	23.81
S-13	11/12/93	TOC	—	NONE	—	—	9.84	20.06
S-14	11/12/93	TOC	—	NONE	—	—	9.91	23.26

\* Sample DUP was a duplicate sample taken from well S-8.



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Serial No: 9311204

Date: \_\_\_\_\_  
Page 1 of 1

#204 9311204 (18) (10/18)

Site Address: 1800 Powell Street, Emeryville

WIC#: 204-2495-0101

Shell Engineer: Dan Kirk  
Phone No.: (510) 675-6168  
Fax #: 675-6160

Consultant Name & Address:  
Blaine Tech Services, Inc.  
985 Timothy Drive San Jose, CA 95133

Consultant Contact: Jim Keller  
Phone No.: (408) 995-5535  
Fax #: 293-8773

Comments:

Sampled by: *[Signature]*

Printed Name: JERRY BOTTORFF

**Analysis Required**

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/802)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
X					X				
					X				
					X				
					X				
					X				
					X				
					X				
					X				
					X				

LAB: Anamatrix

CHECK ONE (1) SOX ONLY	CI/DI	TURN AROUND TIME
Quantity Monitoring <input checked="" type="checkbox"/> 6441		24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/> 6441		48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/> 6442		16 days <input checked="" type="checkbox"/> (Home)
Water Classify/Disposal <input type="checkbox"/> 6443		Other <input type="checkbox"/>
Soil/Air Exam. of Sys. O & M <input type="checkbox"/> 6442		
Water Exam. of Sys. O & M <input type="checkbox"/> 6443		
Other <input type="checkbox"/>		

NOTE: Hally Lab as soon as possible of 24/48 hr. lab.

Sample ID	Date	Sludge	Soil	Water	Air	No. of conis.	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
① S-14	11/12			X		5		
② S-10	11/12			X		3		
③ S-13	11/12			X		5		
④ S-8	11/12			X		3		
⑤ S-12	11/12			X		5		
⑥ TB	11/12			X		12		
⑦ DUP	11/12					3		

Relinquished by (signature): <i>[Signature]</i>	Printed Name: <u>JERRY BOTTORFF</u>	Date: <u>11-15-93</u>	Received (signature): <i>[Signature]</i>	Printed Name: <u>Brandy S. Corcoran</u>	Date: <u>11-15-93</u>
Relinquished by (signature): <i>[Signature]</i>	Printed Name: <u>Brandy S. Corcoran</u>	Date: <u>11-15-93</u>	Received (signature): <i>[Signature]</i>	Printed Name: <u>Brandy Falcon</u>	Date: <u>11/15/93</u>
Relinquished by (signature): <i>[Signature]</i>	Printed Name: _____	Date: _____	Received (signature): <i>[Signature]</i>	Printed Name: _____	Date: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



# Inchcape Testing Services

## Anametrix Laboratories

1961 Concourse Drive  
Suite E  
San Jose, CA 95131  
Tel: 408-432-8192  
Fax: 408-432-8198

MR. JIM KELLER  
BLAINE TECH  
985 TIMOTHY DRIVE  
SAN JOSE, CA 95133

Workorder # : 9311204  
Date Received : 11/15/93  
Project ID : 204-2495-0101  
Purchase Order: MOH-B813

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9311204- 1	S-14
9311204- 2	S-10
9311204- 3	S-13
9311204- 4	S-8
9311204- 5	S-12
9311204- 6	TB
9311204- 7	DUP

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.  
Laboratory Director

12-02-93

Date

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER  
BLAINE TECH  
985 TIMOTHY DRIVE  
SAN JOSE, CA 95133

Workorder # : 9311204  
Date Received : 11/15/93  
Project ID : 204-2495-0101  
Purchase Order: MOH-B813  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9311204- 1	S-14	WATER	11/12/93	TPHd
9311204- 3	S-13	WATER	11/12/93	TPHd
9311204- 5	S-12	WATER	11/12/93	TPHd
9311204- 1	S-14	WATER	11/12/93	TPHgBTEX
9311204- 2	S-10	WATER	11/12/93	TPHgBTEX
9311204- 3	S-13	WATER	11/12/93	TPHgBTEX
9311204- 4	S-8	WATER	11/12/93	TPHgBTEX
9311204- 5	S-12	WATER	11/12/93	TPHgBTEX
9311204- 6	TB	WATER	11/12/93	TPHgBTEX
9311204- 7	DUP	WATER	11/12/93	TPHgBTEX

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. JIM KELLER  
BLAINE TECH  
985 TIMOTHY DRIVE  
SAN JOSE, CA 95133

Workorder # : 9311204  
Date Received : 11/15/93  
Project ID : 204-2495-0101  
Purchase Order: MOH-B813  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as gasoline for sample S-12 is due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.

Cheryl Belmer 12/1/93  
Department Supervisor Date

Lucia Shear 12/1/93  
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9311204  
Matrix : WATER  
Date Sampled : 11/12/93

Project Number : 204-2495-0101  
Date Released : 11/19/93

Reporting Limit	Sample I.D.# S-14	Sample I.D.# S-10	Sample I.D.# S-13	Sample I.D.# S-8	Sample I.D.# S-12	
COMPOUNDS (ug/L)	-01	-02	-03	-04	-05	
Benzene	0.5	20	1.6	200	180	0.7
Toluene	0.5	57	1.3	15	8.0	0.5
Ethylbenzene	0.5	25	1.4	8.6	<2.5	ND
Total Xylenes	0.5	69	6.2	58	15	3.4
TPH as Gasoline	50	710	320	2800	910	210
% Surrogate Recovery	94%	94%	104%	100%	90%	
Instrument I.D.	HP12	HP12	HP12	HP12	HP12	
Date Analyzed	11/16/93	11/16/93	11/17/93	11/17/93	11/16/93	
RLMF	2	2	10	5	1	

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor (Dilution).

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Lucia Shor 12/1/93  
Analyst Date

Cheryl Baermer 12/1/93  
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9311204  
Matrix : WATER  
Date Sampled : 11/12/93

Project Number : 204-2495-0101  
Date Released : 11/19/93

	Reporting Limit	Sample I.D.# TB	Sample I.D.# DUP	Sample I.D.# BN1601E1	Sample I.D.# BN1701E1
COMPOUNDS	(ug/L)	-06	-07	BLANK	BLANK
Benzene	0.5	ND	270	ND	ND
Toluene	0.5	ND	7.6	ND	ND
Ethylbenzene	0.5	ND	<5.0	ND	ND
Total Xylenes	0.5	ND	14	ND	ND
TPH as Gasoline	50	ND	830	ND	ND
% Surrogate Recovery		97%	99%	96%	95%
Instrument I.D.		HP12	HP12	HP12	HP12
Date Analyzed		11/17/93	11/17/93	11/16/93	11/17/93
RLMF		1	10	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor (Dilution).

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Lucia Shar 12/1/93  
Analyst Date

Cheryl Balmer 12/1/93  
Supervisor Date



ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL  
ANAMETRIX, INC. (408) 432-8192

Anamatrix W.O.: 9311204  
Matrix : WATER  
Date Sampled : 11/12/93  
Date Extracted: 11/17/93

Project Number : 204-2495-0101  
Date Released : 12/01/93  
Instrument I.D.: HP9

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9311204-01	S-14	11/23/93	1000	28000	46%
9311204-03	S-13	11/23/93	100	2800	46%
9311204-05	S-12	11/27/93	250	4100	51%
BN1711F1	METHOD BLANK	11/22/93	50	ND	30%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.  
The surrogate recovery limits for C25 are 30-130%.

ND - Not detected at or above the practical quantitation limit for the method.  
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 12/2/93  
Analyst Date

Cheryl Belman 12/2/93  
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT  
 EPA METHOD 5030 WITH GC/PID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE  
 Matrix : WATER  
 Date Sampled : N/A  
 Date Analyzed : 11/16/93

Anamatrix I.D. : MN1601E3  
 Analyst : IS  
 Supervisor : CB  
 Date Released : 11/18/93  
 Instrument I.D.: HP12

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS *
Benzene	20.0	19.3	97%	52-133
Toluene	20.0	21.1	106%	57-136
Ethylbenzene	20.0	22.9	115%	56-139
Total Xylenes	20.0	21.2	106%	56-141
P-BFB			108%	61-139

\* Quality control limits established by Anamatrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT  
 EPA METHOD 5030 WITH GC/PID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE  
 Matrix : WATER  
 Date Sampled : N/A  
 Date Analyzed : 11/17/93

Anamatrix I.D. : MN1701E1  
 Analyst : IS  
 Supervisor : *JS*  
 Date Released : 11/18/93  
 Instrument I.D.: HP12

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS *
Benzene	20.0	15.5	78%	52-133
Toluene	20.0	16.6	83%	57-136
Ethylbenzene	20.0	18.2	91%	56-139
Total Xylenes	20.0	16.6	83%	56-141
P-BFB			112%	61-139

\* Quality control limits established by Anamatrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT  
 EPA METHOD 3510 WITH GC/FID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE  
 Matrix : WATER  
 Date Sampled : N/A  
 Date Extracted: 11/17/93  
 Date Analyzed : 11/20/93

Anametrix I.D. : MN1711F1  
 Analyst : IS  
 Supervisor : *CS*  
 Date Released : 12/01/93  
 Instrument I.D.: HP19

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	1090	87%	1220	98%	11%	47-130
SURROGATE			55%		60%		30-130

\* Quality control limits established by Anametrix, Inc.



# SHELL WELL MONITORING DATA SHEET

Project #: <u>93112-J1</u>	Wic # <u>204 2495 0101</u>
Sampler: <u>JB</u>	Date Sampled:
Well I.D.: <u>S-5</u>	Well Diameter: (circle one) 2 3 4 6 <u>8</u>
Total Well Depth: Before <u>12.10</u> After	Depth to Water: Before <u>9.42</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u> Grade Other --	

Volume Conversion Factor (VCF):  
 $(12 \div (d^2/4) \times \pi) / 2.31$   
 where:  
 12 = 12/feet  
 d = diameter (in.)  
 π = 3.1416  
 2.31 = 2.31/feet

Well dia.	VCF
2"	0.24
3"	0.57
4"	0.98
6"	2.27
8"	3.98
10"	6.17

*unable to sample  
cap parked on top*

\_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_  
 1 Case Volume                      Specified Volumes                      gallons

Purging: Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Suction Pump <input type="checkbox"/> Type of Installed Pump _____	Sampling: Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Suction Pump <input type="checkbox"/> Installed Pump <input type="checkbox"/>
---	---

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:

Did Well Dewater?                      If yes, gals.                      Gallons Actually Evacuated:

Sampling Time: \_\_\_\_\_

Sample I.D.: \_\_\_\_\_                      Laboratory: \_\_\_\_\_

Analyzed for: \_\_\_\_\_

Duplicate I.D.: \_\_\_\_\_                      Cleaning Blank I.D.: \_\_\_\_\_

Analyzed for: \_\_\_\_\_

Shipping Notations: \_\_\_\_\_

Additional Notations: \_\_\_\_\_

# SHELL WELL MONITORING DATA SHEET

Project #: <u>Q31112-J1</u>	Wic # <u>204-2495-0101</u>
Sampler: <u>J. BOTTOEFF</u>	Date Sampled: <u>11/12/93</u>
Well I.D.: <u>5-8</u>	Well Diameter: (circle one) 2 <u>3</u> 4 6
Total Well Depth: Before <u>18.50</u> After	Depth to Water: Before <u>10.29</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u> Grade Other --	

Volume Conversion Factor (VCF):  
 $VCF = (d^2/A) \times \pi / 2.31$   
 where:  
 $d = \text{dia in feet}$   
 $A = \text{dia in in.}$   
 $\pi = 3.1416$   
 $2.31 = \text{ft/psi}$

Well dia.	VCF
2"	0.16
3"	0.37
4"	0.68
5"	1.07
6"	1.46
8"	2.54
10"	4.08
12"	6.17

3.0 x 3 = 9  
 1 Case Volume                      Specified Volumes                      =                      gallons

Purging: Bailer                       Sampling: Bailer   
 Middleburg                                       Middleburg   
 Electric Submersible                                       Electric Submersible   
 Suction Pump                                       Suction Pump   
 Type of Installed Pump \_\_\_\_\_                                      Installed Pump

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1100	66.2	6.9	710000	53.2	3	Shaken
1102	67.2	6.9	710000	156.6	6	
1104	67.6	7.0	710000	147.6	9	

Did Well Dewater?  If yes, gals.                      Gallons Actually Evacuated: 10

Sampling Time: 1110

Sample I.D.: S-8                      Laboratory: (A)

Analyzed for: TPH GAS BTEX

Duplicate I.D.: DUP                      Cleaning Blank I.D.:

Analyzed for: TPH GAS BTEX

Shipping Notations:

Additional Notations:

SHELL WELL MONITORING DATA SHEET

Project #: <u>CB1112-J1</u>	Wic # <u>204-2495-0101</u>
Sampler: <u>J. BOTTORFF</u>	Date Sampled: <u>11/12/93</u>
Well I.D.: <u>S-10</u>	Well Diameter: (circle one) 2 3 4 <u>6</u>
Total Well Depth: Before <u>19.55</u> After	Depth to Water: Before <u>6.58</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>PVC</u>	Grade Other --

Volume Conversion Factor (VCF):  
 $(12 \div (d^2/4) \times \pi) / 2.31$   
 where:  
 12 = 12 in/ft  
 d = diameter (in.)  
 π = 3.1416  
 2.31 = 2.31 ft/lb

Well dia.	VCF
2"	0.14
3"	0.32
4"	0.61
6"	1.47
8"	3.04
10"	4.70

<u>19.1</u>	x	<u>3</u>	=	<u>57.3</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input checked="" type="checkbox"/> Suction Pump <input type="checkbox"/> Type of Installed Pump _____	Sampling: Bailer <input checked="" type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Suction Pump <input type="checkbox"/> Installed Pump <input type="checkbox"/>
--	--

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
1047	64.4	7.7	350	168.6	20.0	
	<u>DEWATERED</u>					
1225	64.1	7.7	>10000	>200		RETURN TO SAMPLE DTW @ <u>6.73</u>

Did Well Dewater?  If yes, gals. 20 Gallons Actually Evacuated: 21

Sampling Time: 1225

Sample I.D.: S-10 Laboratory: A

Analyzed for: TPH GAS BTEX

Duplicate I.D.: \_\_\_\_\_ Cleaning Blank I.D.: \_\_\_\_\_

Analyzed for: \_\_\_\_\_

Shipping Notations: \_\_\_\_\_

Additional Notations: \_\_\_\_\_



# SHELL WELL MONITORING DATA SHEET

Project #: <u>JB</u>	Wic # <u>204-24950101</u>
Sampler: <u>93112-J1</u>	Date Sampled: <u>11/12/93</u>
Well I.D.: <u>S-12</u>	Well Diameter: (circle one) 2 <u>(3)</u> 4 6
Total Well Depth: Before <u>23.81</u> After	Depth to Water: Before <u>9.28</u> After
Depth to Free Product:	Thickness of Free Product (feet):
Measurements referenced to: <u>EVC</u> Grade Other --	

Volume Conversion Factor (VCF):  
 $VCF = (d^2/16) \times \pi / 2.31$   
 where:  
 d = diameter (in.)  
 $\pi = 3.1416$   
 2.31 = ft/2.31 gal

Well dia.	VCF
2"	0.16
3"	0.37
4"	0.56
6"	1.07
8"	1.64
10"	2.31

<u>5.4</u>	x	<u>3</u>	=	<u>16.2</u>
1 Case Volume		Specified Volumes		gallons

Purging: Bailer  Middleburg  Electric Submersible  Suction Pump  Type of Installed Pump \_\_\_\_\_

Sampling: Bailer  Middleburg  Electric Submersible  Suction Pump  Installed Pump

TIME	TEMP. (F)	pH	COND.	TURBIDITY:	VOLUME REMOVED:	OBSERVATIONS:
<u>1130</u>	<u>64.8</u>	<u>8.2</u>	<u>&gt;10000</u>	<u>172.8</u>	<u>6.0</u>	
<u>1132</u>	<del>64.8</del>	<u>8.2</u>	<u>&gt;10000</u>	<u>56.4</u>	<u>12.0</u>	
<u>1134</u>	<u>66.7</u>	<u>8.2</u>	<u>&gt;10000</u>	<u>41.4</u>	<u>16.5</u>	

Did Well Dewater? N If yes, gals. Gallons Actually Evacuated: 17.0

Sampling Time: 1140

Sample I.D.: S-12 Laboratory: (A)

Analyzed for: TPH GAS BTEX DIESEL

Duplicate I.D.: \_\_\_\_\_ Cleaning Blank I.D.: \_\_\_\_\_

Analyzed for: \_\_\_\_\_

Shipping Notations: \_\_\_\_\_

Additional Notations: \_\_\_\_\_