HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

2363 Mariner Square Drive, Suite 243
Alameda, CA 94501
Tel: 510-521-2684
Fax 510-521-5078

1-800-347-HETI
Massachusetts
New York

ALCO HAZMAT
93 NOV 15 PM 3:24

#13 Sooner or later Shell + Chevron must agree with standard method(s) for each of the rate. Give it 2 more qtrs

November 1, 1993

12-010

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

Re: Shell Service Station, 4411 Foothill Boulevard, Oakland, California
WIC# 204-5508-3400

Dear Mr. Kirk,

Hydro-Environmental Technologies, Inc. (HETI) is pleased to present this report on the third quarter of 1993 ground water sampling at the referenced location (Figure 1). Information presented in this report is based on the results of lab analysis of ground water samples collected by the Shell Oil Company (Shell) sampling contractor on September 21, 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 three ground water monitoring wells present on-site (Figure 2). Monitoring well S-1 was installed in November 1992 by GeoStrategies, Inc. and monitoring wells S-2 and S-3 were installed by HETI in May 1993.

Results of the Third Quarter, 1993 Ground Water Sampling
Ground Water Gradient:
The depth to ground water in monitoring wells S-1, S-2 and S-3 was measured by the Shell sampling contractor, Blaine Tech Services, Inc. (Blaine), on September 21, 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, ground water flow is towards the west. The ground water gradient is calculated to be approximately 0.0125 ft/ft. As shown on Table 1, ground water has fallen approximately 1 to 1.7 feet since June 8, 1993, the last time all wells were gauged.

Ground Water Analytical Data:
Low to medium boiling point hydrocarbons (TPHg) and volatile aromatic hydrocarbons (BTEX) were detected in the water samples collected from S-1, S-2 and S-3 on September 21, 1993. The reported benzene concentrations in water samples

collected from the wells are presented graphically on Figure 4. High boiling point hydrocarbons (TPHd) were detected in the water sample collected from S-1. The laboratory noted, however, that the concentration reported as TPHd for sample S-1 is primarily due to the presence of lighter hydrocarbons, possibly gasoline. Blaine sampling and Anametrix Laboratories analytical data are presented as an attachment to this report. Current and historical analytical results are presented in Table 1.

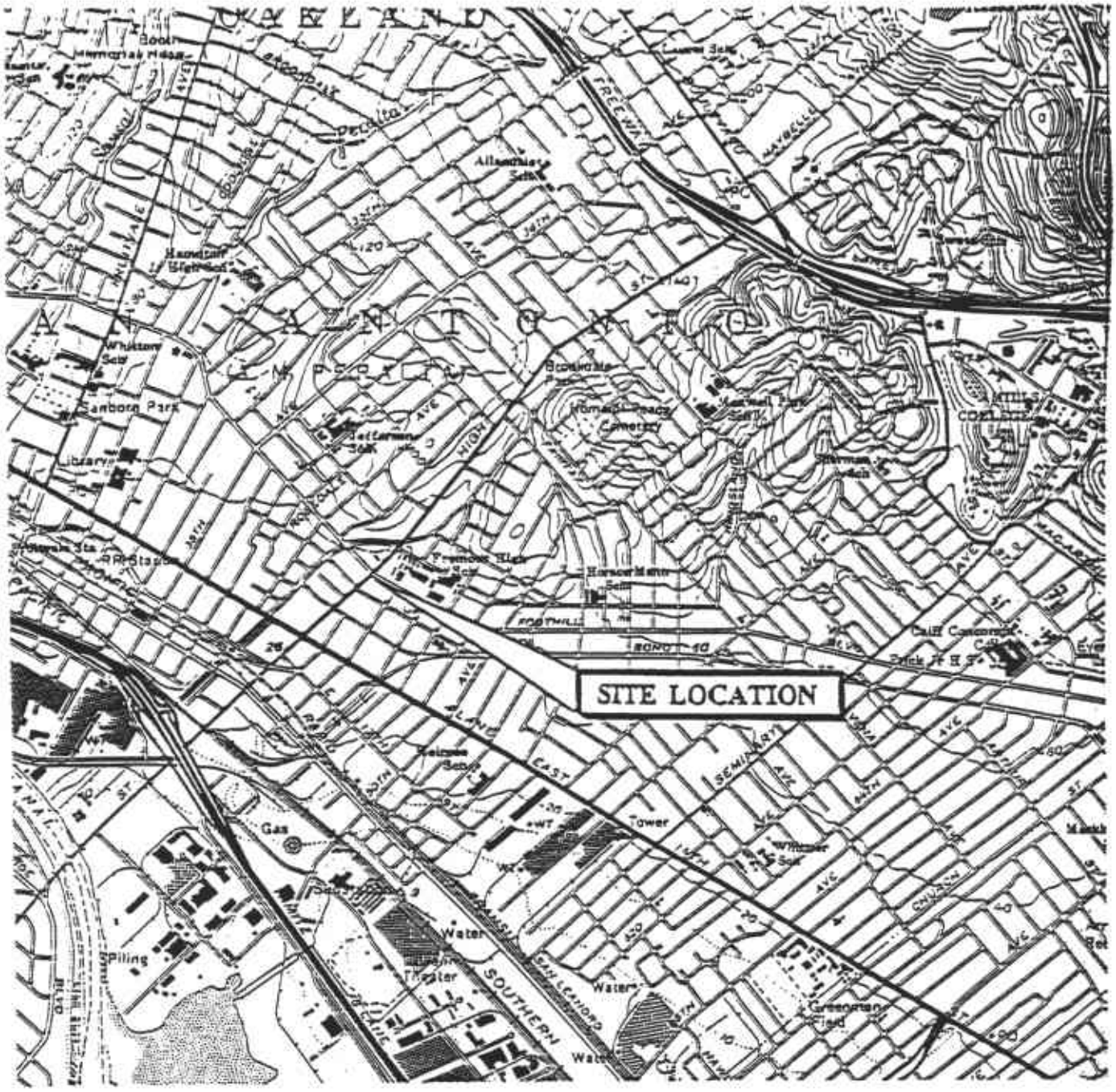
All information and interpretation in this report is presented in accordance with currently accepted professional practices. This report has been prepared for the sole use of Shell Oil Company. Any reliance on the information presented herein by third parties will be at such parties' sole risk. HETI 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. Mr. Barney Chan, Alameda Co. Dept. of Environmental Health
Mr. Rich Hiett, SF Bay RWQCB

FIGURES



SOURCE:
USGS 7.5 MINUTE SERIES
OAKLAND EAST QUADRANGLE
PHOTOREVISED 1980

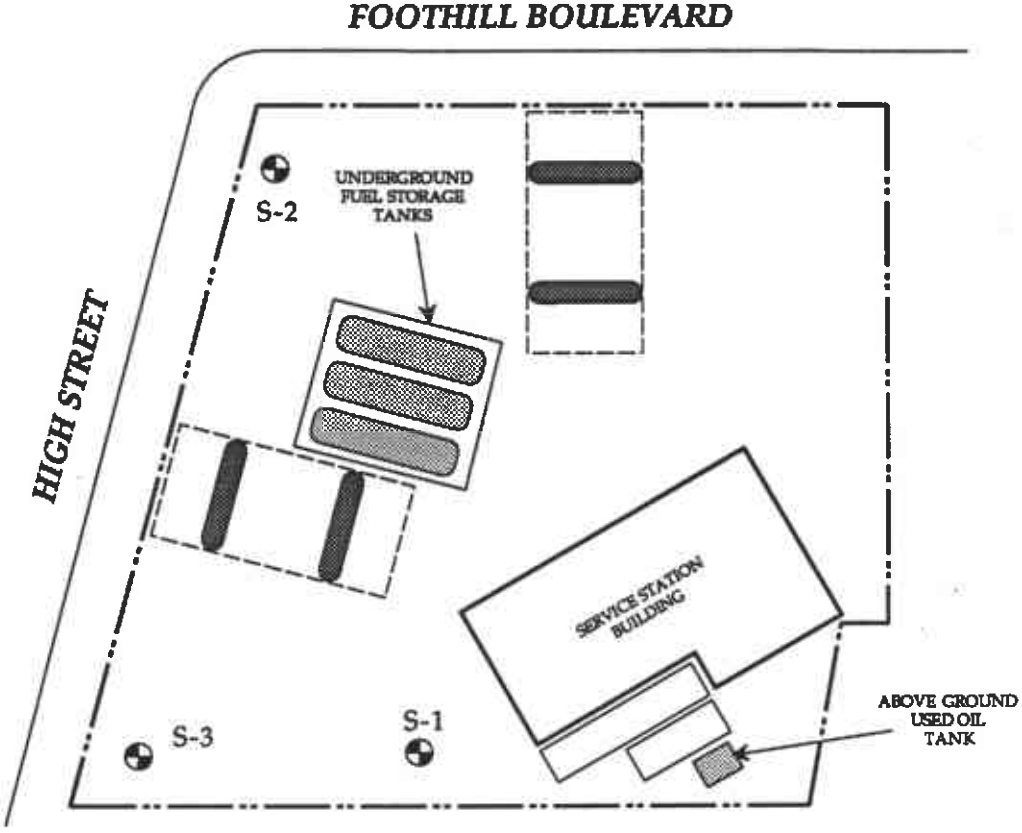
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE LOCATION MAP

Shell Service Station
4411 Foothill Boulevard
Oakland, California
WIC #204-5508-3400

Figure
1

12-010 11/93



LEGEND

S-1 = Existing Monitoring Well

= Canopy and Dispenser Islands

= Storage Containers

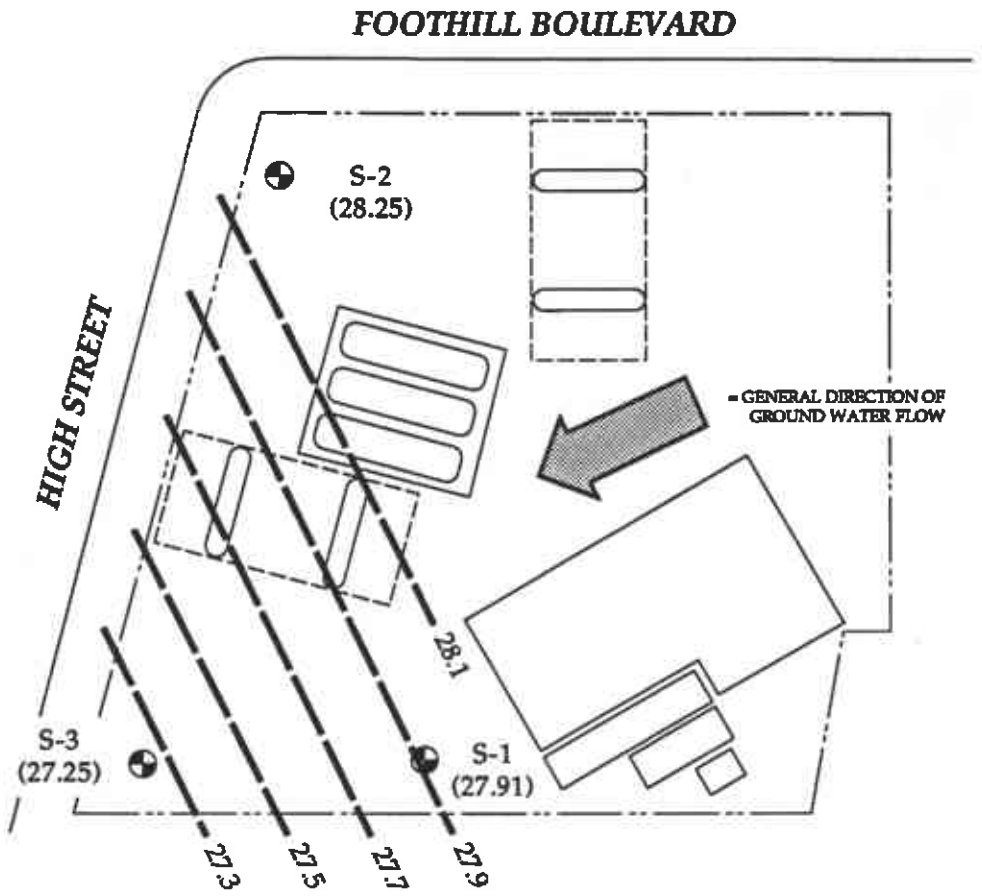
= Property Boundary

NORTH

0 40 80

APPROXIMATE SCALE IN FEET

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.	**SITE PLAN** Shell Service Station 4411 Foothill Boulevard Oakland, California WIC #204-5508-3400	Figure **2** 12-010 11/93



LEGEND

S-1 = Existing Monitoring Well

(27.91) = Ground Water Elevation

27.2 = Ground Water Elevation Contour

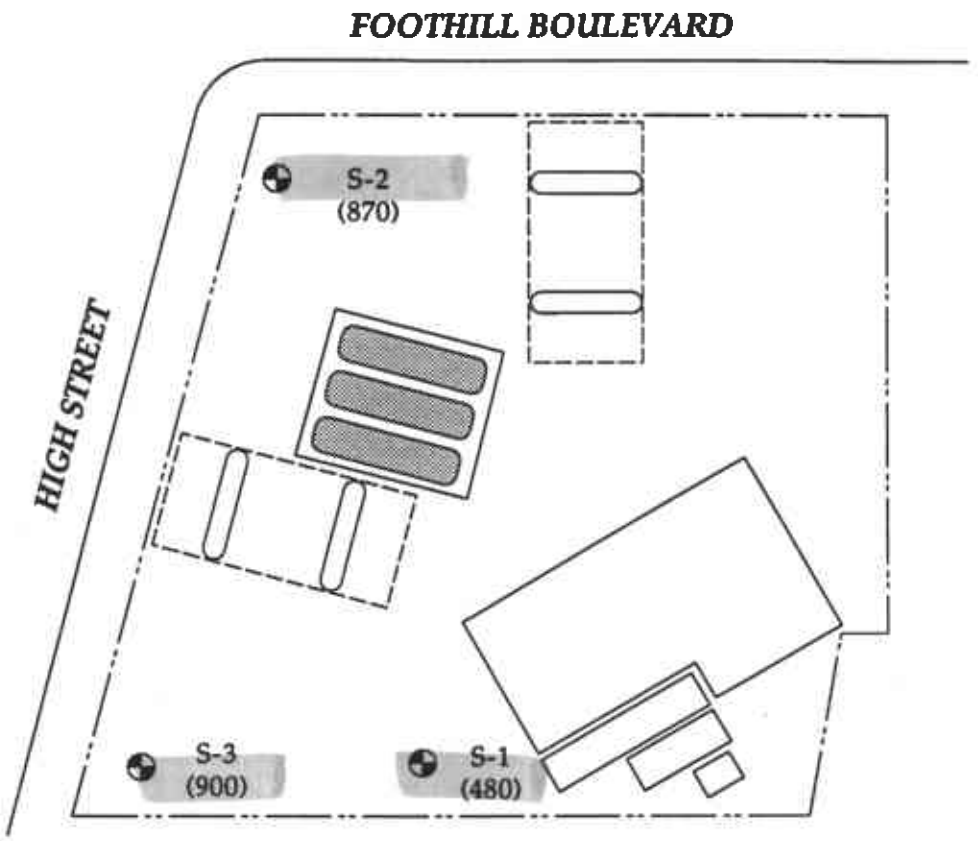
NORTH

0 40 80

APPROXIMATE SCALE IN FEET

BASED ON DATA COLLECTED ON 9/21/93

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.	GROUND WATER CONTOUR MAP Shell Service Station 4411 Foothill Boulevard Oakland, California WIC #204-5508-3400	Figure 3 12-010 11/93



LEGEND

S-1 = Existing Monitoring Well

(1,500) = Dissolved Benzene Concentration - in ppb

NORTH

0 40 80

APPROXIMATE SCALE IN FEET

GROUND WATER SAMPLES COLLECTED ON 9/21/93

HYDR-ENVIRONMENTAL TECHNOLOGIES, INC.	**BENZENE CONCENTRATION MAP** Shell Service Station 4411 Foothill Boulevard Oakland, California WIC #204-5508-3400	Figure **4** 12-010 11/93

Table 1
SUMMARY OF GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS
Shell Service Station - WIC#204-6852-1008
4411 Foothill Boulevard, Oakland, California

Well Number	Sampling Date	TOB (feet)	DTW (feet)	GWE (feet)	TPHmo (ppb)	TPHd (ppb)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)
S-1	12/18/92^	—	9.06	—	9400*	—	41,000	3,100	1,100	1,200	8,700
	5/26/93	38.31	—	—	370	6000**	39,000	1,300	4,700	1,500	7,800
	5/28/93	38.31	12.13	26.18	—	—	—	—	—	—	—
	6/3/93	38.31	8.89	29.42	—	—	—	—	—	—	—
	6/8/93	38.31	8.80	29.51	—	—	—	—	—	—	—
	9/21/93	38.31	10.40	27.91	ND<250	5900**	34,000	480	5,000	3,800	18,000
S-2											
	5/28/93	38.79	9.51	25.95	—	—	—	—	—	—	—
	6/3/93	38.79	9.51	29.28	—	—	—	—	—	—	—
	6/8/93	38.79	9.57	29.22	—	—	—	—	—	—	—
	6/29/93	38.79	—	—	—	—	1,300	290	35	38	130
	9/21/93	38.79	10.54	28.25	—	—	3,300	870	24	190	120
S-3											
	5/28/93	37.33	8.45	28.88	—	—	—	—	—	—	—
	6/3/93	37.33	8.36	28.97	—	—	—	—	—	—	—
	6/8/93	37.33	8.41	28.92	—	—	—	—	—	—	—
	6/29/93	37.33	—	—	—	—	29,000	1,500	1,800	950	6,200
	9/21/93	37.33	10.08	27.25	—	—	15,000	900	2,200	2,600	11,000

Notes:

TOB	Top of well box referenced to mean sea level
DTW	Depth to water
GWE	Ground water elevation
TPHmo	Total petroleum hydrocarbons as motor oil by EPA Method 8015 (modified)
TPHd	Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified)
TPHg	Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified)
BTEX	Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020 (modified)
^	Phenolic and napthalene compounds detected in sample S-1 by semi-volatile organics GC/MS by EPA Method 8270
*	<C22
**	Primarily C6-C12
—	Not measured/not tested

APPENDIX A

BLAINE
TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

October 14, 1993

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

Attn: Daniel T. Kirk

SITE:
Shell WIC #204-5508-3400
4411 Foothill Blvd.
Oakland, California

QUARTER:
3rd quarter of 1993

QUARTERLY GROUNDWATER SAMPLING REPORT 930921-F-1

This report contains data collected during routine inspection, gauging and sampling of groundwater monitoring wells performed by Blaine Tech Services, Inc. in reponse 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 removed in cases where the well dewaters 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/lpn

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 95110
ATTN: Markus Niebanck

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-1	9/21/93	TOB	–	NONE	–	–	10.40	24.73
S-2 *	9/21/93	TOB	ODOR	NONE	–	–	10.54	22.41
S-3	9/21/93	TOB	–	NONE	–	–	10.08	20.50

* Sample DUP was a duplicate sample taken from well S-2.

9309279 (19/38) (18) CR 1:30

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: _____

Date: 9/21/93
Page 1 of 1

Site Address: 4411 Foothill Blvd., Oakland

WIC#: 204-5508-3400

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: Tom Flory

LAB: Anametrix

Analysis Required

CHECK ONE (1) BOX ONLY — CT/DI

- Quarterly Monitoring ☒ 6441
- Site Investigation ☐ 6441
- Soil Classify/Disposal ☐ 6442
- Water Classify/Disposal ☐ 6443
- Soil/Air Rem. or Sys. O & M ☐ 6442
- Water Rem. or Sys. O & M ☐ 6443
- Other ☐

TURN AROUND TIME

- 24 hours ☐
- 48 hours ☐
- 15 days ☒ (Normal)
- Other ☐

NOTE: Notify ... as soon as Possible of 24/48 hr. TAT.

Sample ID	Time	Date	Sludge	Soil	Water	Air	No. of cont.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	MTBE		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(1) S-1	1400	9/21/93			X		5		X				X	X						WATER and 40mL VOAs	OK
(2) S-2	1255	"			X		3						X								
(3) S-3	1320	"			X		3						X								
(4) DUP		"			X		3						X								
(5) TB		"			X		2						X								

Relinquished By (signature)	Printed Name	Date / Time	Received (signature)	Printed Name	Date / Time
[signature]	Tom Flory	9/22/93 9:30	Cristina V. Rayburn	CRISTINA V. RAYBURN	9/22/93 9:30
Cristina V. Rayburn	CRISTINA V. RAYBURN	9/22/93 10:15	[signature]	CALVIN ROBINSON	9-22-93 10:15
Relinquished By (signature):	Printed Name:	Date: Time:	Received (signature):	Printed Name:	Date: Time:

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 # : 9309279
Date Received : 09/22/93
Project ID : 204-5508-3400
Purchase Order: MOH-B813

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

ANAMETRIX ID	CLIENT SAMPLE ID
9309279- 1	S-1
9309279- 2	S-2
9309279- 3	S-3
9309279- 4	DUP
9309279- 5	TB

This report consists of 10 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.

Corinne Pham for
Sarah Schoen, Ph.D.
Laboratory Director

10/04/93
Date

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

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

Workorder # : 9309279
Date Received : 09/22/93
Project ID : 204-5508-3400
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9309279- 1	S-1	WATER	09/21/93	TPHd
9309279- 1	S-1	WATER	09/21/93	TPHgBTEX
9309279- 2	S-2	WATER	09/21/93	TPHgBTEX
9309279- 3	S-3	WATER	09/21/93	TPHgBTEX
9309279- 4	DUP	WATER	09/21/93	TPHgBTEX
9309279- 5	TB	WATER	09/21/93	TPHgBTEX

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

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

Workorder # : 9309279
Date Received : 09/22/93
Project ID : 204-5508-3400
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as diesel for sample S-1 is primarily due to the presence of a lighter petroleum product of hydrocarbon range C6-C12, possibly gasoline.

Cheryl Bedner 9/30/93
Department Supervisor Date

Reggie Dawson 10/1/93
Chemist Date

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

Anametrix W.O.: 9309279
Matrix : WATER
Date Sampled : 09/21/93

Project Number : 204-5508-3400
Date Released : 09/30/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# S-1 -01	Sample I.D.# S-2 -02	Sample I.D.# S-3 -03	Sample I.D.# DUP -04	Sample I.D.# TB -05
Benzene	0.5	480	870	900	700	ND
Toluene	0.5	5000	24	2200	130	ND
Ethylbenzene	0.5	3800	190	2600	250	ND
Total Xylenes	0.5	18000	120	11000	550	ND
TPH as Gasoline	50	34000	3300	15000	4500	ND
% Surrogate Recovery		109%	110%	124%	128%	116%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		09/28/93	09/27/93	09/24/93	09/24/93	09/24/93
RLMF		250	25	250	25	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).

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

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

Peggie Davison 10/1/93
Analyst Date

Cheryl Balmer 10/1/93
Supervisor Date

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

Anametrix W.O.: 9309279
Matrix : WATER
Date Sampled : N/A

Project Number : 204-5508-3400
Date Released : 09/30/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BS2402E2 BLANK	Sample I.D.# BS2701E2 BLANK	Sample I.D.# BS2801E2 BLANK
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND
% Surrogate Recovery		100%	103%	103%
Instrument I.D.		HP21	HP21	HP21
Date Analyzed		09/24/93	09/27/93	09/28/93
RLMF		1	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).

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

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

Reggie Dawson 10/1/93
Analyst Date

Cheryl Brewer 10/1/93
Supervisor Date

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

Anametrix W.O.: 9309279
Matrix : WATER
Date Sampled : 09/21/93
Date Extracted: 09/27/93

Project Number : 204-5508-3400
Date Released : 09/30/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9309279-01	S-1	09/28/93	250	5900	39%
BS271121	METHOD BLANK	09/29/93	50	ND	89%

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.

Peggie Davison 10/1/93
Analyst Date

Cheryl Bueman 10/1/93
Supervisor Date

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

Anametrix W.O.: 9309279
Matrix : WATER
Date Sampled : 09/21/93
Date Extracted: 09/27/93

Project Number : 204-5508-3400
Date Released : 09/30/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9309279-01	S-1	09/28/93	250	ND	39%
BS271121	METHOD BLANK	09/29/93	50	ND	89%

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 motor oil is determined by GCFID following sample extraction by EPA Method 3510.

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

Peggie Dawson 10/1/93
Analyst Date

Cheryl Bateman 10/1/93
Supervisor Date

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

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MS2401E3
Matrix	: WATER	Analyst	: RD
Date Sampled	: N/A	Supervisor	:
Date Analyzed	: 09/24/93	Date Released	: 10/01/93
		Instrument ID	: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	14.4	72%	52-133
Toluene	20.0	15.6	78%	57-136
Ethylbenzene	20.0	15.7	78%	56-139
TOTAL Xylenes	20.0	16.4	82%	56-141
P-BFB			116%	61-139

* Limits established by Anametrix, 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	Anametrix I.D.	: MS2701E1
Matrix	: WATER	Analyst	: RD
Date Sampled	: N/A	Supervisor	: [illegible]
Date Analyzed	: 09/27/93	Date Released	: 09/28/93
		Instrument I.D.	: HP21

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	14.6	73%	52-133
Toluene	20.0	16.5	83%	57-136
Ethylbenzene	20.0	16.7	84%	56-139
TOTAL Xylenes	20.0	17.7	89%	56-141
P-BFB			108%	61-139

* Limits established by Anametrix, 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 : 09/28/93

Anametrix I.D. : MS2801E3
Analyst : RD
Supervisor : [illegible]
Date Released : 10/01/93
Instrument I.D.: HP21

COMPOUND	SPIKE AMT (ug/L)	REC LCS (ug/L)	%REC LCS	REC LCSD (ug/L)	%REC LCSD	RPD	%REC LIMITS
BENZENE	20.0	18.2	91%	17.4	87%	-4%	52-133
TOLUENE	20.0	19.2	96%	18.6	93%	-3%	57-136
ETHYLBENZENE	20.0	19.9	99%	19.1	96%	-4%	56-139
TOTAL XYLENES	20.0	20.0	100%	19.3	97%	-4%	56-141
p-BFB			112%		107%		61-139

* Quality control established by Anametrix, 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	Anametrix I.D.	: MS2711Z1
Matrix	: WATER	Analyst	: ED
Date Sampled	: N/A	Supervisor	: G
Date Extracted	: 09/27/93	Date Released	: 09/30/93
Date Analyzed	: 09/28/93	Instrument I.D.	: HP23

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	860	69%	970	78%	12%	47-130
SURROGATE			63%		81%		30-130

*Quality control established by Anametrix, Inc.