



June 9, 1995

Juliet Shin
Alameda Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Second Quarter 1995**
Shell Service Station
WIC #204-5510-0600
4255 MacArthur Blvd.
Oakland, California
WA Job #81-0757-205

Dear Ms. Shin:

This status report satisfies the quarterly reporting requirements prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 2652.d.

Second Quarter 1995 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured depths to ground water and collected ground water samples from the site wells (Figures 1 and 2). The BTS report describing these activities is included as Attachment A.
- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 1 and 2, respectively) and prepared a ground water elevation contour, and benzene concentrations in ground water map (Figure 2).

Discussion of Quarterly Monitoring Results

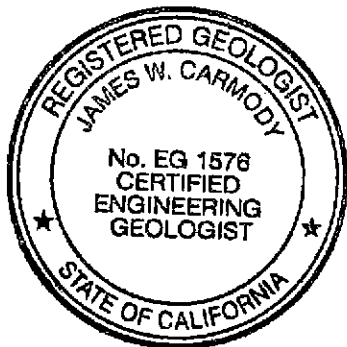
Ground water elevations in April 1995 decreased from 0.26 to 2.02 ft in wells MW-2 through MW-4. Ground water flowed westward, as in the previous quarter; hydrocarbon concentrations remained somewhat stable. However, about 15 ml of separate phase hydrocarbons were removed from well MW-3. A total of 665 ml of separate phase hydrocarbons have been removed from well MW-3 since the 3rd quarter of 1994.

Anticipated Third Quarter 1995 Activities:

WA will submit a report presenting the results of the second quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and a ground water elevation contour map.

Please call if you have any questions.

Sincerely,
Weiss Associates



Grady S. Glasser
Technical Assistant



James W. Carmody, C.E.G.
Senior Project Hydrogeologist

Attachments: A - Ground Water Monitoring Report and Analytic Report

cc: Dan Kirk, Shell Oil Company, P.O. Box 4023, Concord, CA 94524
Lester Feldman, Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Suite 500, Oakland, CA 94612

GSG/JWC:eac
I:\SHELL\10757\Q6\95Q2\95Q2R.DOC

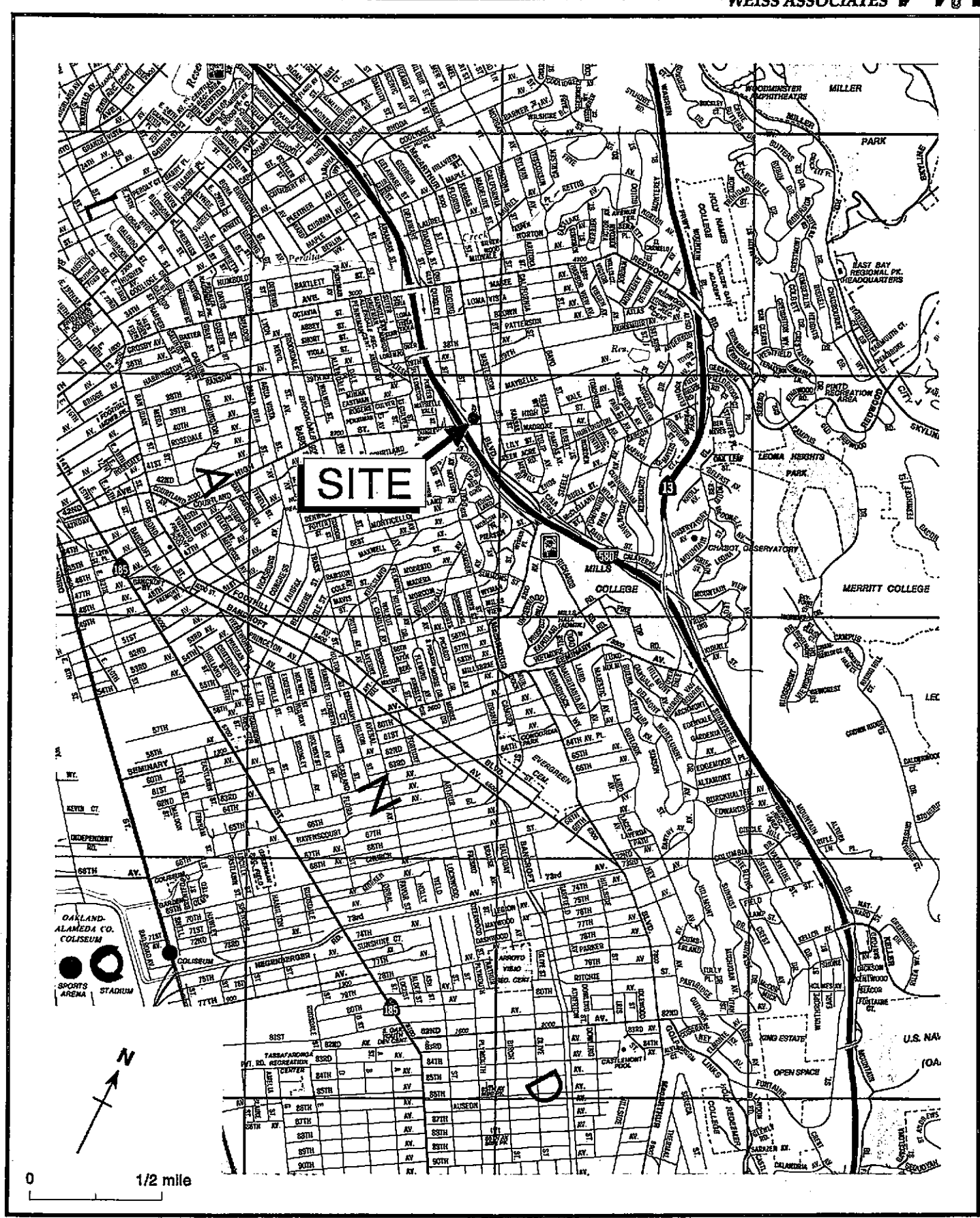


Figure 1. Site Location Map - Shell Service Station WIC# 204-5510-0600, 4255 MacArthur Boulevard, Oakland, California

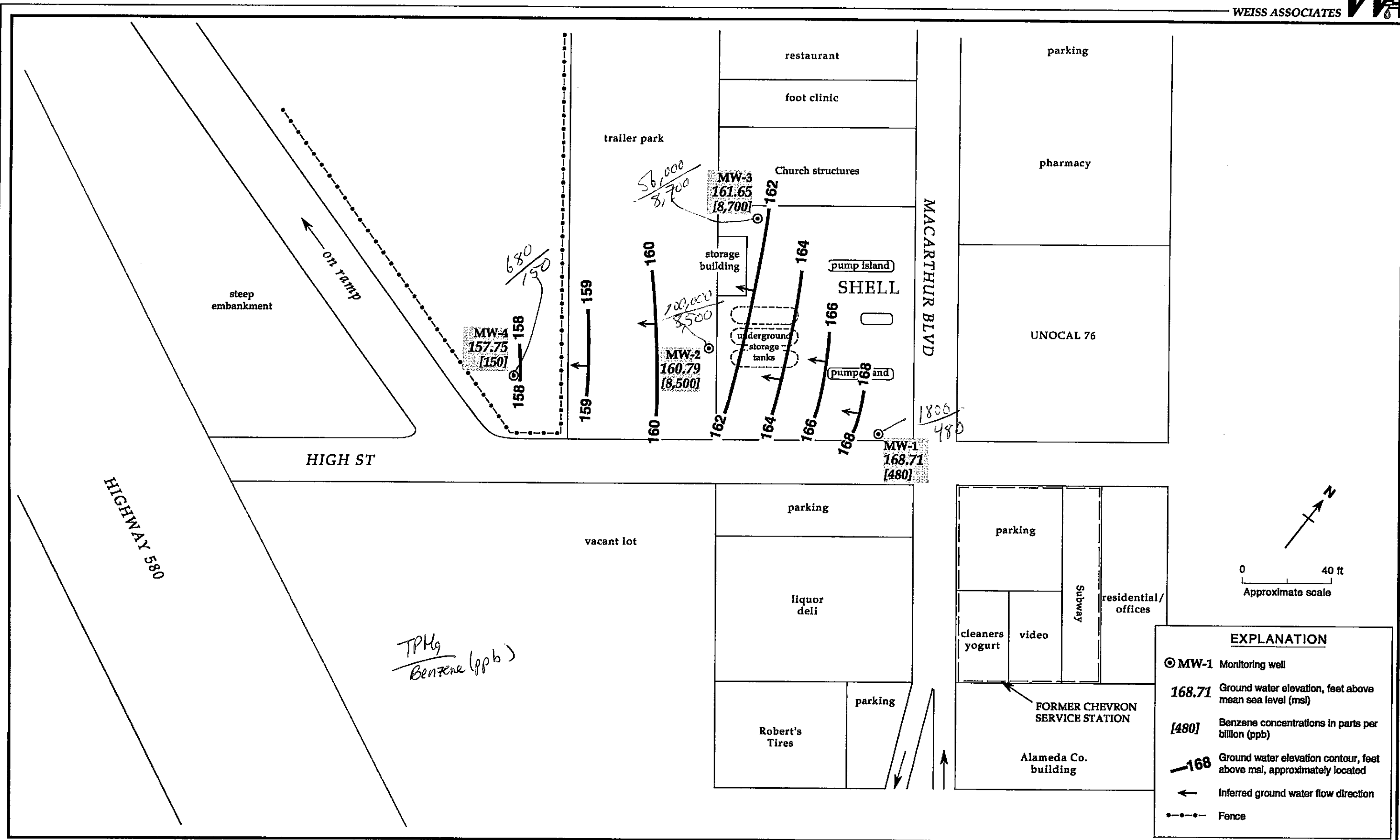


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - April 12, 1995 - Shell Service Station WIC #204-5510-0600, 4255 MacArthur Boulevard, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5510-0600, 4255 MacArthur Blvd., Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Separate-phase Hydrocarbons	Ground Water Elevation (ft above msl)
MW-1	11/17/93	175.79	8.59	---	167.20
	01/20/94		8.22	---	167.57
	04/25/94		7.63	---	168.16
	07/07/94		8.31	---	167.48
	10/27/94		8.84	---	166.95
	11/17/94		7.60	---	168.19
	11/28/94		7.56	---	168.23
	01/13/95		7.11	---	168.68
	04/12/95		7.08	---	168.71
MW-2	11/17/93	170.91	12.31	---	158.60
	01/20/94		11.48	---	159.43
	04/25/94		10.84	---	160.07
	07/07/94		11.89	---	159.02
	10/27/94		12.89	---	158.02
	11/17/94		9.11	---	161.80
	11/28/94		9.22	---	161.69
	01/13/95		8.10	---	162.81
	04/12/95		10.12	---	160.79
MW-3	11/17/93	174.61	15.40	---	159.21
	01/20/94		14.61	---	160.00
	04/25/94		13.12	---	161.49
	07/07/94		14.54	0.02	160.07
	10/27/94		15.62	0.05	159.03
	11/17/94		13.83	---	160.78
	11/28/94		14.02	---	160.59
	01/13/95		12.13	---	162.48
	04/12/95		12.96	---	161.65
MW-4	11/17/94	164.06	6.62	---	157.44
	11/28/94		6.11	---	157.95
	01/13/95		6.05	---	158.01
	04/12/95		6.31	---	157.75

Table 2. Analytic Results for Ground Water, Shell Service Station WIC #204-5510-0600, 4255 MacArthur Blvd., Oakland, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	parts per billion (µg/L)			
				B	E	T	X
MW-1	11/17/93	8.59	410	21	7.9	11	47
	01/20/94	8.22	1,200	180	48	19	47
	04/25/94	7.63	3,100	610	130	< 10	27
	07/07/94	8.31	2,400	1,000	250	10	20
	10/27/94	8.84	2,200	500	72	3.1	1.8
	01/13/95	7.11	570	75	6.7	2.5	11
	04/12/95	7.08	1,800	480	79	< 5.0	< 5.0
MW-2	11/17/93	12.31	31,000	9,400	1,000	4,600	3,900
	01/20/94	11.48	40,000	6,900	780	5,600	4,100
	01/20/94 ^{dup}	11.48	41,000	7,200	900	6,200	4,800
	04/25/94	10.84	60,000	9,300	1,400	6,100	6,200
	07/07/94	11.89	280,000 ^a	40,000	8,100	26,000	32,000
	07/07/94 ^{dup}	11.89	53,000	13,000	2,000	6,600	8,400
	10/27/94	12.89	130,000	14,000	2,400	12,000	13,000
	10/27/94 ^{dup}	12.89	390,000	8,800	1,700	7,000	11,000
	01/13/95	8.10	75,000	5,900	3,100	12,000	17,000
	04/12/95	10.12	100,000	8,500	2,400	11,000	12,000
04/12/95 ^{dup}	10.12	80,000	4,200	2,500	9,300	12,000	
MW-3	11/17/93	15.40	18,000	5,400	720	660	2,200
	01/20/94	14.61	55,000	13,000	2,200	2,600	6,500
	04/25/94	13.12	96,000	11,000	3,100	1,600	9,900
	04/25/94 ^{dup}	13.12	78,000	12,000	2,600	1,900	7,300
	07/07/94 ^{SPH}	14.54	---	---	---	---	---
	10/27/94 ^{SPH}	15.62	---	---	---	---	---
	01/13/95	12.13	180,000	3,200	1,700	2,700	5,200
	01/13/95 ^{dup}	12.13	23,000	4,000	960	690	3,000
	04/12/95	12.96	56,000	8,700	2,100	1,500	6,300
	MW-4	11/28/94	6.11	2,900	200	76	17
01/13/95		6.05	1,900	130	13	5.6	40
04/14/95		6.31	680	150	10	< 2.0	13

— Table 2 continues on next page —

Table 2. Analytic Results for Ground Water, Shell Service Station WIC #204-2004-020, 301 North Hartz Avenue Danville, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	parts per billion (µg/L)			
				B	E	T	X
Trip	01/20/94		<50	<0.5	<0.5	<0.5	<0.5
Blank	04/25/94		<50	<0.5	<0.5	<0.5	<0.5
	07/07/94		<50	<0.5	<0.5	<0.5	<0.5
	10/27/94		<50	<0.5	<0.5	<0.5	<0.5
	01/13/95		<50	<0.5	<0.5	<0.5	<0.5
	04/12/95		<50	<0.5	<0.5	<0.5	0.89
DTSC MCLs		NE	1	680	100 ^b	1,750	

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015
 TPH-D = Total petroleum hydrocarbons as diesel by Modified EPA Method 8015
 B = Benzene by EPA Method 8020
 E = Ethylbenzene by EPA Method 8020
 T = Toluene by EPA Method 8020
 X = Xylenes by EPA Method 8020
 SPH = Separate-phase hydrocarbons present, well not sampled
 NE = Not established
 DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
 --- = Not analyzed
 <n = Not detected at detection limits of n ppb
 dup = Duplicate sample

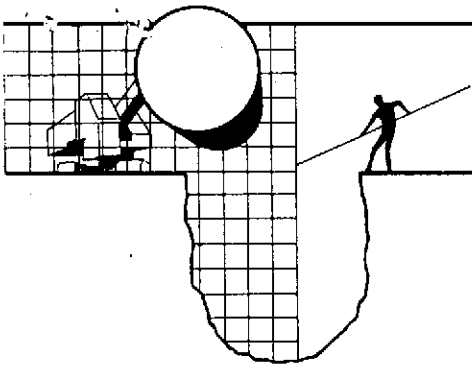
Notes:

a = Ground water surface had a sheen when sampled.
 b = DTSC recommended action level; MCL not established



ATTACHMENT A

GROUND WATER MONITORING REPORT AND ANALYTIC REPORT



BLAINE TECH SERVICES INC.

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

May 3, 1995

Shell Oil Company
P.O. Box 4023
Concord, CA 94524

Attn: Daniel Kirk

SITE:
Shell WIC #204-5510-0600
4255 MacArthur Blvd.
Oakland, California

QUARTER:
2nd quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950412-H-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 removed 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 Sequoia Analytical Laboratory in Redwood City, California. Sequoia Analytical Laboratory is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1210.

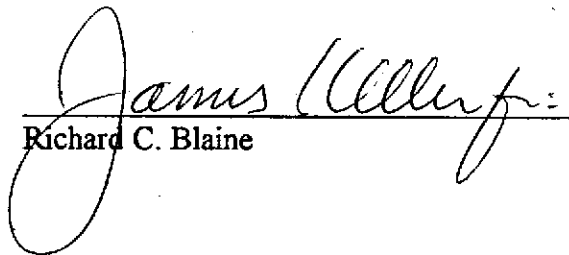
Objective Information Collection

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/lp

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

cc: Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608-2411
ATTN: Grady Glasser

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)
MW-1	4/12/95	TOC	-	NONE	-	-	7.08	24.32
MW-2 *	4/12/95	TOC	SHEEN	-	-	-	10.12	19.66
MW-3	4/12/95	TOC	SHEEN	-	-	15	12.96	21.94
MW-4	4/12/95	TOC	-	NONE	-	-	6.31	30.31

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



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 950412-41

Date: 4/12/95
Page 1 of 1

Site Address: 4255 MacArthur Blvd, Oakland

WICH: 204-5510-0600

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

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

Consultant Contact: Jim Keller
Phone No.: (408) 945-5535
Fax #: 243-8773

Comments:

Sampled by: TNH

Printed Name: TROY N. HORNER

Analysis Required

LAB: 950412

CHECK ONE (1) BOX ONLY	CT/DI	TURN AROUND TIME
Quarterly 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"/> (Norm)
Water Classify/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6452	
Water Rem. or Sys. O & M <input type="checkbox"/>	6453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

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	Asbestos	Container Size	Preparation Used	Composite Y/N

9504948
MATERIAL DESCRIPTION

SAMPLE CONDITION/ COMMENTS

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	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	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
MW-1	4/12			X		3						X						AIC	
MW-2	4/12			X		3						X						2	
MW-3	4/12			X		3						X						3	
DUP	4/12			X		3						X						A +	
TB	4/12			X		2						X						5 A.B	

Relinquished by (signature): <u>Troy N. Horner</u>	Printed Name: <u>TROY N. HORNER</u>	Date: <u>4/13/95</u>	Received (signature): <u>William Summers Jr.</u>	Printed Name: <u>William Summers Jr.</u>	Date: <u>4/13/95</u>
Relinquished by (signature): <u>William Summers Jr.</u>	Printed Name: <u>William Summers Jr.</u>	Date: <u>4/13/95</u>	Received (signature): <u>Troy N. Horner</u>	Printed Name: <u>Troy N. Horner</u>	Date: <u>4/13/95</u>
Relinquished by (signature): <u>Troy N. Horner</u>	Printed Name: <u>Troy N. Horner</u>	Date: <u>4/13/95</u>	Received (signature): <u>William Summers Jr.</u>	Printed Name: <u>William Summers Jr.</u>	Date: <u>4/13/95</u>



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell, Oakland, 950412-H1

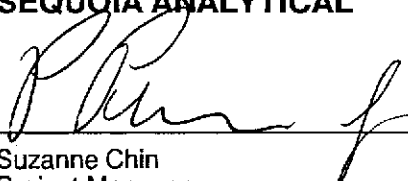
Enclosed are the results from samples received at Sequoia Analytical on April 13, 1995.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9504948 -01	LIQUID, MW-1	04/12/95	TPHGBW Purgeable TPH/BTEX
9504948 -02	LIQUID, MW-2	04/12/95	TPHGBW Purgeable TPH/BTEX
9504948 -03	LIQUID, MW-3	04/12/95	TPHGBW Purgeable TPH/BTEX
9504948 -04	LIQUID, DUP	04/12/95	TPHGBW Purgeable TPH/BTEX
9504948 -05	LIQUID, TB	04/12/95	TPHGBW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL



Suzanne Chin
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, Oakland, 950412-H1 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9504948-01	Sampled: 04/12/95 Received: 04/13/95 Analyzed: 04/25/95 Reported: 04/27/95
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QC Batch Number: GC042495BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	500	1800
Benzene	5.0	480
Toluene	5.0	N.D.
Ethyl Benzene	5.0	79
Xylenes (Total)	5.0	N.D.
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
		79

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell, Oakland, 950412-H1 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9504948-02	Sampled: 04/12/95 Received: 04/13/95 Analyzed: 04/22/95 Reported: 04/27/95
Attention: Jim Keller		

QC Batch Number: GC042195BTEX03B
Instrument ID: GCHP03

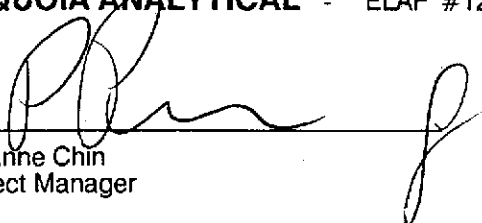
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	20000	100000
Benzene	200	8500
Toluene	200	11000
Ethyl Benzene	200	2400
Xylenes (Total)	200	12000
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	97

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Proj. ID: Shell, Oakland, 950412-H1 Sample Descript: MW-3 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9504948-03	Sampled: 04/12/95 Received: 04/13/95 Analyzed: 04/22/95 Reported: 04/27/95
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QC Batch Number: GC042195BTEX03B
Instrument ID: GCHP03

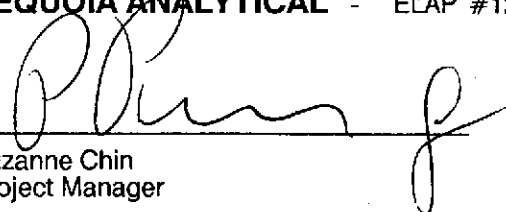
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	10000	56000
Benzene	100	8700
Toluene	100	1500
Ethyl Benzene	100	2100
Xylenes (Total)	100	6300
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70	130
		89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell, Oakland, 950412-H1 Sample Descript: DUP Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9504948-04	Sampled: 04/12/95 Received: 04/13/95 Analyzed: 04/22/95 Reported: 04/27/95
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QC Batch Number: GC042195BTEX03B
Instrument ID: GCHP03

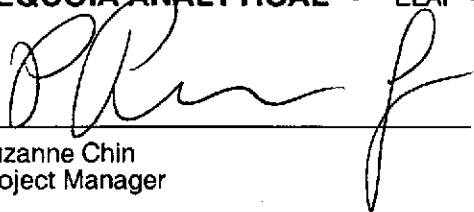
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50000	80000
Benzene	500	4200
Toluene	500	9300
Ethyl Benzene	500	2500
Xylenes (Total)	500	12000
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Technical Services 985 Timothy Drive San Jose, CA 95133	Client Proj. ID: Shell, Oakland, 950412-H1 Sample Descript: TB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9504948-05	Sampled: 04/12/95 Received: 04/13/95 Analyzed: 04/25/95 Reported: 04/27/95
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QC Batch Number: GC042595BTEX17A
Instrument ID: GCHP17

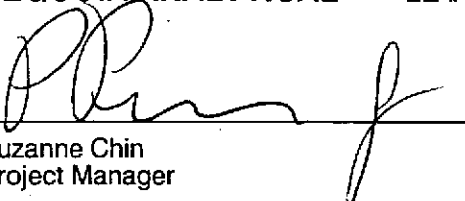
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	0.89
Chromatogram Pattern:		

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	106

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Tech Services, Inc.
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Client Project ID: Shell, Oakland, 950412-H1
Matrix: Liquid

Work Order #: 9504948 -01

Reported: Apr 28, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC042495BTEX17A	GC042495BTEX17A	GC042495BTEX17A	GC042495BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950493302	950493302	950493302	950493302
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/24/95	4/24/95	4/24/95	4/24/95
Analyzed Date:	4/24/95	4/24/95	4/24/95	4/24/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.9	8.8	8.6	26
MS % Recovery:	89	88	86	87
Dup. Result:	9.4	9.4	9.4	28
MSD % Recov.:	94	94	94	93
RPD:	5.5	6.6	8.9	7.4
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	71-133	72-128	72-130	71-120
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Suzanne Chin
Suzanne Chin
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9504948.BLA <1>





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Shell, Oakland, 950412-H1 Matrix: Liquid	Work Order #: 9504948-02-04	Reported: Apr 28, 1995
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC042195BTEX03A	GC042195BTEX03A	GC042195BTEX03A	GC042195BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	950474403	950474403	950474403	950474403
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/21/95	4/21/95	4/21/95	4/21/95
Analyzed Date:	4/21/95	4/21/95	4/21/95	4/21/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.2	8.1	8.1	24
MS % Recovery:	82	81	81	80
Dup. Result:	9.0	8.2	7.8	25
MSD % Recov.:	90	82	78	83
RPD:	9.3	1.2	3.8	4.1
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	71-133	72-128	72-130	71-120
Control Limits				

SEQUOIA ANALYTICAL

Suzanne Chin
Suzanne Chin
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS= Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9504948.BLA <2>





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Shell, Oakland, 950412-H1 Matrix: Liquid Work Order #: 9504948-05	Reported: Apr 28, 1995
--	--	------------------------

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC042595BTEX17A	GC042595BTEX17A	GC042595BTEX17A	GC042595BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950485706	950485706	950485706	950485706
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/25/95	4/25/95	4/25/95	4/25/95
Analyzed Date:	4/25/95	4/25/95	4/25/95	4/25/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.9	10	10	31
MS % Recovery:	99	100	100	103
Dup. Result:	10.0	10.0	10.0	31
MSD % Recov.:	100	100	100	103
RPD:	1.0	0.0	0.0	0.0
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	71-133	72-128	72-130	71-120
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Suzanne Chin
Suzanne Chin
Project Manager

** MS= Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9504948.BLA <3>





SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No: 950412-HH

Date: 4-14
Page 2 of 2

Site Address: 4255 MacArthur Blvd., Oakland

WIC#: 204-5510-0600

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

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

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

Comments: 9504A81

Sampled by: AA
Printed Name: GRANT MOHR

Analysis Required

LAB: SEQUOIA

CHECK ONE (1) BOX ONLY	CT/DT	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 Classfy/Disposal <input type="checkbox"/> 6442		15 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/> 6443		Other <input type="checkbox"/>
Soil/Air Rem. of Sys. O & M <input type="checkbox"/> 6462		
Water Rem. of Sys. O & M <input type="checkbox"/> 6463		
Other <input type="checkbox"/>		

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

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	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	Asbestos	Container Size	Preparation Used	Composite Y/N
MW4	01/4/14			X		3						X				

MATERIAL DESCRIPTION SAMPLE CONDITION/ COMMENTS

Relinquished By (signature): <u>[Signature]</u>	Printed Name: GRANT MOHR	Date: 4/17 Time: 10:10	Received (signature): <u>[Signature]</u>	Printed Name: L. OLMSCHIED	Date: 4/17 Time: 10:10
Relinquished By (signature): <u>[Signature]</u>	Printed Name: L. OLMSCHIED	Date: 4/17 Time: 11:15	Received (signature): <u>[Signature]</u>	Printed Name:	Date: Time:
Relinquished By (signature): <u>[Signature]</u>	Printed Name:	Date: Time:	Received (signature): <u>[Signature]</u>	Printed Name: M. YONG	Date: 4/17/95 Time: 11:16

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



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133
Attention: Jim Keller

Project: Shell, Oakland, 950412-H1

Enclosed are the results from samples received at Sequoia Analytical on April 17, 1995.
The requested analyses are listed below:

<u>SAMPLE #</u>	<u>SAMPLE DESCRIPTION</u>	<u>DATE COLLECTED</u>	<u>TEST METHOD</u>
9504A81 -01	LIQUID, MW4	04/14/95	TPHGBW Purgeable TPH/BTEX

Please contact me if you have any questions. In the meantime, thank you for the opportunity to work with you on this project.

Very truly yours,

SEQUOIA ANALYTICAL

Suzanne Chin
Project Manager





Blaine Technical Services
985 Timothy Drive
San Jose, CA 95133

Attention: Jim Keller

Client Proj. ID: Shell, Oakland, 950412-H1
Sample Descript: MW4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9504A81-01

Sampled: 04/14/95
Received: 04/17/95

Analyzed: 04/25/95
Reported: 04/27/95

QC Batch Number: GC042595BTEX03A
Instrument ID: GCHP03

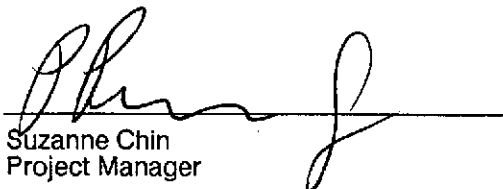
Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	200	680
Benzene	2.0	150
Toluene	2.0	N.D.
Ethyl Benzene	2.0	10
Xylenes (Total)	2.0	13
Chromatogram Pattern:		Gas

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Suzanne Chin
Project Manager





Blaine Tech Services, Inc. 985 Timothy Drive San Jose, CA 95133 Attention: Jim Keller	Client Project ID: Shell, Oakland, 950412-H1 Matrix: Liquid Work Order #: 9504A81 -01	Reported: May 3, 1995
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC042595BTEX03A	GC042595BTEX03A	GC042595BTEX03A	GC042595BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950485706	950485706	950485706	950485706
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	4/25/95	4/25/95	4/25/95	4/25/95
Analyzed Date:	4/25/95	4/25/95	4/25/95	4/25/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	8.5	8.6	8.4	25
MS % Recovery:	85	86	84	83
Dup. Result:	8.2	8.1	7.9	24
MSD % Recov.:	82	81	79	80
RPD:	3.6	6.0	6.1	4.1
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-

MS/MSD				
LCS	71-133	72-128	72-130	71-120
Control Limits				

SEQUOIA ANALYTICAL

Peggy Penner
Peggy Penner
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9504A81.BLA <1>

