Weiss Associates *Environmental and Geologic Services*

5500 Shellmound Street, Emeryville, CA 94608-2411 *Fax: 510-547-5043* *Phone: **510-450-6000***

October 27, 1995

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

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

Dear Ms. Logan:

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

Third Quarter 1995 Activities:

SEPARATE-PHASE HYDROCARBON REMOVAL SUMMARY	
Separate-Phase Hydrocarbons Removed This Past Quarter (lbs)	***Cumulative Pounds Removed***
6.67	6.71

- Blaine Tech Services, Inc. (BTS) of San Jose, California purged 6.67 lbs. of separate-phase hydrocarbons from wells MW-2 and MW-3 (Table 1) during quarterly ground water monitoring activities. Since the Third Quarter 1994, about 6.71 lbs. of separate-phase hydrocarbons have been removed from the wells.

- BTS 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.

- Due to the presence of separate-phase hydrocarbons, BTS installed a skimmer in well MW-2.

- Weiss Associates (WA) compiled the ground water elevation and analytic data (Tables 2 and 3, 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 July 1995 decreased from 0.99 to 1.27 ft in wells MW-2 through MW-4. Ground water flowed southwestward, as in the previous quarter; hydrocarbon concentrations remained somewhat stable. However, about 6.67 lbs of separate-phase hydrocarbons were removed from wells MW-2 and MW-3. A total of 6.71 lbs of separate-phase hydrocarbons have been removed from wells MW-2 and MW-3 since the 3rd quarter of 1994.

Anticipated Fourth Quarter 1995 Activities:

- BTS will continue to remove separate-phase hydrocarbons from the wells as needed.

- WA will submit a report presenting the results of the fourth quarter 1995 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results, a ground water elevation contour map, a benzene concentration in ground water map and a table presenting separate-phase removal data.

Please call if you have any questions.

Sincerely,
Weiss Associates

Grady S. Glasser
Technical Assistant

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

Attachments: A - Ground Water Monitoring Report and Analytic Report

cc: R. Jeff Granberry, Shell Oil Products Company, P.O. Box 4023, Concord, CA 94524

GSG/JWC:all
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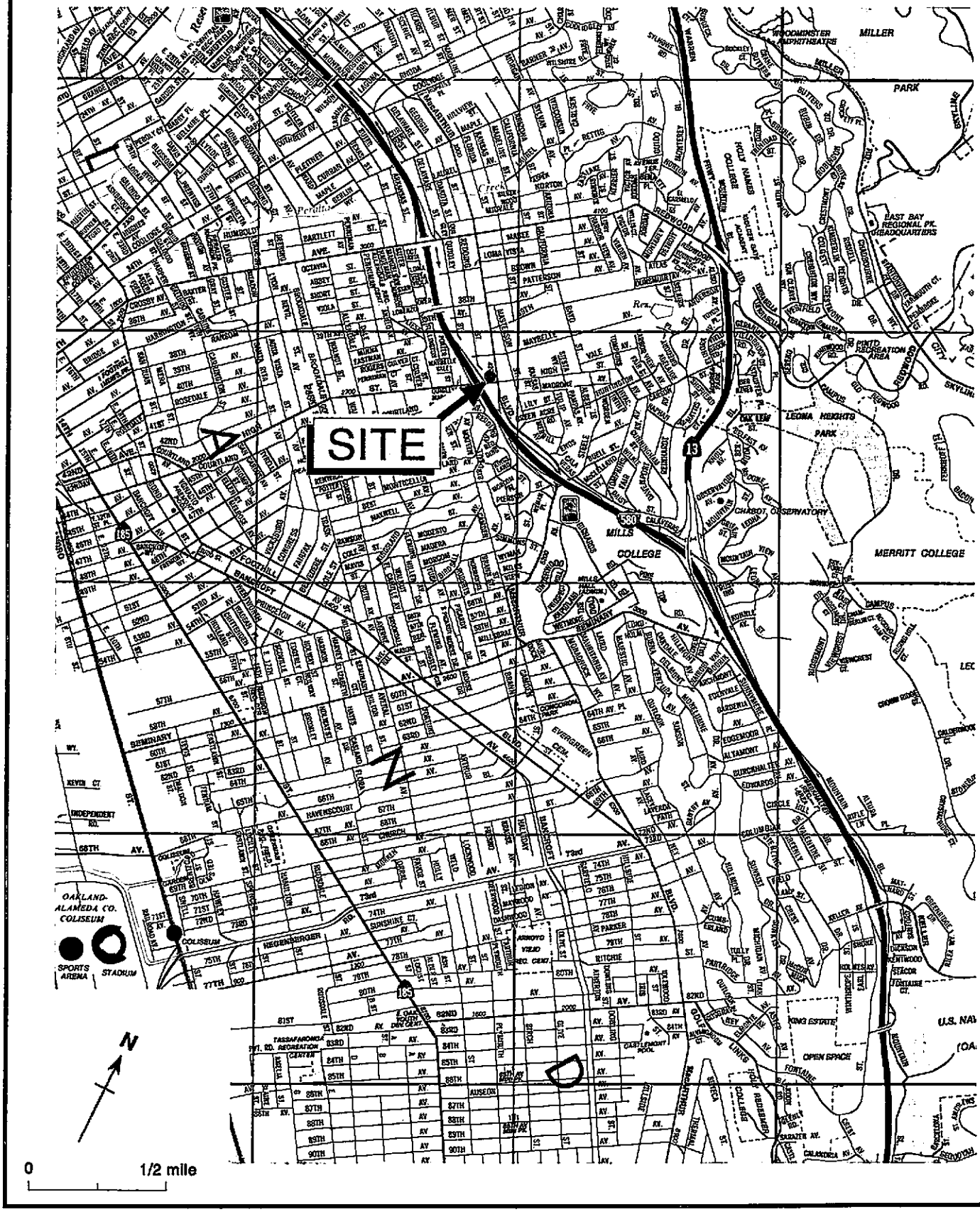

Figure 1. Site Location Map - Shell Service Station WIC# 204-5510-0600, 4255 MacArthur Boulevard, Oakland, California

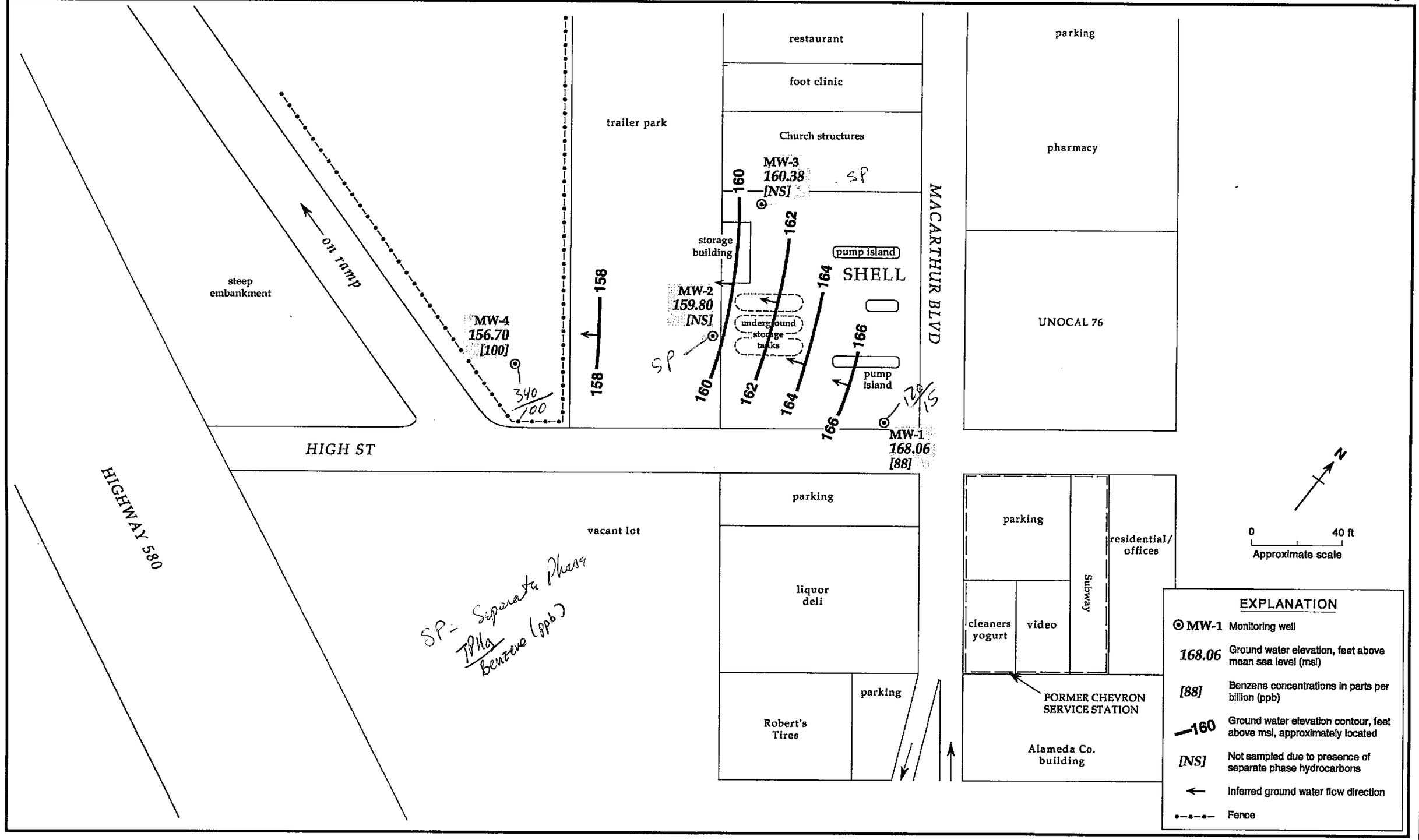

Figure 2. Montoring Well Locations, Ground Water Elevation Contours, and Benzene Concentrations in Ground Water - July 25, 1995 - Shell Service Station WIC #204-5510-0600, 4255 MacArthur Boulevard, Oakland, California

Table 1. Separate-Phase Hydrocarbon Removal - Shell Service Station WIC #204-5510-0600, 4255 MacArthur Blvd., Oakland, California

Well ID	Date	Separate-Phase Hydrocarbon Thickness (Ft)	Mass of Separate-Phase Hydrocarbons Removed (lbs)[a]	Cumulative Mass of Hydrocarbons Removed (lbs)
MW-2	11/17/93	0.0	0.0	0.0
	01/20/94	0.0	0.0	0.0
	04/25/94	0.0	0.0	0.0
	07/07/94	0.0	0.0	0.0
	01/13/95	0.0	0.0	0.0
	04/12/95	0.0	0.0	0.0
	08/10/95	**0.52**	**5.98**	**5.98**
MW-3	11/17/93	0.0	0.0	0.0
	01/20/94	0.0	0.0	0.0
	04/25/94	0.0	0.0	0.0
	07/07/94	0.0	0.0	0.0
	01/13/95	---	0.02	0.02
	04/12/95	---	0.02	0.04
	08/10/95	**0.06**	**0.69**	**0.73**
TOTAL HYDROCARBONS REMOVED				**6.71**

Notes:

--- = not measured

a = Mass of SPH in 10" boring and 4" well estimated by following factor: 1 ft of SPH = 11.5 lbs of SPH.

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Table 2. 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
	07/25/95		**7.73**	**---**	**168.06**
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
	07/25/95		**11.53**	**0.52**	**159.80**
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
	07/25/95		**14.28**	**0.06**	**160.38**
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
	07/25/95		**7.36**	**---**	**156.70**

Notes:

a = When separate-phase hydrocarbons are present, ground water elevation corrected by adding 80% of the separate-phase hydrocarbon thickness measured in the well

--- = Data not available

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Table 3. 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	B	E	T	X	POG
			← parts per billion (µg/L) →					
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	---
	07/25/95	**7.73**	**120**	**15**	**2.1**	**1.1**	**2.9**	**---**
	07/25/95[dup]	**7.73**	**300**	**88**	**11**	**2.4**	**6.5**	**---**
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	---
	08/10/95	**11.33**	**—**	**—**	**—**	**—**	**—**	**34,000**
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	---

Table 3. Analytic Results for Ground Water, Shell Service Station WIC #204-5510-0600, 4255 MacArthur Boulevard, Oakland, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	POG
			← parts per billion (µg/L) →					
MW-4	11/28/94	6.11	2,900	200	76	17	260	---
	01/13/95	6.05	1,900	130	13	5.6	40	---
	04/14/95	6.31	680	150	10	<2.0	13	---
	07/25/95	**7.36**	**340**	**100**	**8.8**	**0.8**	**3.0**	**---**
Trip Blank	01/20/94		<50	<0.5	<0.5	<0.5	<0.5	---
	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	---
	07/25/95		**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
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
POG = Non-polar Petroleum oil and grease by APHA Method 5520 B/F
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

August 28, 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:
3rd quarter of 1995

QUARTERLY GROUNDWATER SAMPLING REPORT 950725-K-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 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 National Environmental Testing, Inc. in Santa Rosa, California. NET is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #1386.

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 *	7/25/95	TOC	ODOR	NONE	–	--	7.73	22.92
MW-2	7/25/95	TOC	FREE PRODUCT	11.01	0.52	--	11.53	--
MW-3	7/25/95	TOC	FREE PRODUCT	14.22	0.06	--	14.28	--
MW-4	7/25/95	TOC	ODOR	NONE	--	--	7.36	30.02

* Sample DUP was a duplicate sample taken from well MW-1.

#7788

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 950725-K1

Date: 7/25
Page 1 of 1

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:

Sampled by: KCB

Printed Name: Keith Brown

LAB: Nct

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	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW1	7/25			W		3						X								
MW4												X								
DUP												X								
TB						2						X								

CUSTODY SEALED
@ 7-26-95
Seal Intact
OK

CHECK ONE (1) BOX ONLY — Ct/DT — TURN AROUND TIME

	Ct/DT	
Quarterly Monitoring	X 6441	24 hours ☐
Site Investigation	☐ 6441	48 hours ☐
Soil Cleanup/Disposal	☐ 6442	15 days XX (Normal)
Water Cleanup/Disposal	☐ 6443	Other ☐ ____
Soil/Air Rem. or Sys. O & M	☐ 6452	NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.
Water Rem. or Sys. O & M	☐ 6453	
Other	☐	

Relinquished By (signature):	Printed Name:	Date:	Received (signature):	Printed Name:	Date:
	Keith Brown	7-26-95 Time: 1330		Lloyd Freeman	7-26-95 Time: 1330
Relinquished By (signature):	Printed Name:	Date: 7/26/95 Time: 1830	Received (signature):	Printed Name:	Date: 7-27-95 Time: 07:15
	FLOYD FREEMAN			TIM GREENE	
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

VIA: NCS

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 08/04/1995
NET Client Acct. No: 1821
NET Job No: 95.02955
Received: 07/27/1995

Client Reference Information

Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Jennifer L. Roseberry
Project Manager

Enclosure(s)

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

SAMPLE DESCRIPTION: MW1
Date Taken: 07/25/1995
Time Taken:
NET Sample No: 247100

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						08/02/1995	3054
Purgeable TPH	120		50	ug/L	5030/M8015		08/02/1995	3054
Carbon Range: C6 to C12	--						08/02/1995	3054
METHOD 8020 (GC, Liquid)	--						08/02/1995	3054
Benzene	15		0.5	ug/L	8020		08/02/1995	3054
Toluene	1.1		0.5	ug/L	8020		08/02/1995	3054
Ethylbenzene	2.1		0.5	ug/L	8020		08/02/1995	3054
Xylenes (Total)	2.9		0.5	ug/L	8020		08/02/1995	3054
SURROGATE RESULTS	--						08/02/1995	3054
Bromofluorobenzene (SURR)	109			% Rec.	8020		08/02/1995	3054

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

SAMPLE DESCRIPTION: MW4
Date Taken: 07/25/1995
Time Taken:
NET Sample No: 247101

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						08/02/1995	3054
Purgeable TPH	340		50	ug/L	5030/M8015		08/02/1995	3054
Carbon Range: C6 to C12	--						08/02/1995	3054
METHOD 8020 (GC, Liquid)	--						08/02/1995	3054
Benzene	100	FC	5	ug/L	8020		08/02/1995	3054
Toluene	0.8		0.5	ug/L	8020		08/02/1995	3054
Ethylbenzene	8.8		0.5	ug/L	8020		08/02/1995	3054
Xylenes (Total)	3.0		0.5	ug/L	8020		08/02/1995	3054
SURROGATE RESULTS	--						08/02/1995	3054
Bromofluorobenzene (SURR)	108			% Rec.	8020		08/02/1995	3054

FC : Compound quantitated at a 10X dilution factor.

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

SAMPLE DESCRIPTION: DUP
Date Taken: 07/25/1995
Time Taken:
NET Sample No: 247102

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						08/02/1995	3054
Purgeable TPH	300		50	ug/L	5030/M8015		08/02/1995	3054
Carbon Range: C6 to C12	--						08/02/1995	3054
METHOD 8020 (GC, Liquid)	--						08/02/1995	3054
Benzene	88	FC	5	ug/L	8020		08/02/1995	3054
Toluene	2.4		0.5	ug/L	8020		08/02/1995	3054
Ethylbenzene	11		0.5	ug/L	8020		08/02/1995	3054
Xylenes (Total)	6.5		0.5	ug/L	8020		08/02/1995	3054
SURROGATE RESULTS	--						08/02/1995	3054
Bromofluorobenzene (SURR)	107			% Rec.	8020		08/02/1995	3054

FC : Compound quantitated at a 10X dilution factor.

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

SAMPLE DESCRIPTION: TB
Date Taken: 07/25/1995
Time Taken:
NET Sample No: 247103

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						08/02/1995	3054
Purgeable TPH	ND		50	ug/L	5030/M8015		08/02/1995	3054
Carbon Range: C6 to C12	--						08/02/1995	3054
METHOD 8020 (GC, Liquid)	--						08/02/1995	3054
Benzene	ND		0.5	ug/L	8020		08/02/1995	3054
Toluene	ND		0.5	ug/L	8020		08/02/1995	3054
Ethylbenzene	ND		0.5	ug/L	8020		08/02/1995	3054
Xylenes (Total)	ND		0.5	ug/L	8020		08/02/1995	3054
SURROGATE RESULTS	--						08/02/1995	3054
Bromofluorobenzene (SURR)	100			% Rec.	8020		08/02/1995	3054

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 5030/8015-M (Shell)							
Purgeable TPH	94.0	0.47	0.50	mg/L	08/02/1995	aal	3054
Benzene	109.6	5.48	5.00	ug/L	08/02/1995	aal	3054
Toluene	106.6	5.33	5.00	ug/L	08/02/1995	aal	3054
Ethylbenzene	105.0	5.25	5.00	ug/L	08/02/1995	aal	3054
Xylenes (Total)	106.7	16.0	15.0	ug/L	08/02/1995	aal	3054
Bromofluorobenzene (SURR)	106.0	106	100	% Rec.	08/02/1995	aal	3054

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	08/02/1995	aal	3054
Benzene	ND	0.5	ug/L	08/02/1995	aal	3054
Toluene	ND	0.5	ug/L	08/02/1995	aal	3054
Ethylbenzene	ND	0.5	ug/L	08/02/1995	aal	3054
Xylenes (Total)	ND	0.5	ug/L	08/02/1995	aal	3054
Bromofluorobenzene (SURR)	96		% Rec.	08/02/1995	aal	3054

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950725-K1

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
METHOD 5030/8015-M (Shell)											247100
Purgeable TPH	108.0	110.0	1.8	0.50	0.12	0.66	0.67	mg/L	08/02/1995	3054	247100
Benzene	98.6	113.8	14.2	7.91	15	22.8	24.0	ug/L	08/02/1995	3054	247100
Toluene	110.3	111.7	1.3	29.1	1.1	33.2	33.6	ug/L	08/02/1995	3054	247100

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

roject: 950725-K1 Log No: 7788
ooler received on: 7-27-95 and checked on 1-27-95 by Tom Greene
(signature)

ere custody papers present?	YES	NO
ere custody papers properly filled out?	YES	NO
ere the custody papers signed?	YES	NO
as sufficient ice used?	YES	NO
id all bottles arrive in good condition (unbroken)?	YES	NO
id bottle labels match COC?	YES	NO *
ere proper bottles used for analysis indicated?	YES	NO
orrect preservatives used?	YES	NO
OA vials checked for headspace bubbles?	YES	NO

Temp 0°

Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:
TB	1 of 2

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis..... YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

* Dup labels not attached by Blaine Tech.

(coolerrec)

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 950810 - D3

Date: 8-10-95
Page 1 of 1

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:

Sampled by: [signature]

Printed Name: Mike Toll

LAB: NET

CHECK ONE (1) BOX ONLY		CT/01
Quarterly Monitoring	X	6441
Site Investigation		6441
Soil Closure/Disposal		6442
Water Closure/Disposal		6443
Soil/Air Rem. or Sys. O & M		6452
Water Rem. or Sys. O & M		6453
Other		

TURN AROUND TIME: 24 hours ☐ 48 hours ☐ 15 days XXX (Normal) ☐ Other ☐ ____

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

Analysis Required

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	TDG 5520		Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-2	8/10			X		2							X							
TB	8/10			X		2						X							NO ANALYSIS REQ	FAX T to JK 8/14/95

	Printed Name	Date	Time	Received (signature)	Printed Name	Date	Time
Relinquished By (signature): [signature]	Mike Toll	8-11-95	953	[signature]	FLOYD FREEMAN	8-11-95	953
Relinquished By (signature): [signature]	FLOYD FREEMAN	8-11-95	1315	Received (signature):	Printed Name:	Date:	Time:
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

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Jim Keller
Blaine Tech Services
985 Timothy Dr.
San Jose, CA 95133

Date: 08/21/1995
NET Client Acct. No: 1821
NET Job No: 95.03215
Received: 08/12/1995

Client Reference Information

Shell 4255 MacArthur Blvd., Oakland, CA./950810-D3

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

Jennifer L. Roseberry
Project Manager

Enclosure(s)

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.03215

Date: 08/21/1995
ELAP Cert: 1386
Page: 2

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950810-D3

SAMPLE DESCRIPTION: MW-2
Date Taken: 08/10/1995
Time Taken:
NET Sample No: 248291

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
Oil & Grease (Total)	57,000		5,000	ug/L	5520B		08/15/1995	350
Oil & Grease (Non-Polar)	34,000		5,000	ug/L	5520B/F		08/15/1995	333

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950810-D3

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
Oil & Grease (Total)	ND	5	mg/L	08/15/1995	shr	350
Oil & Grease (Non-Polar)	ND	5	mg/L	08/15/1995	shr	333

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.03215

Date: 08/21/1995
ELAP Cert: 1386
Page: 4

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950810-D3

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
Oil & Grease (Total)	93.9	96.3	2.5	109.0	ND	102.3	108.2	mg/L	08/15/1995	350	247878
Oil & Grease (Non-Polar)	93.9	96.3	2.5	109.0	ND	102.3	108.2	mg/L	08/15/1995	333	247878

Client Name: Blaine Tech Services
Client Acct: 1821
NET Job No: 95.03215

Date: 08/21/1995
ELAP Cert: 1386
Page: 5

Ref: Shell 4255 MacArthur Blvd., Oakland, CA./950810-D3

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	Duplicate LCS % Recovery	RPD	LCS Amount Found	Duplicate LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch
Oil & Grease (Total)	99.3			118.0		118.8	mg/L	08/15/1995	shr	350
Oil & Grease (Non-Polar)	87.6			104.1		118.8	mg/L	08/15/1995	shr	333

KEY TO ABBREVIATIONS and METHOD REFERENCES

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*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

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Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 950810-03 Log No: 8051
Cooler received on: 8/12/95 and checked on 8/12/95 by
(signature)

Were custody papers present?.....~~YES~~ NO

Were custody papers properly filled out?.....~~YES~~ NO

Were the custody papers signed?.....~~YES~~ NO

Was sufficient ice used?.....~~YES~~ NO Temp.: 0°C

Did all bottles arrive in good condition (unbroken)?.....~~YES~~ NO

Did bottle labels match COC?.....~~YES~~ NO

Were proper bottles used for analysis indicated?.....~~YES~~ NO

Correct preservatives used?.....~~YES~~ NO

VOA vials checked for headspace bubbles?.....~~YES~~ NO
Note which voas (if any) had bubbles:*

Sample descriptor:	Number of vials:

*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #

(coolerrec)