Weiss Associates Environmental and Geologic Services

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

December 8, 1995

Jennifer Eberle
Alameda County Department
of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: **Fourth Quarter 1995**
Shell Service Station
WIC #204-5510-0204
350 Grand Avenue
Oakland, California
WA Job #81-0701-205

Dear Ms. Eberle:

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.

Fourth Quarter 1995 Activities:

- Blaine Tech Services, Inc. (BTS) of San Jose, California measured ground water depths and collected ground water samples from the site wells (Figures 1 and 2). BTS' report describing these activities and the analytic report for the ground water samples are included as Attachment A.

- Weiss Associates (WA) calculated ground water elevations and compiled the analytic data (Tables 1 and 2) and prepared a ground water elevation map and plotted benzene concentrations in ground water (Figure 2).

Anticipated First Quarter 1996 Activities:

- WA will submit a report presenting the results of the first quarter 1996 ground water sampling and ground water depth measurements. The report will include tabulated chemical analytic results and ground water elevations, we will prepare a ground water elevation map and plot benzene concentrations in ground water.

- WA will install at least one offsite ground water monitoring well. However, obtaining encroachment permits and necessary performance bonds has delayed this work. We will notify the county when we will install the well.

Conclusions and Recommendations:

In October 1995, ground water flowed to the south beneath the site. Hydrocarbon concentrations in all monitoring wells remained within historical range.

Please call if you have any questions.

Sincerely,
Weiss Associates

Grady S. Glasser
Technical Assistant

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

REGISTERED GEOLOGIST
JAMES WILLIAM CARMODY
No HG217
CERTIFIED
HYDRO-
GEOLOGIST
STATE OF CALIFORNIA

Attachments: A - BTS Ground Water Monitoring Report

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

GSG/JWC:all
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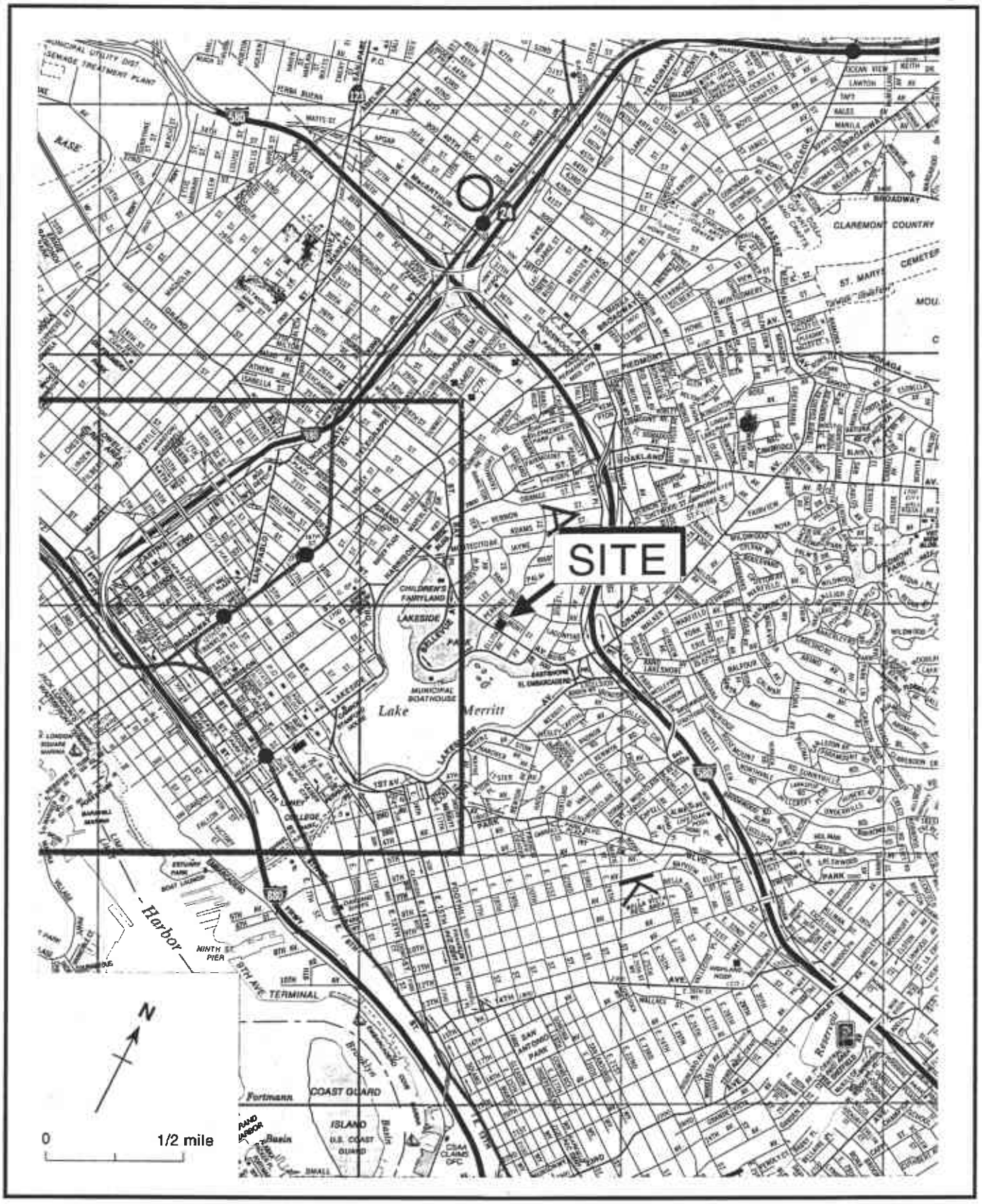
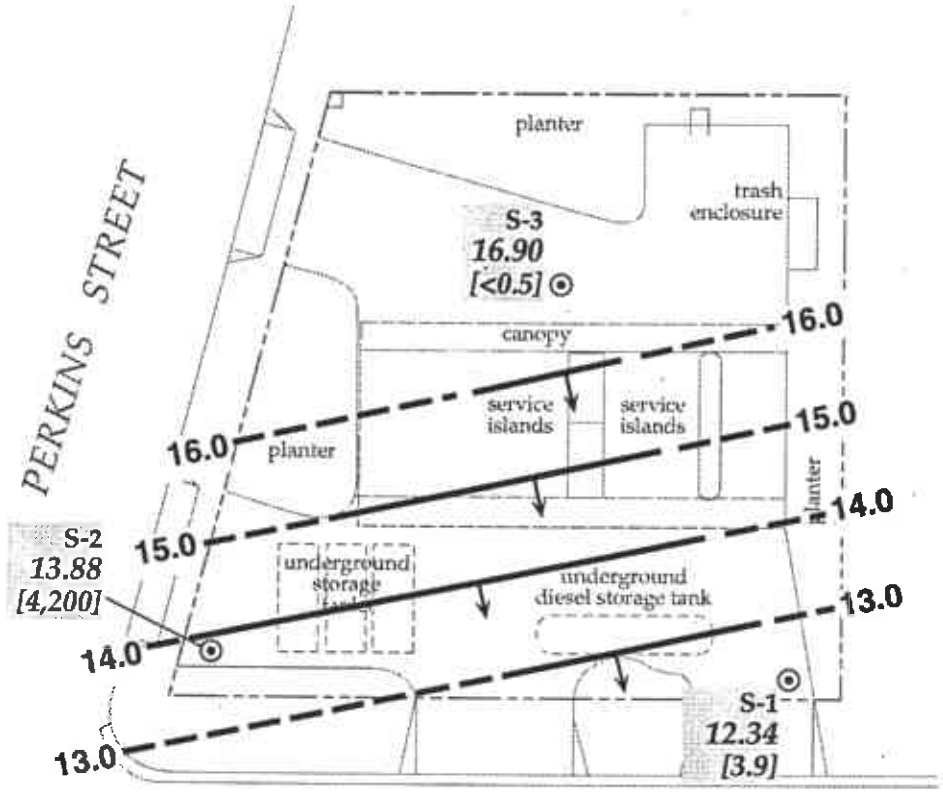
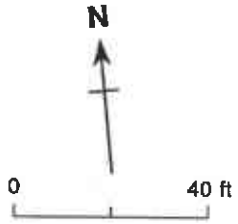


Figure 1. Site Location Map - Shell Service Station WIC #204-5510-0204, 350 Grand Avenue, Oakland, California





EXPLANATION

⊙ S-1	Monitoring well
12.34	Ground water elevation, ft above mean sea level (msl)
[3.9]	Benzene concentrations in parts per billion (ppb)
14.0	Ground water elevation contour, ft above msl, approximately located, dashed where inferred
→	Inferred ground water flow direction

Base map from GeoStrategies Inc.

Figure 2. Monitoring Well Location, Ground Water Elevation, and Benzene Concentrations in Ground Water - Oct. 5, 1995 - Shell Service Station WIC #204-5510-0204, 350 Grand Avenue, Oakland, California

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5510-0204, 350 Grand Avenue, Oakland, California

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Ground Water Elevation (ft above msl)
S-1	01/23/91	20.84	9.73	11.11
	04/25/91		7.37	13.47
	07/19/91		8.92	11.92
	10/09/91		9.62	11.22
	01/23/92		8.94	11.90
	04/27/92		7.06	13.78
	07/10/92		8.31	12.53
	10/06/92		9.55	11.29
	01/06/93		9.86	10.98
	04/26/93		6.30	14.54
	07/20/93		8.78	12.06
	10/18/93		9.20	11.64
	01/07/94		9.53	11.31
	04/11/94		8.50	12.34
	07/14/94		8.45	12.39
	07/19/94		9.07	11.77
	10/06/94		11.68	9.16
	01/04/95		8.51	12.33
	04/12/95		6.66	14.18
	07/07/95		6.95	13.89
	10/05/95		**8.50**	**12.34**
S-2	01/23/91	21.24	10.55	10.69
	04/25/91		8.24	13.00
	07/19/91		9.55	11.69
	10/09/91		10.26	10.98
	01/23/92		9.51	11.73
	04/27/92		7.83	13.41
	07/10/92		8.57	12.67
	10/06/92		9.49	11.75
	01/06/93		8.56	12.68
	04/26/93		6.84	14.40
	07/20/93		8.52	12.72
	10/18/93		9.36	11.88
	01/07/94		8.37	12.87
	04/11/94		6.96	14.28
	07/14/94		7.49	13.75
	07/19/94		8.02	13.22
	10/06/94		11.00	10.24
	01/04/94		8.07	13.17
	04/12/95		6.12	15.12
	07/07/95		6.35	14.89
	10/05/95		**7.36**	**13.88**

Table 1. Ground Water Elevations - Shell Service Station WIC #204-5510-0204, 350 Grand Avenue, Oakland, California (continued)

Well ID	Date	Top-of-Vault Elevation	Depth to Water (ft)	Ground Water Elevation (ft above msl)
S-3	01/23/91	22.70	14.67	8.03
	04/25/91		12.96	9.74
	07/19/91		12.45	10.25
	10/09/91		12.98	9.72
	01/23/92		13.06	9.64
	04/27/92		7.25	15.45
	07/10/92		8.46	14.24
	10/06/92		11.77	10.93
	01/06/93		12.53	10.17
	04/26/93		4.28	18.42
	07/20/93		5.70	17.00
	10/18/93		10.30	12.40
	01/07/94		12.40	10.30
	04/11/94		10.94	11.76
	07/14/94		7.90	14.80
	07/19/94		8.12	14.58
	10/06/94		12.15	10.55
	01/04/95		11.18	11.52
	04/12/95		3.76	18.94
	07/07/95		4.72	17.98
	10/05/95		**5.80**	**16.90**

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-5510-0204, 350 Grand Avenue, Oakland, California

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	E	T	X
			← parts per billion (µg/L) →					
WELLS								
S-1	01/23/91	9.73	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/25/91	7.37	<50	<50	<0.5	<0.5	<0.5	<0.5
	07/19/91	8.92	<50	<50	6.8	<0.5	<0.5	<0.5
	10/09/91	9.62	260[a]	120	10	<0.5	<0.5	<0.5
	01/23/92	8.94	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/27/92	7.06	70[b]	<50	1.2	<0.5	<0.5	<0.5
	07/10/92	8.31	930	<50	13	<0.5	<0.5	<0.5
	10/06/92	9.55	110	62	<0.5	<0.5	<0.5	<0.5
	01/06/93	9.86	81	85	1.1	<0.5	<0.5	<0.5
	04/26/93	6.30	53[c]	<50	<0.5	<0.5	<0.5	<0.5
	04/26/93[dup]	6.30	53[c]	<50	<0.5	<0.5	<0.5	<0.5
	07/20/93	8.78	140	<50	<0.5	<0.5	<0.5	<0.5
	10/18/93	9.20	210	<50	<0.5	<0.5	<0.5	<0.5
	01/07/94	9.53	<50	<50	1.4	0.55	1.5	2.8
	01/07/94[dup]	9.53	53	<50	1.2	<0.5	1.5	2.7
	04/11/94	8.50	320	<50	2.8	<0.5	<0.5	<0.5
	04/11/94[dup]	8.50	220	<50	2.6	<0.5	<0.5	<0.5
	07/19/94	9.07	110	<50	<0.5	<0.5	<0.5	<0.5
	10/06/94	11.68	370	110	1.4	<0.5	<0.5	<0.5
	01/04/95	8.51	1,000	120	2.5	1.5	<0.5	1.7
	04/12/95	6.66	290	<50	2.1	<0.5	<0.5	<0.5
	04/12/95[dup]	6.66	480	<50	<0.5	<0.5	<0.5	<0.5
	07/07/95	6.95	370	<50	5.5	<0.5	<0.5	<0.5
	07/07/95[dup]	6.95	450	<50	6.5	<0.5	<0.5	<0.5
	10/05/95	**8.50**	**200**	**<50**	**3.9**	**<0.5**	**1.2**	**2.4**
S-2	01/23/91	10.55	1,200	2,500	550	33	15	42
	04/25/91	8.24	20,000[b]	32,000	2,900	1,400	480	2,300
	07/19/91	9.55	30,000[b]	21,000	4,700	1,200	430	2,400

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Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-5510-0204, 350 Grand Avenue, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	E	T	X
			← parts per billion (µg/L) →					
	10/09/91	10.26	32,000[b]	29,000	6,300	1,700	510	2,400
	01/23/92	9.51	36,000[b]	31,000	5,800	2,000	480	2,700
	04/27/92	7.83	12,000[b]	21,000[d]	4,800	1,600	320	1,400
	07/10/92	8.57	3,700[c]	31,000	7,500	3,400	940	3,500
	10/06/92	9.49	4,500[c]	57,000	9,300	4,000	1,200	4,900
	01/06/93	8.56	5,600	55,000	5,600	3,000	360	3,000
	04/26/93	6.84	9,400[c]	32,000	10,000	4,400	500	3,600
	07/20/93	8.52	8,400[c]	25,000	5,800	2,700	300	1,400
	07/20/93[dup]	8.52	8,900[c]	25,000	5,900	2,800	310	1,400
	10/18/93	9.36	18,000[c]	23,000	3,700	2,100	200	1,600
	10/18/93[dup]	9.36	14,000[c]	28,000	3,700	2,100	210	1,600
	01/07/94	8.37	22,000[c]	120,000	6,900	3,100	400	2,600
	04/11/94	6.96	17,000[c]	34,000	4,800	1,900	170	880
	07/19/94	8.02	---	23,000	4,300	1,100	210	1,000
	07/19/94[dup]	8.02	---	29,000	4,700	1,200	270	1,200
	10/06/94	11.00	---	61,000	4,600	1,900	290	1,900
	10/06/94[dup]	11.00	---	52,000	5,200	2,100	270	1,900
	01/04/95	8.07	---	23,000	4,500	1,300	49	500
	01/04/95[dup]	8.07	---	18,000	3,800	1,100	33	390
	04/12/95	6.12	---	29,000	4,300	990	210	700
	07/07/95	6.35	---	26,000	4,200	1,100	180	730
	10/05/95	**7.36**	**10,000**	**26,000**	**3,500**	**1,100**	**150**	**640**
	10/05/95[dup]	**7.36**	**9,400**	**33,000**	**4,200**	**1,500**	**210**	**850**
S-3	01/23/91	14.67	---	<50	<0.5	<0.5	<0.5	<0.5
	04/25/91	12.96	---	<50	<0.5	<0.5	<0.5	<0.5
	07/19/91	12.45	---	<50	<0.5	<0.5	<0.5	<0.5
	10/09/91	12.98	---	<50	<0.5	<0.5	<0.5	<0.5
	01/23/92	13.06	---	<50	<0.5	<0.5	<0.5	<0.5
	04/27/92	7.25	100	<50	<0.5	<0.5	<0.5	<0.5

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-5510-0204, 350 Grand Avenue, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	E	T	X
			← parts per billion (µg/L) →					
	07/10/92	8.46	68	<50	<0.5	<0.5	<0.5	<0.5
	10/06/92	11.77	<10	<50	<0.5	<0.5	<0.5	<0.5
	01/06/93	12.53	<10	<50	<0.5	<0.5	<0.5	<0.5
	04/26/93	4.28	69	<50	<0.5	<0.5	<0.5	<0.5
	07/20/93	5.70	120	<50	<0.5	<0.5	0.6	<0.5
	10/18/93	10.30	160	<50	<0.5	<0.5	<0.5	<0.5
	01/07/94[f]	12.40	58	160	59	4.9	26	22
	04/11/94	10.94	<50	<50	<0.52	<0.5	<0.5	<0.5
	07/19/94	8.12	110[a]	<50	<0.5	<0.5	<0.5	<0.5
	10/06/94	12.15	<50	<50	<0.5	<0.5	<0.5	<0.5
	01/04/95	11.18	<50	<50	<0.5	<0.5	<0.5	<0.5
	04/12/95	3.76	110	<50	<0.5	<0.5	<0.5	<0.5
	07/07/95	4.72	410	<50	<0.5	<0.5	<0.5	<0.5
	10/05/95	**5.80**	**160**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
HP-1	01/27/93		14,000	22,000	2,500	1,400	130	140
HP-2	01/27/93		---	<50	<0.5	<0.5	4.4	<0.5
HP-3	01/27/93		---	<50	<0.5	<0.5	<0.5	<0.5
Trip Blank	01/23/91		---	<50	<0.5	<0.5	<0.5	<0.5
	04/25/91		---	---	---	---	---	---
	07/19/91		---	<50	<0.5	<0.5	<0.5	<0.5
	10/09/91		---	---	---	---	---	---
	01/23/92		<50	<50	<0.5	<0.5	<0.5	<0.5
	04/26/93		<50	<50	<0.5	<0.5	<0.5	<0.5
	07/20/93		---	<50	<0.5	<0.5	<0.5	<0.5
	10/18/93		<50	<50	<0.5	<0.5	<0.5	<0.5
	01/07/94		<50	<50	<0.5	<0.5	<0.5	<0.5

Table 2. Analytic Results for Ground Water, Former Shell Service Station, WIC #204-5510-0204, 350 Grand Avenue, Oakland, California (continued)

Sample ID	Date	Depth to Water (ft)	TPH-D	TPH-G	B	E	T	X
			← parts per billion (µg/L) →					
	04/11/94		<50	<50	<0.5	<0.5	<0.5	<0.5
	07/19/94		<50	<50	<0.5	<0.5	<0.5	<0.5
	10/06/94		---	<50	<0.5	<0.5	<0.5	<0.5
	01/04/95		---	<50	<0.5	<0.5	<0.5	<0.5
	04/12/95		---	<50	<0.5	<0.5	<0.5	<0.5
	07/07/95		---	<50	<0.5	<0.5	<0.5	<0.5
	10/05/95		**---**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
DTSC MCLs				NE	1	680	100[g]	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
--- = Not analyzed
DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample
HP = Hydropunch ground water sample

Notes:

a = compounds detected and calculated as diesel are not characteristic of the standard diesel chromatographic pattern
b = Compounds detected and calculated as diesel appear to be the less volatile constituents of gasoline
c = Concentration reported as diesel primarily due to the presence of a heavier petroleum product, possibly motor oil
d = Compounds detected and calculated as gasoline are not characteristic of the standard gasoline chromatographic pattern
e = Concentration reported as diesel is primarily due to the presence of lighter petroleum product, possibly gasoline
f = TPH-G/BETX concentrations anomalous with historical data. Lab verified concentrations.
g = DTSC recommended action level for drinking water; MCL not established

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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

October 27, 1995

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

Attn: R. Jeff Granberry

Shell WIC #204-5510-0204
350 Grand Avenue
Oakland, California

4th Quarter 1995

Quarterly Groundwater Monitoring Report 951005-J-1

Blaine Tech Services, Inc. performs environmental sampling and documentation as an independent third party. Copies of our Sampling Report along with the laboratory's Certified Analytical Report are forwarded to the consultant overseeing work at this site. Submission of the assembled documents to interested regulatory agencies will be made by the designated consultant.

Groundwater monitoring at this site was performed in accordance with Standard Operating Procedures provided to the interested regulatory agencies. If you have any questions about the work performed at this site please call me at (408) 995-5535 ext. 201.

Yours truly,

Francis Thie

attachments: Table of Well Gauging Data
Chain of Custody
Field Data Sheets
Certified Analytical Report

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

(Any professional evaluations or recommendations will be made by the consultant under separate cover.)

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	10/5/95	TOB	--	NONE	--	--	8.50	17.76
S-2 *	10/5/95	TOB	ODOR	NONE	--	--	7.36	15.16
S-3	10/5/95	TOB	--	NONE	--	--	5.80	15.16

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

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD
Serial No: 951005-J1

Date:
Page 1 of 1

Site Address: 350 Grand Avenue, Oakland

WIC#: 204-5510-0204

Shell Engineer: Dan Kirk — Phone No.: (510) 675-6168 Fax #: 675-6172

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:

Printed Name: Matt James

LAB: ~~Accutest~~ NET

Analysis Required

Sample ID	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			Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
S-1	10/5			W		5		X				X								
S-2						5		X				X								
S-3						5		X				X								
EB						5		X				X			1					
DUP						5		X				X								
TB						2						X								

CUSTODY SEALED
Date 10/6/95 Time 1732 Initials RB
SEAL INTACT?
Yes ✓ No ___ Initials

	Printed Name	Date	Time		Printed Name	Date	Time
Relinquished By (Signature):	Matt James	10/6/95	1445	Received (Signature):	Phyllis Smart	10/6/95	1445
Relinquished By (Signature):	Phyllis Smart	10/6/95	1732	Received (Signature):			
Relinquished By (Signature):				Received (Signature):	Phil Prosser	10/7/95	0905

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: 10/23/1995
NET Client Acct. No: 1821
NET Job No: 95.03956
Received: 10/07/1995

Client Reference Information

Shell 350 Grand Ave., Oakland, CA./951005-J1

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:

Ginger Brinlee
Project Coordinator

Enclosure(s)

Ref: Shell 350 Grand Ave., Oakland, CA./951005-J1

SAMPLE DESCRIPTION: S-1
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252980

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)							10/16/1995	3266
DILUTION FACTOR*	1						10/16/1995	3266
Purgeable TPH	ND		50	ug/L	5030/M8015		10/16/1995	3266
Carbon Range: C6 to C12	--						10/16/1995	3266
METHOD 8020 (GC, Liquid)	--						10/16/1995	3266
Benzene	3.9	C	0.5	ug/L	8020		10/16/1995	3266
Toluene	1.2	C	0.5	ug/L	8020		10/16/1995	3266
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1995	3266
Xylenes (Total)	2.4	C	0.5	ug/L	8020		10/16/1995	3266
SURROGATE RESULTS	--						10/16/1995	3266
Bromofluorobenzene (SURR)	83			% Rec.	8020		10/16/1995	3266
METHOD 3510/8015-M (Shell)						10/12/1995		
DILUTION FACTOR*	1						10/12/1995	1090
Extractable TPH	200		50	ug/L	3510/M8015		10/12/1995	1090
Carbon range: C9 to C24	--						10/12/1995	1090

C : Positive result confirmed by secondary column or GC/MS analysis.

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SAMPLE DESCRIPTION: S-2
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252981

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						10/16/1995	3266
Purgeable TPH	26,000		5,000	ug/L	5030/M8015		10/16/1995	3266
Carbon Range: C6 to C12	--						10/16/1995	3266
METHOD 8020 (GC, Liquid)	--						10/16/1995	3266
Benzene	3,500	FF	50	ug/L	8020		10/16/1995	3276
Toluene	150		50	ug/L	8020		10/16/1995	3266
Ethylbenzene	1,100	FF	50	ug/L	8020		10/16/1995	3276
Xylenes (Total)	640		50	ug/L	8020		10/16/1995	3266
SURROGATE RESULTS	--						10/16/1995	3266
Bromofluorobenzene (SURR)	80			% Rec.	8020		10/16/1995	3266
METHOD 3510/8015-M (Shell)						10/12/1995		
DILUTION FACTOR*	10						10/12/1995	1090
Extractable TPH	10,000		500	ug/L	3510/M8015		10/12/1995	1090
Carbon range: C9 to C24	--						10/12/1995	1090

FF : Compound quantitated at a 100X dilution factor.

Client Name: Blaine Tech Services
Client Acct: 1821
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Ref: Shell 350 Grand Ave., Oakland, CA./951005-J1

SAMPLE DESCRIPTION: S-3
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252982

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)							10/16/1995	3266
DILUTION FACTOR*	1						10/16/1995	3266
Purgeable TPH	ND		50	ug/L	5030/M8015		10/16/1995	3266
Carbon Range: C6 to C12	--						10/16/1995	3266
METHOD 8020 (GC, Liquid)	--						10/16/1995	3266
Benzene	ND		0.5	ug/L	8020		10/16/1995	3266
Toluene	ND		0.5	ug/L	8020		10/16/1995	3266
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1995	3266
Xylenes (Total)	ND		0.5	ug/L	8020		10/16/1995	3266
SURROGATE RESULTS	--						10/16/1995	3266
Bromofluorobenzene (SURR)	86			% Rec.	8020		10/16/1995	3266
METHOD 3510/8015-M (Shell)						10/12/1995		
DILUTION FACTOR*	1						10/12/1995	1090
Extractable TPH	160		50	ug/L	3510/M8015		10/12/1995	1090
Carbon range: C9 to C24	--						10/12/1995	1090

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SAMPLE DESCRIPTION: EB
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252983

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/16/1995	3266
Purgeable TPH	ND		50	ug/L	5030/M8015		10/16/1995	3266
Carbon Range: C6 to C12	--						10/16/1995	3266
METHOD 8020 (GC, Liquid)	--						10/16/1995	3266
Benzene	ND		0.5	ug/L	8020		10/16/1995	3266
Toluene	ND		0.5	ug/L	8020		10/16/1995	3266
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1995	3266
Xylenes (Total)	ND		0.5	ug/L	8020		10/16/1995	3266
SURROGATE RESULTS	--						10/16/1995	3266
Bromofluorobenzene (SURR)	85			% Rec.	8020		10/16/1995	3266
METHOD 3510/8015-M (Shell)						10/12/1995		
DILUTION FACTOR*	1						10/12/1995	1090
Extractable TPH	ND		50	ug/L	3510/M8015		10/12/1995	1090
Carbon range: C9 to C24	--						10/12/1995	1090

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SAMPLE DESCRIPTION: DUP
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252984

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)							10/16/1995	3276
DILUTION FACTOR*	50						10/16/1995	3276
Purgeable TPH	33,000		2,500	ug/L	5030/M8015		10/16/1995	3276
Carbon Range: C6 to C12	--						10/16/1995	3276
METHOD 8020 (GC, Liquid)	--						10/16/1995	3276
Benzene	4,200	FF	50	ug/L	8020		10/16/1995	3276
Toluene	210		25	ug/L	8020		10/16/1995	3276
Ethylbenzene	1,500		25	ug/L	8020		10/16/1995	3276
Xylenes (Total)	850		25	ug/L	8020		10/16/1995	3276
SURROGATE RESULTS	--						10/16/1995	3276
Bromofluorobenzene (SURR)	100			% Rec.	8020		10/16/1995	3276
METHOD 3510/8015-M (Shell)						10/12/1995		
DILUTION FACTOR*	10						10/12/1995	1090
Extractable TPH	9,400		500	ug/L	3510/M8015		10/12/1995	1090
Carbon range: C9 to C24	--						10/12/1995	1090

FF : Compound quantitated at a 100X dilution factor.

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SAMPLE DESCRIPTION: TB
Date Taken: 10/05/1995
Time Taken:
NET Sample No: 252985

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
METHOD 5030/8015-M (Shell)							10/16/1995	3276
DILUTION FACTOR*	1						10/16/1995	3276
Purgeable TPH	ND		50	ug/L	5030/M8015		10/16/1995	3276
Carbon Range: C6 to C12	--						10/16/1995	3276
METHOD 8020 (GC, Liquid)	--						10/16/1995	3276
Benzene	ND		0.5	ug/L	8020		10/16/1995	3276
Toluene	ND		0.5	ug/L	8020		10/16/1995	3276
Ethylbenzene	ND		0.5	ug/L	8020		10/16/1995	3276
Xylenes (Total)	ND		0.5	ug/L	8020		10/16/1995	3276
SURROGATE RESULTS	--						10/16/1995	3276
Bromofluorobenzene (SURR)	83			% Rec.	8020		10/16/1995	3276

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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	106.0	0.53	0.50	mg/L	10/16/1995	dld	3266
Benzene	91.2	4.56	5.00	ug/L	10/16/1995	dld	3266
Toluene	105.0	5.25	5.00	ug/L	10/16/1995	dld	3266
Ethylbenzene	107.2	5.36	5.00	ug/L	10/16/1995	dld	3266
Xylenes (Total)	100.7	15.1	15.0	ug/L	10/16/1995	dld	3266
Bromofluorobenzene (SURR)	91.0	91	100	% Rec.	10/16/1995	dld	3266
METHOD 5030/8015-M (Shell)							
Purgeable TPH	108.0	0.54	0.50	mg/L	10/16/1995	dat3	3276
Benzene	101.2	5.06	5.00	ug/L	10/16/1995	dat3	3276
Toluene	98.6	4.93	5.00	ug/L	10/16/1995	dat3	3276
Ethylbenzene	101.4	5.07	5.00	ug/L	10/16/1995	dat3	3276
Xylenes (Total)	96.7	14.5	15.0	ug/L	10/16/1995	dat3	3276
Bromofluorobenzene (SURR)	87.0	87	100	% Rec.	10/16/1995	dat3	3276
METHOD 3510/8015-M (Shell)							
Extractable TPH	95.2	952	1000	mg/L	10/12/1995	tts	1090

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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	10/16/1995	dat1	3266
Benzene	ND	0.5	ug/L	10/16/1995	dat1	3266
Toluene	ND	0.5	ug/L	10/16/1995	dat1	3266
Ethylbenzene	ND	0.5	ug/L	10/16/1995	dat1	3266
Xylenes (Total)	ND	0.5	ug/L	10/16/1995	dat1	3266
Bromofluorobenzene (SURR)	94		% Rec.	10/16/1995	dat1	3266
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	0.05	mg/L	10/16/1995	dat3	3276
Benzene	ND	0.5	ug/L	10/16/1995	dat3	3276
Toluene	ND	0.5	ug/L	10/16/1995	dat3	3276
Ethylbenzene	ND	0.5	ug/L	10/16/1995	dat3	3276
Xylenes (Total)	ND	0.5	ug/L	10/16/1995	dat3	3276
Bromofluorobenzene (SURR)	82		% Rec.	10/16/1995	dat3	3276
METHOD 3510/8015-M (Shell)						
Extractable TPH	ND	0.05	mg/L	10/12/1995	tts	1090

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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)											252980
Purgeable TPH	108.0	110.0	1.8	0.5	ND	0.54	0.55	mg/L	10/16/1995	3266	252980
Benzene	105.0	101.3	3.6	8.0	3.9	12.3	12.0	ug/L	10/16/1995	3266	252980
Toluene	98.7	97.6	1.1	29.7	1.2	30.5	30.2	ug/L	10/16/1995	3266	252980
METHOD 5030/8015-M (Shell)											253856
Purgeable TPH	106.0	86.0	20.7	0.5	ND	0.53	0.43	mg/L	10/16/1995	3276	253856
Benzene	97.4	85.5	13.0	7.6	ND	7.4	6.5	ug/L	10/16/1995	3276	253856
Toluene	99.6	94.4	5.4	25.2	ND	25.1	23.8	ug/L	10/16/1995	3276	253856
METHOD 3510/8015-M (Shell)											252954
Extractable TPH	117.7	73.8	45.7	3.85	4.3	8.83	7.03	mg/L	10/16/1995	1091	252954

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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
METHOD 3510/8015-M (Shell)										
Extractable TPH	79.0			1.58		2.00	mg/L	10/12/1995	tts	1090

NET®

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: 951005-J1 Log No: 8189
ooler received on: 10/7/95 and checked on 10/7/95 by
(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 TEMP. 1.0°C.

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
Note which voas (if any) had bubbles:*

ample descriptor:	Number of vials:
S-3	HI=2
FB	2HI=3
TB	2

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

ist here all other jobs received in the same cooler:

lient Job #	NET log #

(coolerrec)