Clsd LOP File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

Alameda County Environmental Health Dept.
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577
(510)567-6700 fax: (510)337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 1976 - 318 South Livermore Ave, Livermore, CA

December 8, 1995

Mr. Jeff Granberry
Shell Oil
P.O. Box 5278
Concord, CA 94520

Dear Mr. Granberry:

This letter confirms the completion of site investigation and remedial action for the five former underground storage tanks (1-500, 2-5,000, and 2-8,000 gallon tanks) removed from the above site in August 1987 and on November 17, 1993. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Jun Makishima

Jun Makishima, Interim Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Mike Harper, SWRCB (with attachment)
files (shell-lv.6)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: August 10, 1995**

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Livermore Ave. Shell**
Site facility address: **318 S. Livermore Ave, Livermore 94550**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **1976**
URF filing date: **12/15/89** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Shell Oil Co. **Attn. Dan Kirk**	**P.O. Box 5278** **Concord, CA 94520**	**510/675-6168**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	Waste Oil	Removed	August 1987
2	5,000	Gasoline	Removed	12/5/89
3	5,000	Gasoline	Removed	12/5/89
4	8,000	Gasoline	Removed	12/5/89
5	8,000	Gasoline	Removed	12/5/89

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Possible piping leak.**
Site characterization complete? **YES**
Date approved by oversight agency: **5/25/95**
Monitoring Wells installed? **Yes** Number: **4**
Proper screened interval? **Yes, at the time of installation (36.0 to 51' bgs)**
Highest GW depth below ground surface: **28.10'** Lowest depth: **below screen**
Flow direction: **SW to NW**
Most sensitive current use: **Residential**
Are drinking water wells affected? **No** Aquifer name: **Mocho Subbasin**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	5 USTs	Erickson, in Richmond	8/89, 12/5/98
Piping			
Free Product			
Soil	404 cy	W. Contra Costa L.F. in Richmond	12/89 to 1/90
	40 cy	Aerated and left onsite	

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant		Soil (ppm) Before	Soil (ppm) After[1]	Water (ppb) Before	Water (ppb) After
TPH (Gas)		870	13	ND	90
TPH (Diesel)					
Benzene		ND	.11	ND	7.4
Toluene		1.3[2]	ND	ND	ND
Ethylbenzene		.87	ND	ND	.6
Xylenes		16	.41	ND	1.2
Oil & Grease		87			
Heavy metals	Total Pb	69[3]		3.3	ND
	Soluble Pb	6.1[3]			
Other	1,1,1 TCA	.140		NA	

NOTE:
1 from sample A, taken Dec 15, 1989
2 from piping sample
3 from stockpile soil

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **YES**
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **YES**
Does corrective action protect public health for current land use? **YES**
Site management requirements: **None**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **0, pending site closure**
Number Decommissioned: **0** Number Retained: **4**
List enforcement actions taken: **None**
List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: Date: 8/11/95

Reviewed by

Name: Jennifer Eberle Title: Haz Mat Specialist

Signature: Date: 8-11-95

Name: Juliet Shin Title: Sr. Haz Mat Specialist

Signature: Date: 8/11/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 8/14/95 RB Response: Approved

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature: Date: 8/21/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

This site is currently an active service station with three 12,000 gallon gasoline USTs, and one 550-gallon waste oil UST.

A 550-gallon steel waste oil UST was removed in August 1987 and replaced with a 550-gallon fiberglass tank. See Fig 1. The steel UST was rusted and pitted, but no obvious holes were noted. Two soil samples collected in native soil at 8 and 11' depths detected up to 87 ppm TOG and 140 ppb 1,1,1-TCA. (1,1,1-TCA detected in soil is below EPA's PRG level, and should pose no human health risk). See Table 1. TPH-D, BTEX, and other chlorinated hydrocarbons were not detected. Analysis for semi-volatile compounds were not conducted. The stockpiled soil was only analyzed for total and soluble lead, detecting 69 ppm and 6.1 ppm, respectively. However, there is no documentation available as to the disposition of the stockpiled soil, or whether the pit was overexcavated.

On February 27, 1989 four soil borings, S-A thru S-D, were advanced around the tank gasoline complex. See Fig 2. Soil collected from each boring did not detect TPH-G or BTEX. See Table 2. In March 1989 soil was collected from the backfill material around the fill pipe of the regular leaded gasoline tank, detecting 37,000 ppm TPH-G, 320, 2,300, 700, and 5,400 ppm BTEX, respectively, 550 ppm total lead and 42 ppm soluble lead.

Four gasoline USTs and associated pipings were removed on Dec 5, 1989, and replaced with new tanks. See Fig 3. Eight soil samples collected from native soil beneath the USTs detected up to 870 ppm TPH-G, ND for benzene, and low levels of TEX. See Table 3. The pit appeared to have been overexcavated and soil samples collected on December 11, 12, and 15, 1989. See Fig 4. Confirmatory soil samples (A and B) collected on Dec 15th detected up to 12 ppm TPH-G, .11, ND, ND, and .41 ppm BTEX, respectively. See Fig 5.

In May 1990 four soil borings were advanced, three around the former gasoline tank excavation, and one approximately 20' S-SW of the former waste oil UST. See Fig 6. The four borings were converted into monitoring wells. Soil samples collected from the borings did not detect TPH-G, and detected low to ND levels of BTEX. Groundwater did not detect contaminants sought (TPH-G or BTEX) in June 1990.

Groundwater has been sampled eight times, from June 1990 to Feb 1995. See Table 4. Well MW-3 has detected up to 90 ppb TPH-G and 7.4 ppb benzene. It does not appear groundwater has been significantly impacted by the fuel release at this site. Continued ground water sampling is not warranted.

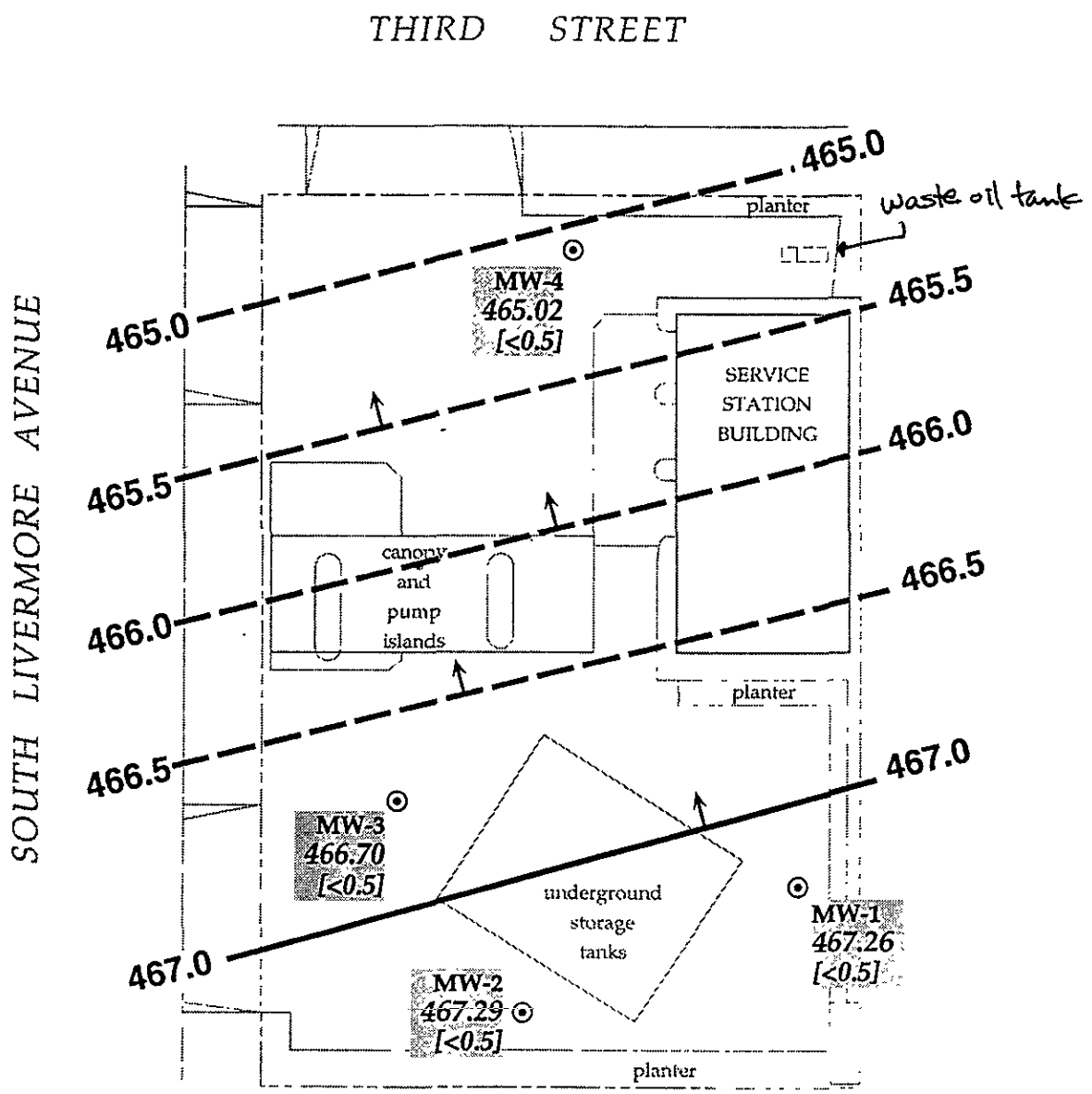
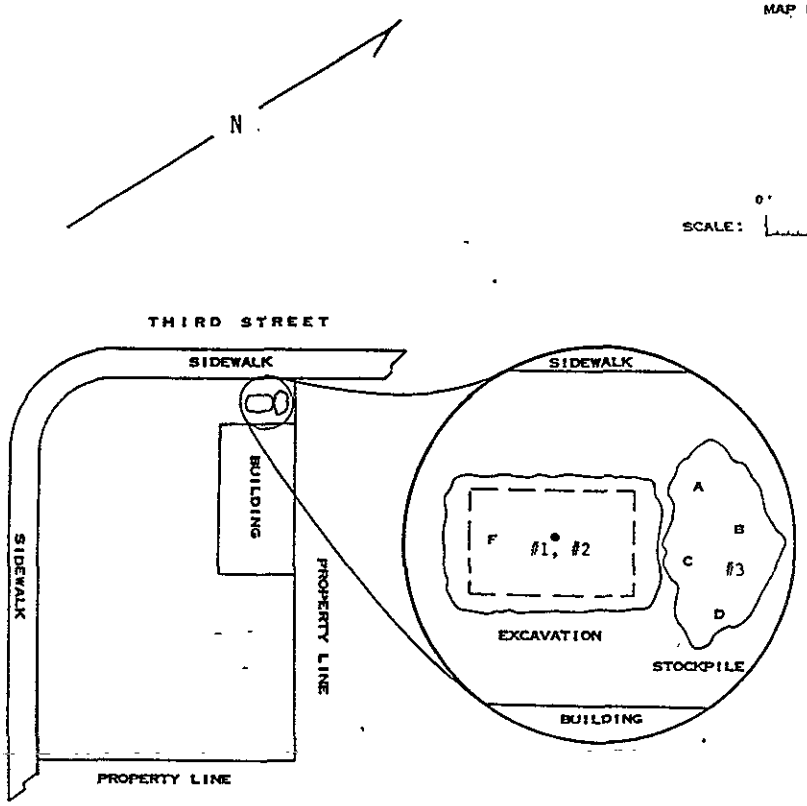


Figure 2. Monitoring Well Locations, Ground Water Elevation Contours, Benzene Concentrations in Ground Water - February 28, 1995 - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California

ORIGINAL SAMPLING REPORT 87232-C-1 page 2 diagram

BLAINE TECH SERVICES SAMPLING REPORT 87232C1 8-20-87 SHELL STATION, 318 SOUTH LIVERMORE AVENUE, LIVERMORE, CA.

MAP REF: THOMAS BROS. ALAMEDA COUNTY PG. 40 E-7



#1 SOIL FROM 8'
50 PPM VAPOR
ANALYSIS FOR TOTAL OIL AND GREASE (TOG), TOTAL PETROLEUM HYDROCARBONS (TPH) - HIGH BOILING FRACTION (HBF), AND EPA 8010 AND EPA 8020 AT SEQUOIA ANALYTICAL LABORATORY
SEQUOIA LAB NO. 7081426

#2 SOIL FROM 11'
75 PPM VAPOR
ANALYSIS FOR TOG, TPH - (HBF) AND EPA 8010 AND EPA 8020
SEQUOIA LAB NO. 7081428

#3 STOCKPILE SOIL COMPOSITE AT SAMPLE POINTS A-D
ANALYSIS FOR TOG, TPH - (HBF) AND EPA 8010 AND EPA 8020
SEQUOIA LAB NO.

SAMPLING PERFORMED BY STEVE CARTER
DIAGRAM PREPARED BY BRENT E. ADAMS

PAGE 2

Fig 1

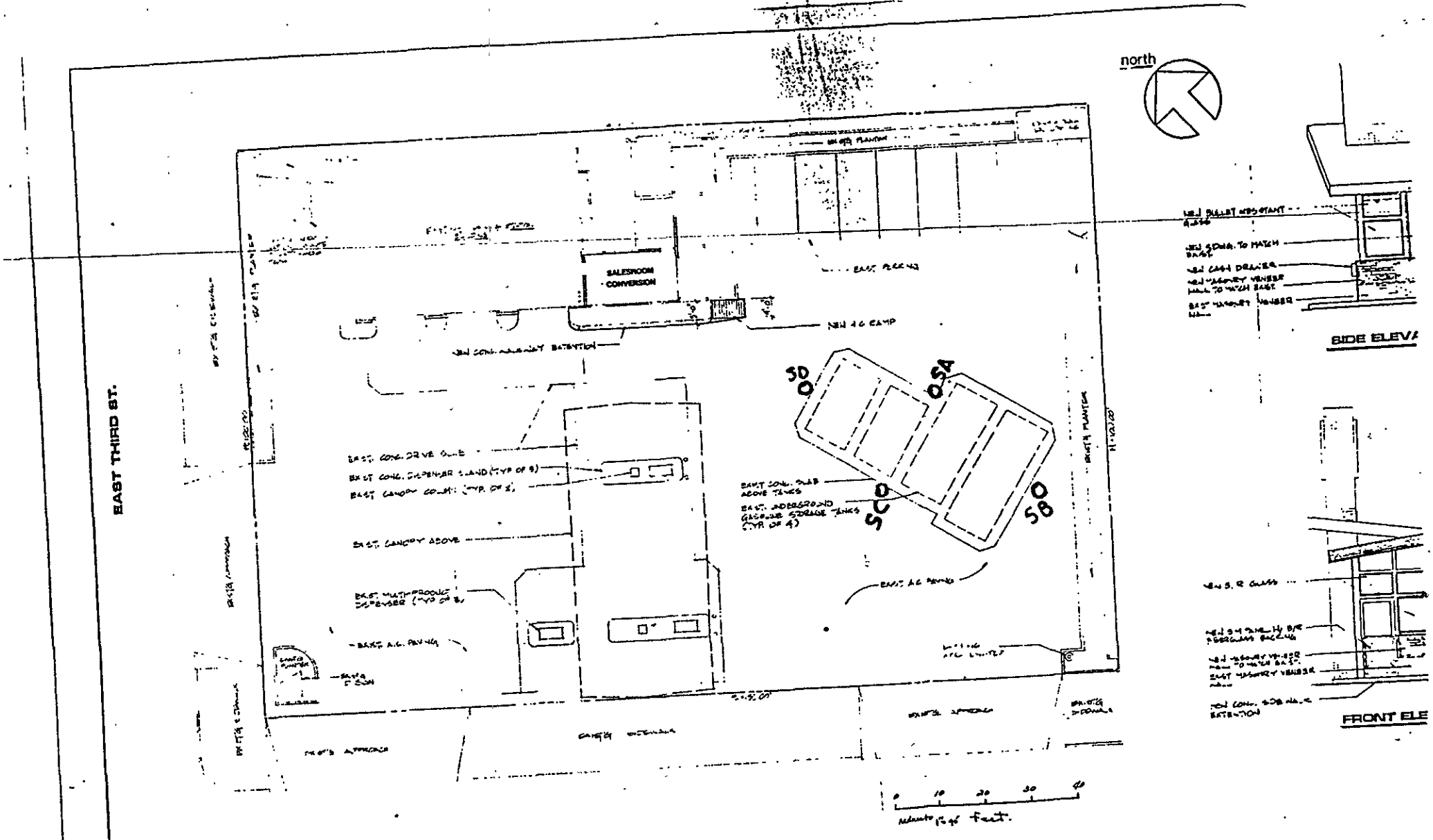
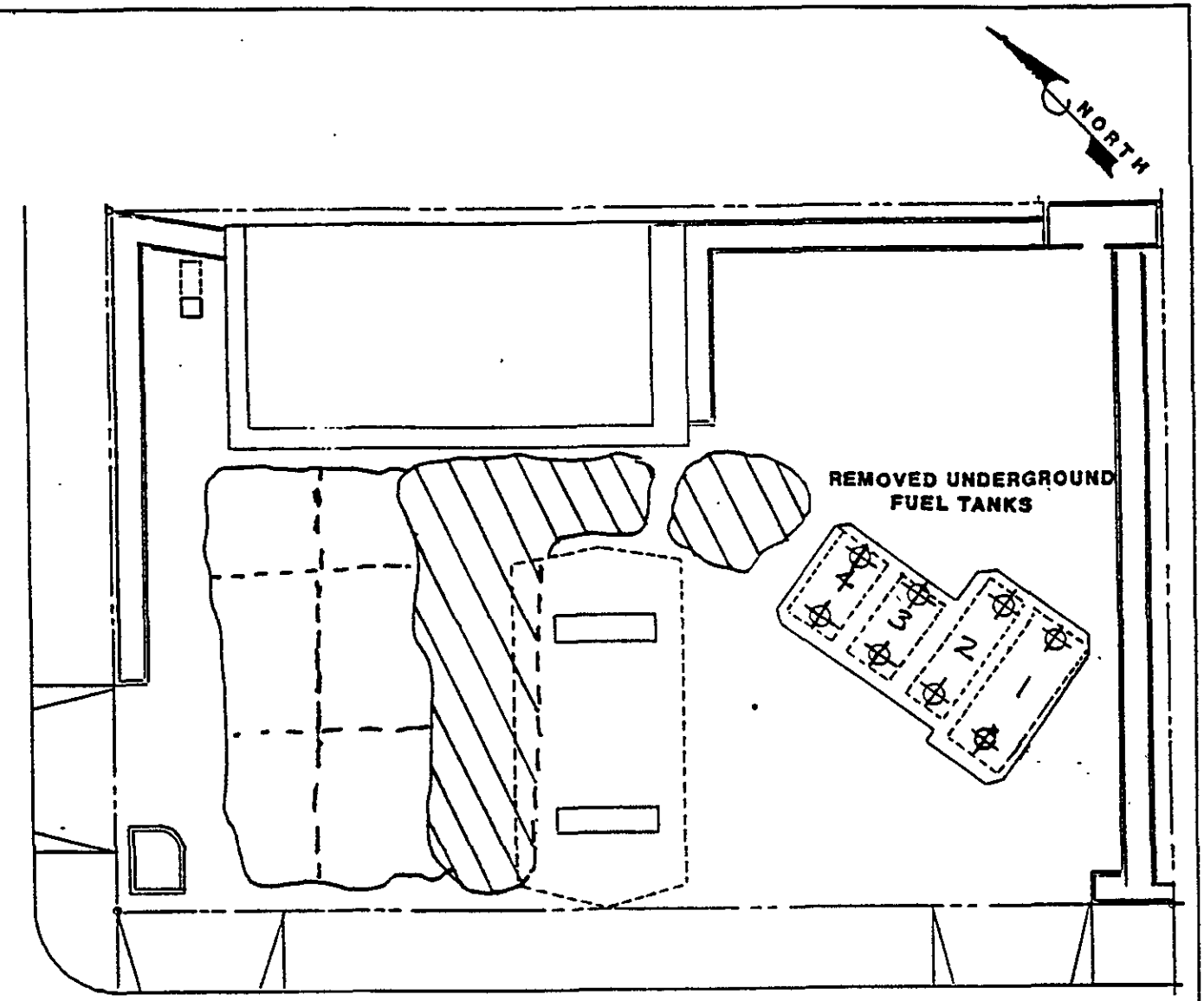


Fig 2

~~FIGURE X~~

MODIFIED AFTER SITE PLAN
PROVIDED BY GETTLER-RYAN, INC.

1" = 30'



SOIL SAMPLE LOCATIONS

SAMPLE DATE
DECEMBER 5, 1989

Fig. 3

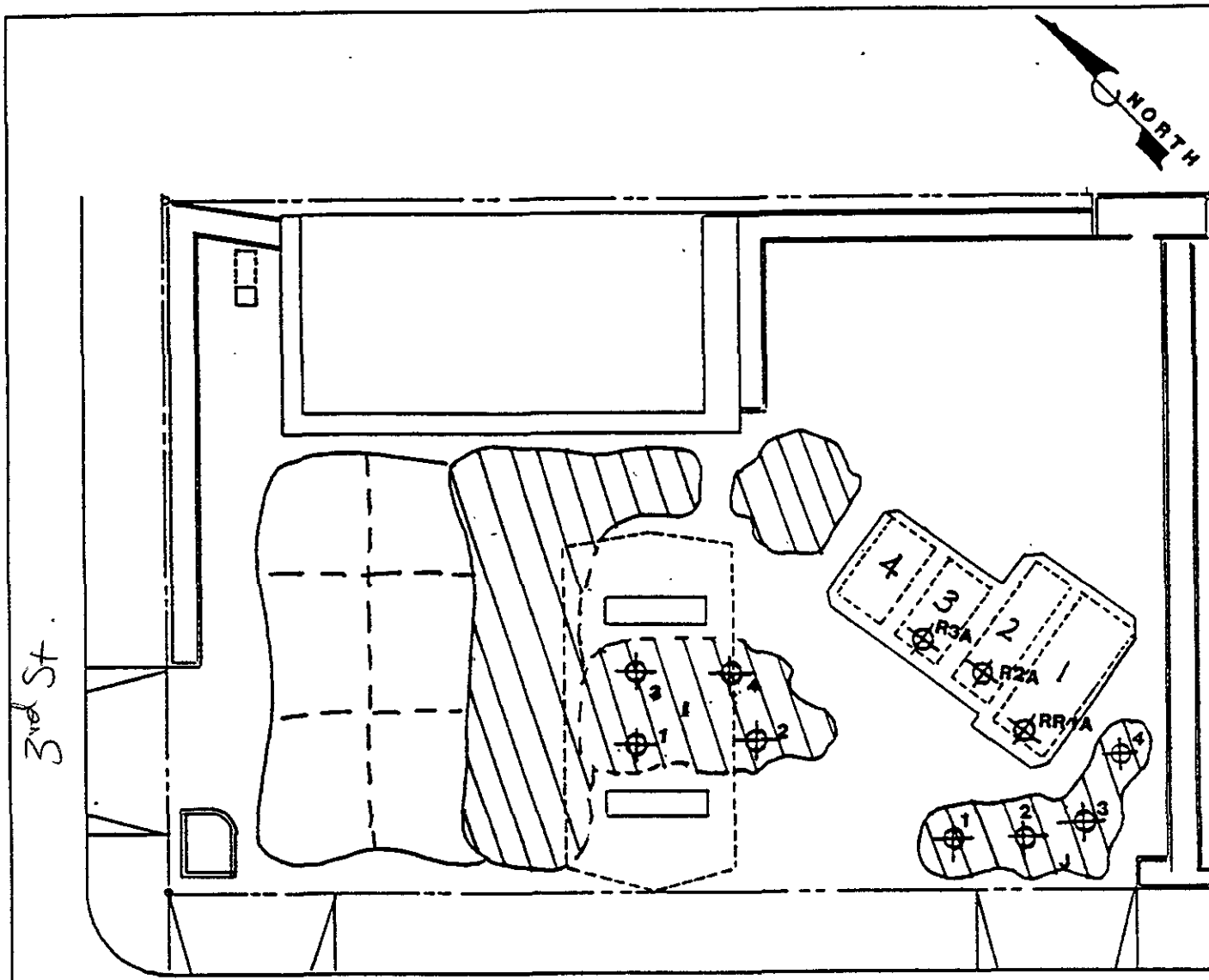
SCALE
1" = 23'

0 23

SITE MAP#2
Shell Service Station
318 South Livermore Ave.
Livermore, Ca.

AEGIS JOB NO. 89-041

DRAWN BY: Ed Bernard DATE: Dec. 18, 1989
REVIEWED BY: DATE:



⊕ —SOIL SAMPLE LOCATIONS

SAMPLE DATE
DECEMBER 12, 1989

Livermore Av.

Fig 4

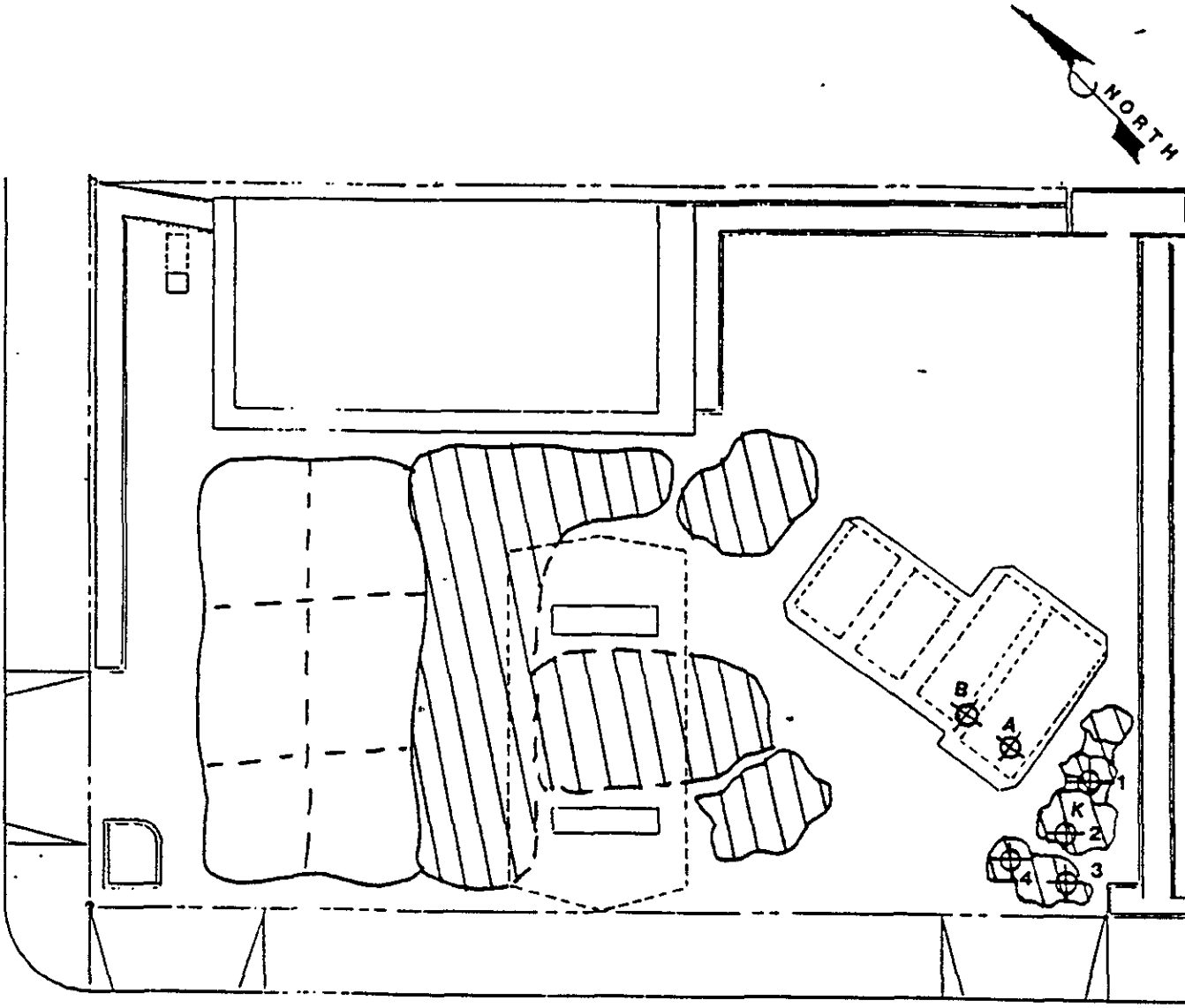
SCALE
1" = 23'

0 23

SITE MAP #4
Shell Service Station
318 South Livermore Ave.
Livermore, Ca.

AEGIS JOB NO. 89-041

DRAWN BY: Ed Bernard DATE: Dec. 18, 1989
REVIEWED BY: DATE:



⊕ – SOIL SAMPLE LOCATIONS

SAMPLE DATE
DECEMBER 15, 1989

Fig 5

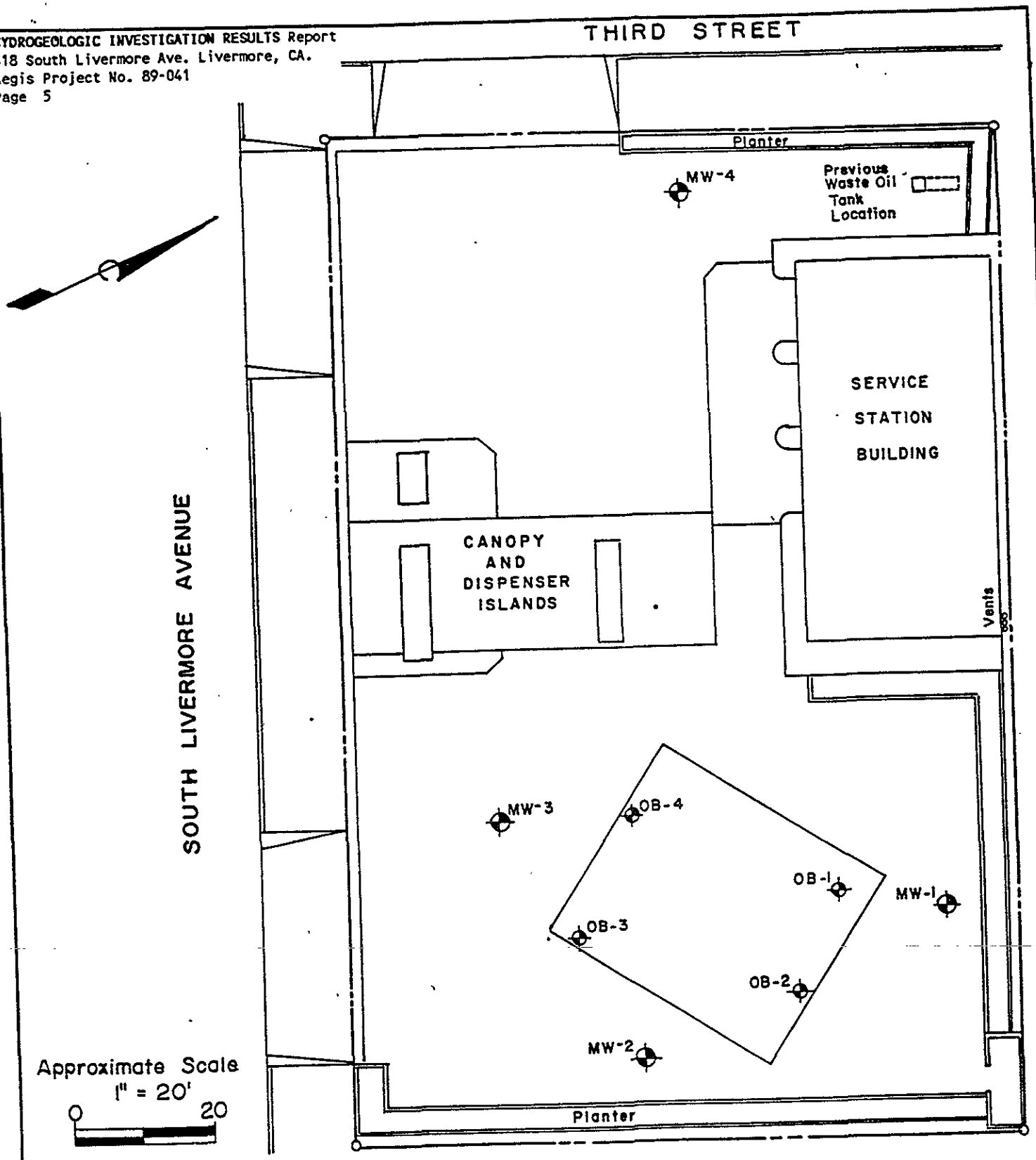
SCALE
1" = 23'

0 23

SITE MAP#5
Shell Service Station
318 South Livermore Ave.
Livermore, Ca.

AEGIS JOB NO. 89-041

DRAWN BY: Ed Bernard DATE: Dec. 18, 1989
REVIEWED BY: DATE:



NOTE: Site Sketch After Site Plan By R.H. LEE & Associates, Inc. 11/14/86

LEGEND

Monitoring Well (MW-3)
Observation Well (OB-2)

FIGURE 6
SITE MAP
Shell Service Station
318 South Livermore Avenue
Livermore, Ca.

AEGIS Job No. 89-041

DRAWN BY: Ed Bernard DATE: June 27,1990
REVIEWED BY:

Table 1

TABLE 1. Analytic Results for Soil, Shell Service Station WIC #204-4380-0303, 318 S. Livermore Avenue, Livermore, California

Sample ID	Depth	Sample Type	Sampled By	Date Sampled	Analytic Lab	Analytic Method	TPH	B	E	T	X	TOG	VOCs	Total Lead	Soluble Lead
							<----------parts per million---------->								
Soil #1	8 ft	Native	BT	8-20-87	SEQ	3550/8010/8015 8020/503E	<1.0	<0.050	<0.050	<0.050	NA	87	ND	NA	NA
Soil #2	11 ft	Native	BT	8-20-87	SEQ	3550/8010/8015 8020/503E	<1.0	<0.050	<0.050	<0.050	NA	48	*1	NA	NA
Soil #3	---	Stockpile Composite	BT	8-20-87	SEQ	3050/7421 WET	NA	NA	NA	NA	NA	NA	NA	69	6.1

Abbreviations:

TPH = Total Petroleum Hydrocarbons as diesel
B = Benzene
E = Ethylbenzene
T = Toluene
X = Xylenes
TOG = Total Oil and Grease
VOCs = Volatile Organic Compounds
NA = Not Analyzed
ND = Not detected at detection limits between 0.005 and 0.020 ppm
BT = Blaine Tech Services, San Jose, CA
SEQ = Sequoia Analytical Laboratory, Redwood City, CA

Analytic Method:

3550 = EPA Method 3550, Sonification Extraction
8010 = EPA Method 8010, Gas Chromatography with "Hall" Detector
8020 = EPA Method 8020, Gas Chromatography with Photoionization Detector
8015 = EPA Method 8015, Gas Chromatography with Flame Ionization
503E = APHA Method 503E, Gravimetric Quantitation of Non-volatile Hydrocarbons
3050 = EPA Method 3050, Acid digestion
7421 = EPA Method 7421, Atomic Absorption Quantitation
WET = DHS Waste Extraction Test

Footnotes

*1 = 1,1,1-trichloroethane detected at 140 ppb.

WEISS ASSOCIATES

Table 2

ITAS/San Jose to Gettler-Ryan
ATTN: John Werfal

March 6, 1989

Project: GR #9657, WCC #882ØØ11A/Ø117, Shell, 318 S. Livermore, Livermore

Summary of Results

ND = None Detected

Lab Number	Sample Identification	Milligrams per Kilogram - (Dry Soil Basis) Low Boiling Hydrocarbons (calculated as gasoline)	Benzene	Toluene	Ethyl Benzene	Xylenes
S9-Ø2-229-Ø3	SA-3-4	ND	ND	ND	ND	ND
S9-Ø2-229-Ø6	SB-3-4	ND	ND	ND	ND	ND
S9-Ø2-229-Ø9	SC-3-4	ND	ND	ND	ND	ND
S9-Ø2-229-12	SD-3-4	ND	ND	ND	ND	ND
Detection Limit		5.	Ø.Ø5	Ø.1	Ø.1	Ø.3

Table #~~1~~ 3
Soil Sample Analytical Results
Results Reported in Parts Per Million
Sample Date: November 30, 1989

Sample ID	T.P.H. G	T.P.H. D	T.P.H. MO	B T E X Benzene	Ethylbenzene	Toluene	Xylenes
(Composite) A-1, A-2, A-3	ND			ND	ND	ND	ND
(Composite) B-1, B-2, B-3	ND			ND	ND	ND	ND
(Composite) C-1, C-2, C-3	ND			ND	ND	ND	ND
(Composite) D-1, D-2, D-3	ND			ND	ND	ND	ND
(Composite) E-1, E-2, E-3	ND			ND	ND	ND	ND
(Composite) F-1, F-2, F-3	ND			ND	ND	ND	ND
(Composite) G-1, G-2, G-3	190			0.38	1.4	3.0	11.
(Composite) H-1, H-2, H-3, H-4	100			0.3	1.6	3.2	14
12-5-89 tank samples							
1 - A	870			ND	~~ND~~ 87	~~ND~~ .17	~~ND~~ ~~16~~ 16
2 - A	3.8			ND	ND	ND	~~16~~
3 - A	1.6			ND	ND	ND	ND

Continue Table 4 Soils

Sample ID	G	T.P.H. D	MO	B T E X Benzene	Ethylbenzene	Toluene	Xylenes
12-5-89 tank samples 4 - A	ND			ND	ND	ND	ND
1 - B	ND			ND	ND	ND	ND
2 - B	1.6			ND	ND	ND	ND
3 - B	ND			ND	ND	ND	ND
4 - B	1.3			ND	ND	ND	ND
Dec 12 1989 RR - 1 - A	180			ND	ND	ND	0.35
R - 2 - A	ND			ND	ND	ND	ND
R - 3 - A	ND			ND	ND	ND	ND
(Composite) I-1, I-2, I-3, I-4	12			ND	ND	ND	ND
(Composite) J-1, J-2, J-3, J-4	70			ND	ND	ND	0.72
(Composite) K-1, K-2, K-3, K-4	530			0.32	4.2	0.84	24
Dec 15, 1989 Final Soil Samples collected A	12			0.090	ND	ND	0.41
B	13			0.11	ND	ND	0.13

Table 4 Analytic Results for Ground Water - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California

Well ID & Sampling Frequency	Date	Depth to Water	TPH-G	B	E	T	X	Lead
			← parts per billion (µg/L) →					
MW-1	06/21/90	42.69	<30	<0.3	<0.3	<0.3	<0.3	---
(2nd & 4th	10/02/90	44.75	<30	<0.3	<0.3	<0.3	<0.3	---
Quarters)	09/02/92	---	---	---	---	---	---	---
	11/13/92	---	---	---	---	---	---	---
	01/25/93	47.47	<50	<0.5	<0.5	<0.5	<0.5	<3
	05/27/93	31.09	<50	<0.5	<0.5	<0.5	<0.5	---
	05/27/93[dup]	31.09	<50	<0.5	<0.5	<0.5	<0.5	---
	09/21/93	33.67	<50	<0.5	<0.5	<0.5	<0.5	---
	12/09/93	33.84	<50	<0.5	<0.5	<0.5	<0.5	---
	06/20/94	37.81	<50	<0.5	<0.5	<0.5	<0.5	---
	02/28/95	**28.82**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
MW-2	06/21/90	42.15	<30	<0.3	<0.3	<0.3	<0.3	---
(2nd & 4th	10/02/90	44.18	<30	<0.3	<0.3	<0.3	<0.3	---
Quarters)	09/02/92	Dry	---	---	---	---	---	---
	11/13/92	Dry	---	---	---	---	---	---
	01/25/93	47.14	<50	<0.5	<0.5	<0.5	<0.5	<3
	05/27/93	31.48	<50	<0.5	<0.5	<0.5	<0.5	---
	09/21/93	33.31	<50	<0.5	<0.5	<0.5	<0.5	---
	12/09/93	32.82	<50	<0.5	<0.5	<0.5	<0.5	---
	06/20/94	35.88	<50	<0.5	<0.5	<0.5	<0.5	---
	02/28/95	**28.20**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
MW-3	06/21/90	42.07	<30	<0.3	<0.3	<0.3	<0.3	---
(2nd & 4th	10/02/90	44.15	<30	<0.3	<0.3	<0.3	<0.3	---
Quarters)	09/02/92	Dry	---	---	---	---	---	---
	11/13/92	Dry	---	---	---	---	---	---
	01/25/93	47.02	<50	<0.5	<0.5	<0.5	<0.5	<3
	05/27/93	29.58	50	6.8	5	1.9	5.7	---

— Table 2 continues on next page —

Table 4 Analytic Results for Ground Water - Shell Service Station WIC #204-4380-0303, 318 South Livermore Avenue, Livermore, California (continued)

Well ID & Sampling Frequency	Date	Depth to Water	TPH-G	B	E	T	X	Lead
			← parts per billion (µg/L) →					
	09/21/93	33.79	80	2.3	0.9	1.0	0.9	---
	09/21/93^{dup}	33.79	90	2.3	0.9	0.9	4.0	---
	12/09/93	32.85	90	<0.5	<0.5	<0.5	<0.5	---
	12/09/93^{dup}	32.85	80	<0.5	<0.5	<0.5	<0.5	---
	06/20/94	35.81	90	7.4	<0.5	<0.5	<0.5	---
	06/20/94^{dup}	35.81	90	6.4	0.6	<0.5	1.2	---
	02/28/95	**28.10**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
	02/28/95^{dup}	**28.10**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
MW-4	06/21/90	42.21	<30	<0.3	<0.3	<0.3	<0.3	---
(2nd & 4th	10/02/90	44.27	<30	<0.3	<0.3	<0.3	<0.3	---
Quarters)	09/02/92	50.61	63	<0.5	<0.5	<0.5	<0.5	3.3
	09/02/92^{dup}	50.61	67	<0.5	<0.5	<0.5	<0.5	---
	11/13/92	Dry	---	---	---	---	---	---
	01/25/93	47.40	<50	<0.5	<0.5	<0.5	<0.5	<3
	01/25/93^{dup}	47.40	<50	<0.5	<0.5	<0.5	<0.5	<3
	05/27/93	32.54	<50	<0.5	<0.5	<0.5	<0.5	---
	09/21/93	33.55	<50	<0.5	<0.5	<0.5	<0.5	---
	12/09/93	33.65	<50	<0.5	<0.5	<0.5	<0.5	---
	06/20/94	35.46	<50	<0.5	<0.5	<0.5	<0.5	---
	02/28/95	**29.31**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**
Trip	09/02/92		<50	<0.5	<0.5	<0.5	<0.5	---
Blank	01/25/93		<50	<0.5	<0.5	<0.5	<0.5	<3
	05/27/93		<50	<0.5	<0.5	<0.5	<0.5	---
	09/21/93		<50	<0.5	<0.5	<0.5	<0.5	---
	12/09/93		<50	<0.5	<0.5	<0.5	<0.5	---
	06/20/94		<50	<0.5	<0.5	<0.5	<0.5	---
	02/28/95		**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**

— Table 2 continues on next page —

PROJECT NAME/LOCATION:	PROJECT NUMBER: 89-041	BORING NUMBER: MW3	SHEET 2 OF 2
Shell Station 318 S. Livermore Ave. Livermore, CA.	CONTRACTOR: PC Exploration Inc.	DRILLING METHOD: 6.5" HSA	
	DRILLER: Joe	DRILLING RIG: Mobile B 80	
LAND OWNER: Don Osche	START DATE: 5/30/90 TIME:	COMPLETED: 5/30/90 TIME:	

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INTVAL	DEPTH (ft.)	DESCRIPTION OF MATERIALS AND CONDITIONS	PID (ppm)	GENERAL OBSERVATION NOTES
SS				30	Silt: brown, stiff, clayey, moist.	5	FAINT PETROLEUM ODOR
SS	MW3 /G	5 8 12	35.0 to 37.0	35	Silt: brown, stiff, clayey, moist.	5	"
					ML		
ctg				40	Clay: brown, stiff, silty, moist.	0	NO PETROLEUM ODOR
* SS	MW3 /I	10 15 22	45.0 to 47.0	45	Clay: brown, stiff, silty, wet.	0	"
ctg				50	Clay: brown, stiff, silty, saturated.	0	"
					CL		
SS	MW3 /K	12 23 28	55.0 to 57.0	55	Silt: brown, sandy, saturated.	0	"
					ML		
					TOTAL DEPTH 55 FT.		
				60			

Field Notes:

Split Spoon Sampler, 2.5 OD
* = Sample Analyzed by Laboratory
ctg = Cuttings sample
First water encountered @ 45 ft.
Soil Description after USCS

Aegis Environmental Consultants

Logged By: L.Braybrooks

PROJECT NAME/LOCATION:	PROJECT NUMBER: 89-042	BORING NUMBER: MW-3	SHEET 1 OF 2
Shell Station 318 S Livermore Ave. Livermore, CA.	CONTRACTOR: PC Exploration Inc.	DRILLING METHOD: 6.5" HSA	
	DRILLER: Joe	DRILLING RIG: Mobile B 80	
LAND OWNER: Don Osche	START DATE: 5/30/90 TIME:	COMPLETED: 5/30/90 TIME:	

SAMPLE TYPE	SAMPLE NUMBER	BLOWS	SAMPLE INTERVAL	DEPTH (ft.)	DESCRIPTION OF MATERIALS AND CONDITIONS	PID (ppm)	GENERAL OBSERVATION NOTES
					Surface:Asphalt		
ctg				0	Gravel: brown, course, silty, dry.	0	NO PETROLEUM ODOR
SS	MW3/A	25 29 44	5.0 to 7.0	5	Gravel: brown, course, poorly graded, dry. GP	0	"
ctg				10	Silty Gravel: brown, moderately graded, dry. GM	0	"
SS	MW3/C	6 9 13	15.0 to 17.0	15	Silt: brown, stiff, clayey, slightly moist.	0	"
ctg				20	Silt: brown, stiff, clayey, slightly moist.	0	"
* SS	MW3/E	6 15 20	25.0 27.0	25	Silt: brown, stiff, clayey, moist.	0	"
SS	MW3/F	7 13 22	30.0 to 32.0	30	Silt: brown, stiff, clayey, moist. ML	5	FAINT PETROLEUM ODOR

Field Notes:

SS = Split Spoon Sampler, 2.5 OD
* = Sample Analyzed by Laboratory
ctg = Cuttings sample

Soil Description after USCS

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