



Original

October 27, 1997

Ms. Tammy Hodge
Chevron Products Company
6001 Bollinger Canyon Road, Building L
San Ramon, CA 94583-0804

RECEIVED
By Alameda County Environmental Health at 3:03 pm, Dec 04, 2014

Re: **Site Information Summary for Case Closure**
Former Asphalt Plant and Terminal #1001067
Powell Street and Landregan Street
Emeryville, California
Cambria Project No. 31-694.01

Dear Ms. Hodge:


As you requested, Cambria Environmental Technology, Inc. (Cambria) has reviewed Chevron Product Company's (Chevron) San Ramon project file for the above referenced site and has completed the attached Site Closure Summary Form.

It appears that the hydrocarbon and halogenated volatile organic compound (HVOC) source areas were excavated, removing nearly 1,100 cubic yards of soil from the site. The hydrocarbon and HVOC concentrations in ground water are steadily decreasing. According to the most current ground water data, April 22, 1997, no petroleum hydrocarbons were detected above maximum contaminant levels for drinking water (MCLs). No MTBE was detected in any of the April 22, 1997 ground water samples. Although the ground water sample from MW-19A contained 430 ppb total petroleum hydrocarbons as gasoline (TPHg), the site is no longer is utilized as a bulk asphalt plant and terminal and the TPHg concentrations are steadily decreasing. HVOCs historically were detected at a maximum of 7,000 parts per billion (ppb). However, HVOC maximum concentrations have decreased to 830 ppb and most concentrations are near or below MCLs.

Since the contaminant source areas were excavated and removed, the hydrocarbon and HVOC concentrations are steadily decreasing. Therefore, the site may be a closure candidate. Until closure is granted, we recommend sampling MW-10, MW-17, MW-18 and MW-19A annually.

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH: (510) 420-0700
FAX: (510) 420-9170

Sincerely,
Cambria Environmental Technology, Inc.


N. Scott MacLeod, R.G.
Principal Geologist



- Attachments:
- A - Case Closure Summary Form
 - B - Site Figures
 - C - Ground Water Contour Maps and Tables
 - D - Soil Tables and Boring Well/Logs
 - E - Site History

Attachment A
Case Closure Summary Form

SITE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: 09/29/97

Agency Name: SF Bay Regional Water Quality Control Board	Address: 2101 Webster Street
City/State/Zip: Oakland, CA 94612	Phone: (510) 286-1255
Responsible Staff Person:	Title:

II. SITE INFORMATION

Site Facility Name: Former Chevron Bulk Asphalt Terminal #1001067				
Site Facility Address: Powell Street St. and Landregan Street, Emeryville, CA				
RB/SMS Case No.: 2223.09	Local or LOP Case No.:	Priority:		
URF Filing Date:	SWEEPS No.:			
Responsible Parties (include addresses and phone numbers)				
Chevron Products Company				
P.O. Box 5004				
San Ramon, CA 94583				
(510) 842-9500				
Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
ASTs #9, 3, 5, 10, 11	36,000; NA, 43,600; 10,700; 40,300; 24,000	#9=kerosene, 3,5,10,11= unknown	Removed	10/87
UST # NA	2,185	unknown	Removed (no records)	10/87
At least 4 other ASTs	NA	unknown	Removed	Prior to 1956

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown		
Site characterization complete? Yes	Date Approved By Oversight Agency: NA	
Monitoring wells installed? Yes	Number: 19	Proper screened interval? Yes, except for MW-13
Highest GW Depth Below Ground Surface: 0.74' (3/26/92)	Lowest Depth: 8.04' (11/29/91)	Flow Direction: South to Southeast
Most Sensitive Current Use: Amtrak Train Station		
Most Sensitive Potential Use and Probability of Use: Not Known , TDS = 1250 ppb - high salinity, not potable. No drinking water wells nearby; local water supply is EBMUD		
Are drinking water wells affected? No	Aquifer Name: NA	

Is surface water affected? No	Nearest/Affected SW Name: San Francisco Bay, approximately 2,000 ft west
Off-Site Beneficial Use Impacts (Addresses/Locations): None Known	
Report(s) on file? Yes	Where is report(s) filed? Alameda Department of Environmental Health - Health Care Services Agency

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
AST/UST	6 ASTs, 1 UST, 4 ASTs	Removed & disposed-not known where. 4 ASTs, previously removed, according to site blueprint.	10/87 prior to 1956
Piping	At least 1,500 ft	Removed & disposed- not known where.	10/87
Free Product	NA		
Soil	1989: 10,656 yd ³ , 1990: 500 yd ³ , 1992-93: 15-70 yd ³	1989-90: Excavated/disposed at American Rock & Asphalt Facility, Richmond, CA; 5/92: 15 yd ³ excavated & stockpiled; 2/93: 70 yd ³ disposed at CWM, Inc., Kettleman Hills, CA, ESI, Grandview, ID.	5/89-8/89, 10/90, 5/92- 2/93
Groundwater	None		

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before ¹	After ²	Before ³	After ⁴		Before ¹	After ²	Before ³	After ⁴
TPH (Gas)	7,500	1,200	20,000	430	Xylene	20	3.1	160	<0.5
TPH (Diesel) (Kerosene)	2,700 1,400	3,500 1,400	NA	NA	Ethylbenzene	18	0.68	40	<0.5
Benzene	1.4	0.5	120	0.8	Oil & Grease Total/Petr.	2,300/ 92,000	1,700/ 92,000	<1,000	NA
Toluene	6.1	0.066	82	<0.5	Heavy Metals (Cd, Cr, Pb, Ni, Zn)	4; 37; 880; 70; 400	4; 17; 800; NA; 400	340; 20,000; 150; NA; 5,900	NA
MTBE	NA	NA	34/<5 ⁵	<5.0					
HVOCs									
1,1-dichloro- ethene (1,1-DCE)	ND	ND	12	<0.5	Vinyl chloride	ND	ND	1,800	<0.8
1,2-dichloro- ethene	ND	ND	7,000	<0.5	1,2-dichloro- propane	ND	ND	6	ND
t-1,2-dichloro- ethene	ND	1.7	69	<0.5	Chloro- methane	ND	ND	63	ND

c-1,2-di chloroethene	ND	ND	5,900	85	Methylene chloride	0.025	0.025	0.6	ND
1,1-dichloro- ethane	ND	ND	9.1	9.1	Trichloro- fluoromethane	ND	ND	0.9	ND
1,1,1-tri- chloroethane	ND	ND	16	3.2	t-1,3-dichloro- propane	ND	ND	11	ND
Trichloro- ethane	15	15	280	150	1,2-dichloro- ethane	ND	ND	1.8	ND
Perchloro- ethane	ND	0.007	1,500	830	1,1,2,2-tetra- chloroethane	ND	ND	3	ND
Chloroform	0.022	0.022	4.1	<0.5	1,2-dichloro- benzene	ND	ND	3.1	ND
					Dichloro- methane	ND	ND	6.2	ND
Acetone	0.420	0.15	0.15	NA					
Poly- chlorinated biphenyl	0.06	0.06	NA	NA					

Comments (Depth of Remediation, etc.): Total of approximately 11,150 yd³ soil excavated to 6 ft below ground surface (bgs) in 1989 and 1990.

1 - Soil boring samples, subsequently over-excavated. 2 - Confirmatory excavation samples and soil borings not over-excavated.

3 - Historical maximums. 4 - Latest sampling event, 4/22/97.

5 - Separate analyses by EPA method 8020/8240B. Approximately 15 yd³ soil was excavated to 9 ft bgs under the garage/sump area in May 1992.

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:		
Monitoring Wells Decommissioned: Yes*	Number Decommissioned: 11*	Number Retained: 10*
List Enforcement Actions Taken:		
List Enforcement Actions Rescinded:		

V. TECHNICAL REPORTS, CORRESPONDENCE ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Title:	Date:
Harding Lawson Associates, Environmental Assessment	11/07/88
Groundwater Technology, Inc. (GTI), Subsurface Soil Investigation	12/24/89
Western Geologic Resources (WGR), Soil Sampling Results	02/27/89
WGR, Soils Remediation Report	12/90
WGR, Additional Subsurface Investigation	03/90
WGR, Soil Sampling	04/90
WGR, Additional Soils Excavation	12/20/90
WGR, Soil Sampling	05/17/91; 02/27/91
Geraghty & Miller Inc., Results of the Soil Sampling Activities	06/09/92
Superior Precision Analytical, Inc.	10/07/92
Geraghty & Miller, Inc, Risk Assessment.	07/28/92
WGR, Closure Plan	06/90
Gettler-Ryan, Inc., Semi-Annual Groundwater Monitoring and Sampling Report	05/28/97
WGR, Workplan for Soil Remediation	05/91
Gettler-Ryan, Inc., Well Replacement Report	12/13/95
Geraghty & Miller, Inc., Risk Assessment	07/28/92

VI. ADDITIONAL COMMENTS, DATA, ETC.

PLEASE INCLUDE/ATTACH THE FOLLOWING AS APPROPRIATE:

- 1) SITE MAP INDICATING TANK PIT LOCATION, MONITORING WELL LOCATION, GROUNDWATER GRADIENT, ETC.; AND,
- 2) SITE COMMENTS WORTHY OF NOTICE (E.G., AREA OF RESIDUAL POLLUTION LEFT IN PLACE, DEED NOTICES ETC.)

* Monitoring wells MW-4, MW-5, and MW-6 were destroyed during soil excavation in 1989. Five additional wells (MW-1, MW-3, MW-9, MW-12 and MW-16) cannot be located and are presumed to be destroyed. Two additional wells, MW-2 and MW-19, were abandoned in 1995 and replaced with new wells MW-2A and MW-19A, respectively. Well MW-14 was abandoned in 1993, not replaced.

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file

Attachment B
Site Figures

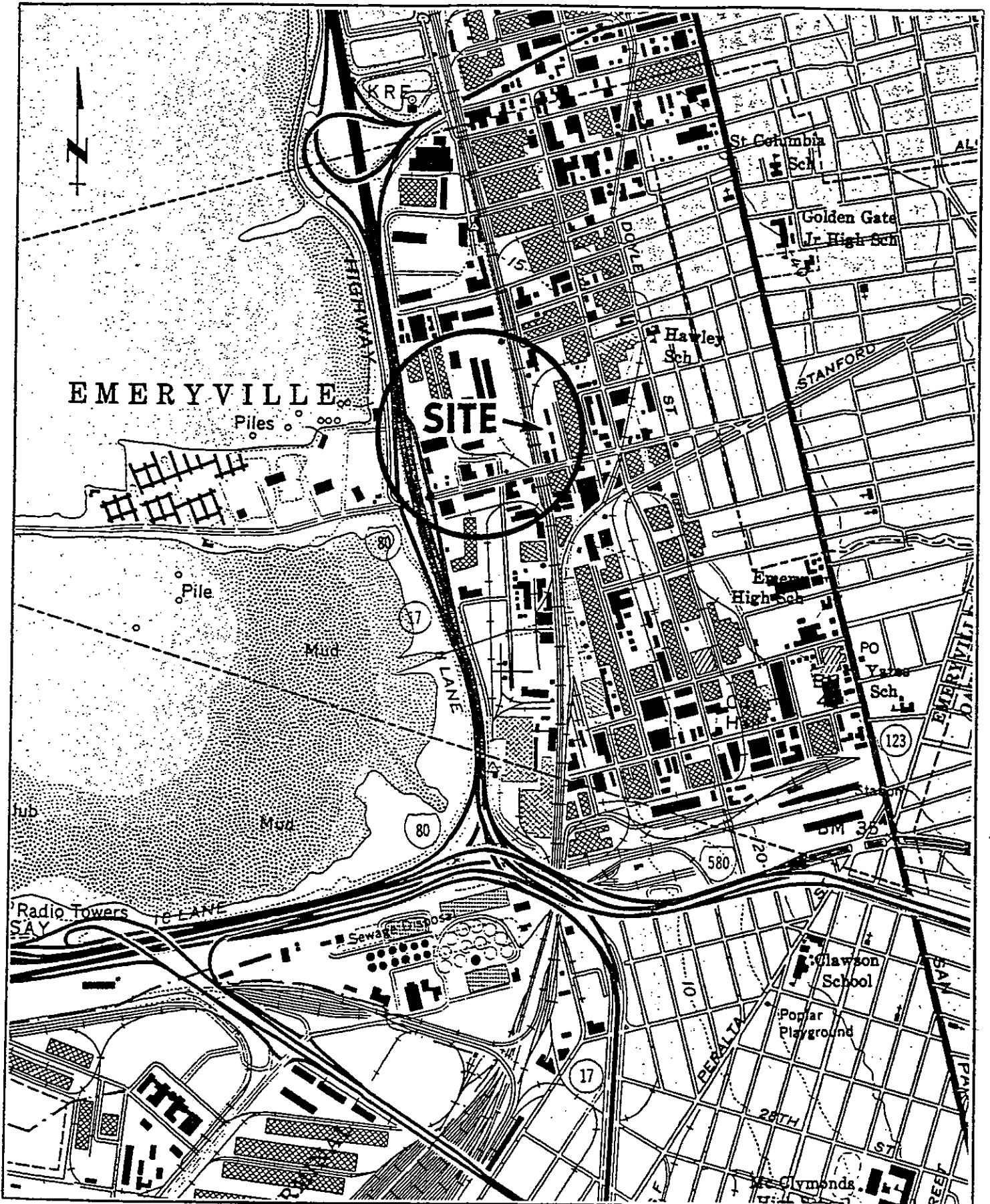
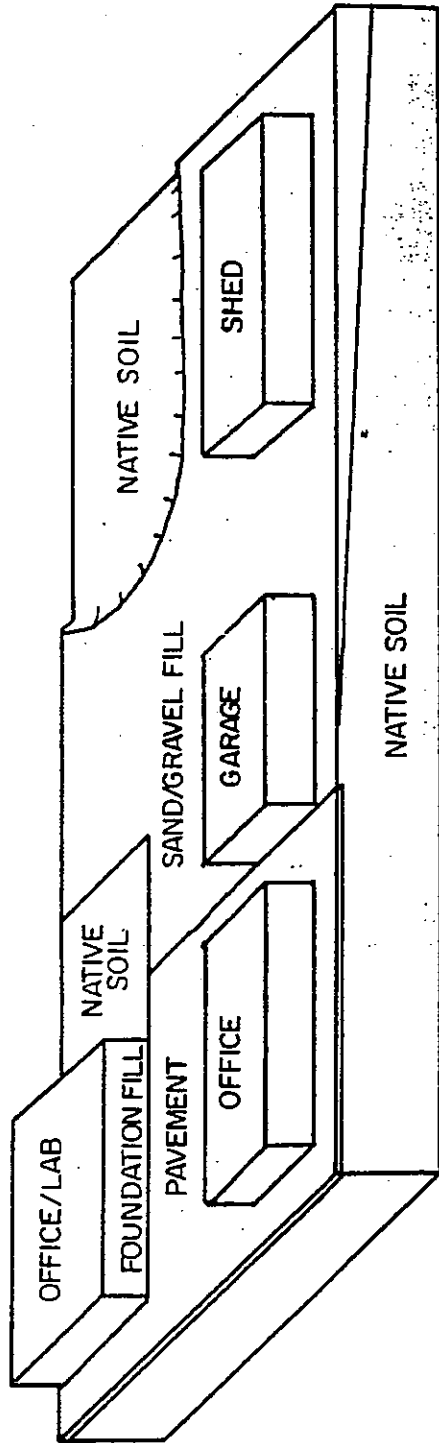


Figure 1. Site Location Map,
Former Chevron Asphalt Plant
1520 Powell Street, Emeryville, California.

-2-



Legend

Native Soil - Moist black clay. High organic content.

Foundation Fill - Dry tan clay (powder-like).

Sand/Gravel Fill - Mixture of light brown sand & gravel.

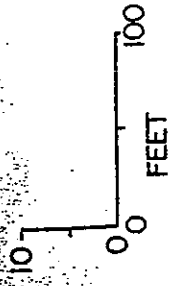


Figure 3. Block Diagram Showing Surface Exposures
And Subsurface Relations of the On-site Soils



Attachment C
Ground Water Tables and Contour Maps

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE' (mas)	Product Thickness ^a (ft)	Analytical Method	TPH(G) <	B	T	E	X	MTBE
ppb											
MW-1 10.67	4/26/85	--	--	--	--	--	99	--	--	6.0	--
	9/11/87	--	--	--	--	--	63	--	--	--	--
	7/7/88	--	--	--	--	<100	55	--	--	--	--
	4/13/89	3.72	6.95	--	--	--	--	--	--	--	--
	4/14/89	--	--	--	8260	<5,000	34	<5.0	<5.0	<10	--
	7/31/89	5.72	4.95	0	8260	7,000	57	1.2	<0.2	1.6	--
	12/8/89	4.80	5.87	0	8015/8020	--	26	0.4	0.9	2.0	--
	3/21/90	4.74	5.93	0	8015/8020	3,500	120	9.0	3.0	3.0	--
	6/19/90	4.75	5.92	0	8015/8020	2,700	100	<0.3	<0.3	7.0	--
	9/20/90	5.07	5.60	--	--	--	--	--	--	--	--
	9/21/90	--	--	--	8015/8020	2,200	120	2.0	2.0	0.79	--
	12/28/90	4.91	5.76	0	8015/8020	720	44	2.0	<0.5	9.0	--
	5/10/91	5.30	5.37	0	8015/8020	530	47	2.0	0.5	8.0	--
	8/8/91	5.85	4.82	0	8015/8020	1,400	37	8.3	3.7	12	--
	11/27/91	5.13	5.54	0	8015/8020	840	16	7.1	4.5	11	--
	1/29/92	4.82	5.85	0	8015/8020	350	18	9.3	3.7	7.7	--
	3/26/92	4.32	6.35	0	8015/8020	420 ¹¹	19	2.2	1.2	4.0	--
7/23/92	5.42	5.25	0	8015/8020	4,000 ¹²	50	82	40	160	--	
10/28/92	5.56	5.11	0	8015/8020	980	36	6.7	3.0	10	--	
5/4/93	6.30	4.37	0	8015/8020	650	9.4	2.4	1.2	4.5	--	
1/5/94 ¹⁰	--	--	--	--	--	--	--	--	--	--	
MW-2/ 13.78	4/26/85	--	--	--	--	--	<10	--	--	--	--
	9/11/87	--	--	--	--	--	--	--	--	--	--
	7/7/88	--	--	--	--	<100	<5.0	--	--	--	--
	4/13/89	2.62	11.16	--	--	--	--	--	--	--	--
	4/14/89*	--	--	--	8260	<100	<0.2	<0.2	<0.2	<0.4	--
	7/31/89	4.63	9.15	0	8260	<100	<0.2	<1.0	<0.2	<0.4	--
	12/8/89	5.98	7.80	0	8015/8020	--	<0.3	<0.3	<0.3	<0.6	--
	3/21/90	5.85	7.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	6/19/90	5.95	7.83	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	9/20/90	6.86	6.92	--	--	--	--	--	--	--	--
	9/21/90	--	--	--	8015/8020	<50	<1.5	<1.5	<1.5	<4.5	--
	12/28/90	6.34	7.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	5/10/91	5.96	7.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	8/8/91	7.66	6.12	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	11/27/91	8.04	5.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	1/29/92	6.01	7.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	3/26/92	6.10	7.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
7/23/92	7.39	6.39	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	--	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (mas)	Product Thickness ² (ft)	Analytical Method	TPH(G) <	ppb				
							B	T	E	X	MTBE
MW-2	10/28/92	7.51	6.27	0	8015/8020	55	1.3	6.9	1.1	5.1	—
	5/4/93*	—	—	—	—	—	—	—	—	—	—
	1/5/94 ¹⁰	—	—	—	—	—	—	—	—	—	—
	10/24/94	Dry	—	—	—	—	—	—	—	—	—
	4/19/95	2.51	11.28 ¹⁴	0.01	—	—	—	—	—	—	—
	11/6/95	Abandoned	—	—	—	—	—	—	—	—	—
MW-2A 12.45	11/6/95	4.51	7.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	4.10	8.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	5.32	7.13	0	8015/8020	60 ¹⁷	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	3.95	8.50	0	8015/8020	<50	0.8	<0.5	<0.5	<0.5	<5.0
	4/26/85	—	—	—	—	—	<10	—	—	—	—
MW-3/ 11.73	9/11/87	—	—	—	—	—	<0.5	—	—	—	—
	7/7/88	—	—	—	—	—	<100	—	—	—	—
	4/13/89	2.34	9.39	—	—	—	—	—	—	—	—
	4/14/89*	—	—	—	—	—	—	—	—	—	—
	7/31/89	4.79	6.94	0	8260	<100	<0.2	<0.2	<0.2	<0.4	—
	12/8/89	3.03	8.70	0	8260	<100	<0.2	<1.0	<0.2	<0.4	—
	3/21/90	2.55	9.18	0	8015/8020	—	<0.3	<0.3	<0.3	<0.6	—
	6/19/90	2.76	8.97	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—
	9/20/90	4.43	7.30	—	—	<50	<0.3	<0.3	<0.3	<0.6	—
	9/21/90	—	—	—	—	<50	<0.3	<0.3	<0.3	<0.6	—
	12/28/90	3.67	8.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—
	5/10/91	2.83	8.90	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—
	8/8/91	5.09	6.64	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—
	11/27/91	5.37	6.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—
	1/29/92	3.46	8.27	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—
3/26/92	2.10	9.63	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
7/23/92	4.60	7.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
10/28/92	5.07	6.66	0	8015/8020	92	1.8	12	2.0	10	—	
5/4/93*	—	—	—	—	—	—	—	—	—	—	
1/5/94 ¹⁰	—	—	—	—	—	—	—	—	—	—	
MW-4	4/26/85	—	—	—	—	—	<10	—	—	—	—
	9/11/87	—	—	—	—	3,100	<0.5	—	—	—	—
	7/7/88	—	—	—	—	<100	<0.5	—	—	—	—
	4/13/89 ¹	2.12	—	—	—	—	<5.0	—	—	—	—
4/14/89 ¹⁴	—	—	—	—	380 ¹⁸	<0.5	<1.0	<1.0	<1.0	—	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) ←	B	T	E	X	MTBE	ppb	
												→	→
MW-5	4/26/85	—	—	—	—	1,600	<100	—	—	—	—	—	—
	9/11/87	—	—	—	—	—	<10	—	—	—	—	—	—
	7/7/88	—	—	—	—	<100	<5.0	—	—	—	—	—	—
	4/13/89 ¹	2.79	—	—	—	—	—	—	—	—	—	—	—
	4/14/89 ^{4*}	—	—	—	8260	4,300 ³	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-6	4/26/85	—	—	—	—	580	<100	—	—	—	—	—	—
	9/11/87	—	—	—	—	—	<10	—	—	—	—	—	—
	7/7/88	—	—	—	—	8,000	<5.0	—	—	—	—	—	—
	4/13/89 ¹	1.90	—	—	—	—	—	—	—	—	—	—	—
	4/14/89 ^{4*}	—	—	—	8260	3,300 ³	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MW-7/ 10.47	4/26/85	—	—	—	—	700	ND	—	—	—	—	—	—
	9/11/87	—	—	—	—	—	<10	—	—	—	—	—	—
	7/7/88	—	—	—	—	17,000	<5.0	—	—	—	—	—	—
	4/13/89	1.90	8.57	—	—	—	—	—	—	—	—	—	—
	4/14/89 ^{4*}	—	—	—	—	—	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/31/89	4.24	6.23	—	8260	<50	<0.5	<1.0	<0.3	<0.6	<0.3	<0.6	<0.3
	7/31/89	—	—	—	8260	160 ^u	<0.1	<0.5	<0.1	<0.2	<0.1	<0.2	<0.1
	12/8/89	2.65	7.82	0	8260	100 ^u	<0.1	<0.5	<0.1	<0.2	<0.1	<0.2	<0.1
	3/21/90	2.76	7.71	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	6/19/90	3.24	7.23	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	9/20/90	4.57	5.90	—	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	9/21/90	—	—	—	—	—	—	—	—	—	—	—	—
	12/28/90	3.12	7.35	0	8015/8020	<50	1.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	5/10/91	3.53	6.94	0	8015/8020	<50	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
8/8/91	4.64	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
11/27/91	3.66	6.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1/29/92	3.24	7.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
3/26/92	2.61	7.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
7/23/92	4.19	6.28	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
10/28/92	4.39	6.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
	5/4/93 ⁶	—	—	—	—	—	—	—	—	—	—	—	—
	1/5/94 ¹⁰	—	—	—	—	—	—	—	—	—	—	—	—
	5/13/94	4.41	6.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	10/24/94	5.03	5.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4/19/95	4.53	5.94	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11/6/95	5.11	5.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4/26/96	4.40	6.07	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <	ppb				
							B	T	E	X	MTBE
MW-7 (cont)	10/10/96	5.02	5.45	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	4.54	5.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-8/ 10.46	4/26/85										
	9/11/87										
	7/7/88					20,000					
	4/13/89	2.80	7.66								
	4/14/89*										
	7/31/89	5.70	4.76	0	8260	<50	<1.0	<1.0	<1.0	<1.0	<3,000
	12/8/89	4.13	6.33	0	8260	<50	<0.5	<0.1	<0.1	<0.2	
	3/21/90	4.07	6.39	0	8015/8020		<0.3	<0.3	<0.3	<0.6	
	6/19/90	4.25	6.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	
	9/20/90	4.99	5.47	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	
	9/21/90										
	12/28/90	4.39	6.07		8015/8020	<50	<0.3	<0.3	<0.3	<0.6	
	5/10/91	4.13	6.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	8/8/91	5.53	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	11/27/91	4.59	5.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	1/29/92	5.30	5.16	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	3/26/92	3.59	6.87	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	
7/23/92	5.06	5.40	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
10/28/92 ³											
5/4/93*											
1/5/94*											
5/13/94	5.59	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
10/24/94 ¹											
4/19/95 ⁴											
11/6/95	Inaccessible										
4/26/96	Inaccessible										
10/10/96	Inaccessible										
4/22/97	5.79	4.67	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-9	4/26/85										
	9/11/87										
	7/7/88					400					
5/10/91 ⁵											
MW-10/ 10.82	7/7/88										
	4/14/89*				8260	<50	<5.0	<1.0	<1.0	<1.0	



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	ppb					
						TPH(G)	B	T	E	X	MTBE
MW-10 (cont)	7/31/89	--	--	--	8260	<50	<0.1	<0.5	<0.1	<0.2	--
	12/8/89	--	--	--	8015/8020	--	<0.3	<0.3	<0.3	<0.6	--
	3/21/90	4.60	6.22	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	6/19/90	4.89	5.93	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	9/20/90	5.77	5.05	--	--	--	--	--	--	--	--
	9/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	12/28/90	4.99	5.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	5/10/91	5.80	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	8/8/91	5.86	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	11/27/91	5.39	5.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	1/29/92	5.44	5.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	3/26/92	4.96	5.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	7/23/92	5.80	5.02	0	8015/8020	<50	<0.5	1.8	0.5	1.9	--
	10/28/92	6.06	4.76	0	8015/8020	<50	0.6	0.7	<0.5	1.2	--
	5/4/93*	--	--	--	--	--	--	--	--	--	--
	1/5/94	5.92	4.90	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	--
	5/13/94	5.09	5.73	0	8015/8020	140	<0.5	<0.5	<0.5	1.3	--
	10/24/94	6.24	4.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	4/19/95	5.26	5.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	11/6/95	6.25	4.57	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	4/26/96	Inaccessible	--	--	--	--	--	--	--	--	--
	10/10/96	6.10	4.72	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	34/ND ¹⁶
	4/22/97	5.50	5.32	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-11/ 11.38	7/7/88	--	--	--	--	--	--	--	--	--	--
	4/14/89	--	--	--	8260	<50	<5.0	<1.0	<1.0	<1.0	<3,000
	7/31/89	--	--	--	8260	<100	<0.2	<0.2	<0.2	<0.2	--
	12/8/89	--	--	--	8015/8020	--	<0.3	<0.3	<0.3	<0.6	--
	3/21/90	4.82	6.56	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	6/19/90	5.14	6.24	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	9/20/90	6.11	5.27	--	--	--	--	--	--	--	--
	9/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--
	12/28/90	5.16	6.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	5/10/91	7.83	3.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	8/8/91	6.32	5.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	11/27/91	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	1/29/92	5.83	5.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	3/26/92	4.09	7.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	7/23/92	6.19	5.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--
	10/28/92	6.51	4.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	ppb									
						TPH(G)	B	T	E	X	MTBE				
MW-11 (cont)	5/4/93 ^a	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/5/94 ^a	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/13/94	5.67	5.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	10/24/94	6.79	4.59	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4/19/95	5.69	5.69	0	8015/8020	58 ^u	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5
	11/6/95	Inaccessible	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--
	4/26/96	Inaccessible	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--
	10/10/96	Inaccessible	Inaccessible	--	--	--	--	--	--	--	--	--	--	--	--
	4/22/97	5.94	5.44	0	8015/8020	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	7/7/88	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12/ 13.03	4/14/89 ^a	--	--	--	--	<100	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	7/31/89	--	--	--	--	<100	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.2	<0.5
	12/8/89	--	--	--	--	--	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.6	<0.3
	3/21/90	6.76	6.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	6/19/90	6.62	6.41	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	9/20/90	5.00	8.03	--	--	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	9/21/90	--	--	--	--	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	12/28/90	6.62	6.41	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
	5/10/91	6.48	6.55	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	8/8/91	8.01	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	11/27/91	7.95	5.08	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1/29/92	7.68	5.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3/26/92	6.60	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
7/23/92 ^a	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13/ 11.15	3/21/90	4.08	7.07	0	8015/8020	480	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	5.0	<0.5
	6/19/90	4.34	6.81	0	8015/8020	180	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	3.0	<0.5
	9/20/90	5.31	5.84	0	8015/8020	150	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.54	<0.5
	12/28/90	4.79	6.36	0	8015/8020	160	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5
	5/10/91	4.20	6.95	0	8015/8020	110	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5
	8/8/91	5.13	6.02	0	8015/8020	220 ^a	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5
	11/27/91	4.72	6.43	0	8015/8020	70	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5
	1/29/92	4.69	6.46	0	8015/8020	150	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.1	<0.5
	3/26/92	4.04	7.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	7/23/92	5.12	6.03	0	8015/8020	190	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.1	<0.5
	10/28/92	5.30	5.85	0	8015/8020	190	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.0	<0.5
	5/4/93 ^a	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/5/94 ^a	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE' (msl)	Product Thickness ² (ft)	Analytical Method	ppb						
						TPH(G)	B	T	E	X	MTBE	
MW-13 (cont)	5/13/94	5.28	5.87	0	8015/8020	220	<0.5	1.2	<0.5	1.7	—	—
	10/24/94	6.04	5.11	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	4/19/95	5.37	5.78	0	8015/8020	140 ^u	<0.5	<0.5	<0.5	1.2	—	—
	11/6/95	6.13	5.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0
	4/26/96	5.22	5.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	Inaccessible	—	—	—	—	—	—	—	—	—	—
4/22/97	5.46	5.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-14/ 9.78	3/21/90	0.91	8.87	0	8015/8020	170	<0.3	<0.3	<0.4	2.0	—	—
	6/19/90	1.03	8.75	0	8015/8020	77	<0.3	<0.3	<0.3	<0.6	—	—
	9/20/90	2.53	7.25	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	12/28/90	1.61	8.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/10/91	1.22	8.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	8/8/91	2.45	7.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	11/27/91	2.59	7.19	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	1/29/92	1.10	8.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	3/26/92	0.74	9.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	7/23/92	2.30	7.48	0	8015/8020	<50	0.6	<0.5	<0.5	0.8	—	—
	10/28/92	2.76	7.02	0	8015/8020	56	0.7	4.0	0.8	3.8	—	—
	5/4/93 ^a	Abandoned	—	—	—	—	—	—	—	—	—	—
MW-15/ 11.01	3/21/90	4.72	6.29	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	6/19/90	4.78	6.23	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	9/20/90	4.98	6.03	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	12/28/90	4.84	6.17	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/10/91	4.58	6.43	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	8/8/91	5.03	5.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	11/27/91	5.88	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	1/29/92	4.82	6.19	0	8015/8020	<50	1.9	2.6	0.8	2.6	—	—
	3/26/92	4.35	6.66	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	7/23/92	5.04	5.97	0	8015/8020	<50	<0.5	<0.5	<0.5	0.5	—	—
	10/28/92	5.17	5.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/4/93 ^a	—	—	—	—	—	—	—	—	—	—	—
	1/5/94 ^b	—	—	—	—	—	—	—	—	—	—	—
	5/13/94	4.50	6.51	0	8015/8020	110	<0.5	0.7	<0.5	2.0	—	—
10/24/94	5.17	5.84	0	8015/8020	<50	2.3	1.1	<0.5	<0.5	—	—	
4/19/95	4.77	6.24	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—	
11/6/95	5.28	5.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	
4/26/96	4.60	6.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	TPH(G) <	ppb					
							B	T	E	X	MTBE	
MW-15 (cont)	10/10/96	5.22	5.79	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	4/22/97	4.85	6.16	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
MW-16/ 11.11	3/21/90	5.84	5.27	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	6/19/90	5.90	5.21	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	9/20/90	6.36	4.75	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	12/28/90	5.98	5.13	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/10/91	5.89	5.22	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	8/8/91	6.28	4.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	11/27/91	5.62	5.49	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	1/29/92	5.88	5.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	3/26/92	5.56	5.55	0	8015/8020	65	3.6	6.2	1.9	6.6	—	—
	7/23/92	6.29	4.82	0	8015/8020	270 ³	21	27	9.5	41	—	—
	10/28/92	6.29	4.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/4/93	5.75	4.82	0	8015/8020	<50	0.9	1.4	<0.5	1.1	—	—
	1/5/94 ¹⁰	—	5.36	—	—	51	<0.5	1.0	0.6	1.7	—	—
MW-17/ 10.41	3/21/90	5.61	4.80	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	6/19/90	—	—	—	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	9/20/90	6.02	4.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	—
	12/28/90	5.73	4.68	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/10/91	5.65	4.76	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	8/8/91	5.94	4.47	0	8015/8020	82	1.9	2.5	0.9	5.4	—	—
	11/27/91	6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	1/29/92	5.61	4.80	0	8015/8020	<50	<0.5	0.9	<0.5	0.5	—	—
	3/26/92	5.31	5.10	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	7/23/92	5.97	4.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	10/28/92	5.96	4.45	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	5/4/93	7.53	2.88	0	8015/8020	78	1.0	7.1	1.4	6.5	—	—
	1/5/94	5.50	4.91	0	8015/8020	60	0.8	1.7	1.1	3.0	—	—
	5/13/94	5.17	5.24	0	8015/8020	<50	<0.5	0.7	<0.5	<0.5	—	—
	10/24/94	6.08	4.33	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	4/19/95	5.48	4.93	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
	11/6/95	6.00	4.41	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—
4/26/96	5.45	4.96	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—	
10/10/96	5.72	4.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	—	
4/22/97	5.38	5.03	0	8015/020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<5.0	

Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (ft) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	ppb						
						TPH(G)	B	T	E	X	MTBE	
MW-18/ 9.80	3/21/90	5.15	4.65	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	6/19/90	5.19	4.61	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	9/20/90	5.54	4.26	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	12/28/90	5.26	4.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	5/10/91	5.18	4.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	8/8/91	5.45	4.35	0	8015/8020	52	<0.5	<0.5	<0.5	<0.5	—	
	11/27/91	5.24	4.56	0	8015/8020	<50	0.6	1.5	0.6	2.1	—	
	1/29/92	5.12	4.68	0	8015/8020	67	3.7	5.2	1.5	5.0	—	
	3/26/92	4.84	4.96	0	8015/8020	80 ³	<0.5	<0.5	<0.5	0.8	—	
	7/23/92	5.49	4.31	0	8015/8020	50 ³	1.3	2.1	0.5	3.0	—	
	10/28/92	5.47	4.33	0	8015/8020	54	<0.5	1.3	<0.5	1.1	—	
	5/4/93	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	—	
	1/5/94	5.05	4.75	0	8015/8020	<50	<0.5	0.5	<0.5	0.6	—	
	5/13/94	4.76	5.04	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	10/24/94	5.65	4.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	4/19/95	5.10	4.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	11/6/95	5.57	4.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/26/96	5.07	4.73	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/10/96 ¹⁰	—	—	—	—	—	—	—	—	—	—	
	4/22/97	5.03	4.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
MW-19/ 8.45	3/21/90	5.00	3.45	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	6/19/90	5.06	3.39	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	9/20/90	5.25	3.20	0	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	—	
	12/28/90	5.07	3.38	0	8015/8020	66	<0.5	<0.5	<0.5	<0.5	—	
	5/10/91	5.02	3.43	0	8015/8020	60 ⁴	<0.5	<0.5	<0.5	<0.5	—	
	8/8/91	5.17	3.28	0	8015/8020	58	<0.5	<0.5	<0.5	<0.5	—	
	11/27/91	5.06	3.39	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	1/29/92	4.93	3.52	0	8015/8020	<50	1.7	2.6	0.7	2.1	—	
	3/26/92	4.79	3.66	0	8015/8020	80 ³	<0.5	<0.5	<0.5	<0.5	—	
	7/23/92	5.22	3.23	0	8015/8020	70 ³	0.6	0.5	<0.5	1.5	—	
	10/28/92	5.16	3.29	0	8015/8020	170	4.3	28	5.1	24	—	
	5/4/93	4.93	3.52	0	8015/8020	120	2.0	4.7	2.8	8.1	—	
	1/5/94	4.91	3.54	0	8015/8020	<50	2.0	1.4	1.7	2.5	—	
	5/13/94	4.18	4.27	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	—	
	10/24/94	4.85	3.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	—	
	4/19/95	4.20	4.25	0	8015/8020	270 ⁵	<0.5	<0.5	<0.5	<0.5	—	
	11/6/95	—	—	—	—	—	—	—	—	—	—	

Abandoned



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California
(continued)

Well ID/ TOC (B) ¹	Date	DTW (ft)	GWE ¹ (msl)	Product Thickness ² (ft)	Analytical Method	ppb						
						TPH(G)	B	T	E	X	MTBE	
MW-19A 9.96	11/6/95	4.85	5.11	0	8015/8020	420	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	4/26/96	4.18	5.78	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/96	4.56	5.40	0	8015/8020	610 ¹⁷	<0.5	<0.5	<0.5	<0.5	<0.5	21
	4/22/97	4.17	5.79	0	8015/8020	430 ¹⁷	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0
Trip Blank	4/14/89	--	--	--	8260	<50	<0.5	<1.0	<1.0	<1.0	--	--
AA	7/31/89	--	--	--	8260	<50	<0.1	<0.5	<0.5	<0.2	--	--
	12/8/89	--	--	--	8015/8020	--	<0.3	<0.3	<0.3	<0.6	--	--
	3/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	--
	3/26/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	--
	6/19/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	--
	9/21/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	--
	12/28/90	--	--	--	8015/8020	<50	<0.3	<0.3	<0.3	<0.6	--	--
	5/10/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.6	--	--
	8/8/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	11/27/91	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/29/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	3/26/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	7/23/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	10/28/92	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	5/4/93	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	1/5/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<1.5	--	--
	5/13/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	10/24/94	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/19/95	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	11/6/95	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	--
	4/26/96	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	10/10/96	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
	4/22/97	--	--	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	--	<5.0
TB-LB						<50	<0.5	<0.5	<0.5	<0.5		<5.0



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE				1,1,1-TCA				PCE	TCE	VC	Other HVOCs
				1,1-DCE	1,2-DCE	t-1,2-DCE	e-1,2-DCE	1,1-DCA	1,1,1-TCA	CF	VC				
MW-1	4/14/89	CCAS	8010	<5.0	—	19	720	<5.0	11	<5.0	<20	340	ND ¹		
	7/31/89	CCAS	8010	6.8	—	54	2,600	7.2	57	<1.0	<1.0	760	ND ²		
	12/8/89	GTEL	8010	4.3	2,700	—	—	1.4	59	<0.5	<0.5	520	—		
	3/21/90	GTEL	8010	7.1	7,000	—	—	1.1	130	<0.5	<0.5	1,100	—		
	6/19/90	GTEL	8010	12	6,100	—	—	<0.5	81	<0.5	<0.5	1,200	—		
	9/21/90	GTEL	8010	1.8	2,400	—	—	1.7	60	<0.5	<0.5	1,100	ND ¹		
	12/28/90	SAL	8010	2.0	—	28	1,500	0.6	15	<0.5	<0.5	510	ND ⁴		
	5/10/91	SAL	8010	10	—	69	5,500	<0.5	280	<0.5	<0.5	1,800	ND ⁵		
	8/8/91	SAL	8010	2.9	—	45	2,300	1.5	110	<0.5	<0.5	<1.0	ND ⁵		
	11/27/91	SPA	8010	<25	—	<25	5,900	<25	<25	<25	<25	540	ND ²⁰		
	1/29/92	SPA	8010	<25	—	26	1,900	<25	<25	<25	<25	320	ND ²⁰		
	3/26/92	SPA	8010	<50	—	<50	1,500	<50	<50	<50	<50	260	ND ²¹		
	7/23/92	SPA	8010	<50	—	<50	2,300	<50	<50	<50	<50	170	ND ²¹		
	10/28/92	SPA	8010	4.2	—	30	1,600	3.6	16	<0.5	<0.5	810	ND		
	5/4/93	SPA	8010	1.0	—	16	670	0.5	9.2	<0.5	<0.5	110	ND ¹⁶		
	1/5/94 ²⁴	—	—	—	—	—	—	—	—	—	—	—	—	—	
	5/13/94 ²⁷	—	—	—	—	—	—	—	—	—	—	—	—	—	
	MW-2	4/14/89	CCAS	8010	<0.2	<0.2	—	—	<0.2	<0.2	<0.2	<1.0	<0.2	—	
		7/31/89	CCAS	8010	<0.2	<0.2	—	—	0.5	<0.2	<0.2	<1.0	<0.2	—	
		12/8/89	GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<1.0	—	
3/21/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<1.0	—		
6/19/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<1.0	—		
9/21/90		GTEL	8010	<0.2	<0.5	—	—	<0.5	<0.5	<0.5	<0.5	<1.0	—		
12/28/90		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—		
5/10/91		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
8/8/91		SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
11/27/91		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
1/29/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
3/26/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
7/23/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND		
10/28/92		SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸		
5/4/93 ²⁴	—	—	—	—	—	—	—	—	—	—	—	ND			
1/5/94 ²⁴	—	—	—	—	—	—	—	—	—	—	—	—			
5/13/94 ²⁷	—	—	—	—	—	—	—	—	—	—	—	—			
10/24/94 ²⁸	—	—	—	—	—	—	—	—	—	—	—	—			
11/6/95	Abandoned	—	—	—	—	—	—	—	—	—	—	—	—		
MW-2A	11/6/95	GTEL	8010	<1.0	—	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND		
	4/26/96	GTEL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND ²⁴		
	10/10/96	GTEL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	ND		
	4/22/97	GTEL	8010	<2.5	—	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<4.0	ND		



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	1,1-DCE	1,1,1-DCE	1,1,2-DCE	1,1,2-DCE	1,1-DCE	1,1,1-DCE	TCE	PCE	CF	VC	Other HVOCS
MW-10 (cont)	11/27/91	SPA	8010	<0.5	6.8	100	<0.5	<0.5	8.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<0.5	9.1	30	2.8	<0.5	7.4	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	0.7	9.2	29	2.5	<0.5	6.8	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	6.1	21	1.5	<0.5	4.7	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	4.3	16	2.1	<0.5	4.1	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93 ^M	---	---	---	---	---	---	---	---	---	---	---	---	---
	1/5/94	SPA	8010	<0.5	1.3	5.2	0.5	1.0	0.8	<0.5	<0.5	<0.5	<1.0	ND ¹⁸
	5/13/94	SPA	8010	<0.5	12	31	2.7	<0.5	4.8	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/24/94 ¹¹	SPA	8010	<10	13	44	<10	<10	<10	<10	<10	<10	<10	ND ^{18,11}
	4/19/95	SPA	8010	0.7	14	36	<0.5	<0.5	9.2	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	11/6/95	GTEL	8010	1.0	19	41	1.4	<1.0	14	<1.0	<1.0	<1.0	<1.0	ND
	4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---
	10/10/96	GTEL	8010	0.7	17	38	0.8	<0.5	14	<0.5	<0.5	<0.5	<0.8	ND
	4/22/97	GTEL	8010	<0.5	12	27	0.5	<0.5	13	<0.5	<0.5	<0.5	<0.8	ND
MW-11	4/14/89	CCAS	8010	<1.0	120	---	<1.0	<1.0	4.0	<1.0	<2.0	<2.0	10	---
	7/31/89	CCAS	8010	0.9	40	110	2.2	1.4	2.9	<0.2	<0.2	<0.2	<0.2	ND
	12/8/89	GTEL	8010	0.5	120	---	2.1	1.2	4.1	<0.5	<0.5	<0.5	2.4	---
	3/21/90	GTEL	8010	1.3	150	---	1.2	1.7	3.5	<0.5	<0.5	<0.5	4.3	ND ¹⁰
	6/19/90	GTEL	8010	0.068	140	---	1.3	<0.5	5.0	<0.5	<0.5	<0.5	1.0	---
	9/21/90	GTEL	8010	<0.2	100	---	1.1	<0.5	3.8	<0.5	<0.5	<0.5	<1.0	---
	12/28/90	SAL	8010	<0.5	23	43	0.9	0.7	3.0	<0.5	<0.5	<0.5	<1.0	---
	5/10/91	SAL	8010	0.9	44	110	0.5	<0.5	5.0	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	29	77	0.9	<0.5	2.4	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	34	240	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	1/29/92	SPA	8010	<5.0	33	91	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	ND
	3/26/92	SPA	8010	<2.5	21	51	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	ND
	7/23/92	SPA	8010	<0.5	18	46	0.6	<0.5	1.4	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	0.5	36	80	<0.5	<0.5	4.6	<0.5	<0.5	<0.5	<1.0	ND
5/4/93 ^M	---	---	---	---	---	---	---	---	---	---	---	---	---	
1/5/94 ^M	---	---	---	---	---	---	---	---	---	---	---	---	---	
5/13/94	SPA	8010	<0.5	62	82	<0.5	<0.5	7.9	<0.5	<0.5	<0.5	1.7	ND ¹⁸	
10/24/94 ¹¹	SPA	8010	<10	28	75	<10	<10	<10	<10	<10	<10	<10	ND ^{18,11}	
4/19/95	SPA	8010	<0.5	18	39	<0.5	<0.5	6.5	<0.5	<0.5	1.0	<0.5	ND ^M	
11/6/95	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	
4/26/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	
10/10/96	Inaccessible	---	---	---	---	---	---	---	---	---	---	---	---	
4/22/97	GTEL	8010	<0.5	4.7	12	<0.5	<0.5	3.0	<0.5	<0.5	<0.5	<0.8	ND	
MW-12	4/14/89	CCAS	8010	<1.0	1.0	---	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	---
	7/31/89	CCAS	8010	<0.1	1.7	---	<0.1	<0.1	0.8	<0.1	<0.1	<0.5	<0.1	ND



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	ppb											Other HVOC's				
				1,1-DCE	1,2-DCE	1,1,2-DCE	c-1,2-DCB	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC						
MW-14 (cont)	7/23/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁴	
	10/28/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	5/4/93 ²¹	Abandoned																	
MW-15	3/21/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	6/19/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	9/20/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	12/28/90	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	5/10/91	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁵	
	8/8/91	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	11/27/91	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	1/29/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	3/26/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	7/23/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	10/28/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁶	
	5/4/93 ²¹																	ND	
	1/5/94 ²¹																		
	5/13/94	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁰
	10/24/94	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ²⁰
4/19/95	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸	
11/6/95	GTEL	8010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.8	ND	
4/26/96	GTEL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	ND ¹⁸	
10/10/96	GTEL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	ND	
4/22/97	GTEL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	ND	
MW-16	3/21/90	GTEL	8010	<0.2	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	6/19/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	9/20/90	GTEL	8010	<0.2	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0		
	12/28/90	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁵	
	5/10/91	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	8/8/91	SAL	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	11/27/91	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ¹⁵	
	1/29/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	3/26/92	SPA	8010	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<1.7	ND ¹⁹	
	7/23/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND ¹⁸
	10/28/92	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	5/4/93	SPA	8010	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	
	1/5/94 ²¹																<1	ND ¹⁸	
	5/13/94 ²¹																		



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	ppb											Other HVOCs
				1,1-DCE	1,2-DCE	1,1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC			
MW-17	3/21/90	GTEL	8010	<0.2	5.2	—	—	—	0.7	1.3	32	11	1.1	<1.0	—
	6/19/90	GTEL	8010	<0.2	3.1	—	—	<0.5	1.0	38	13	1.2	<1.0	—	
	9/20/90	GTEL	8010	<0.2	2.4	—	—	<0.5	1.4	44	16	2.8	<1.0	—	
	12/28/90	SAL	8010	<0.5	—	<0.5	2.0	<0.5	0.6	34	15	2.0	<1.0	—	
	5/10/91	SAL	8010	<0.5	—	<0.5	3.0	<0.5	0.6	37	14	1.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	—	<0.5	2.5	<0.5	<0.5	69	15	0.9	<1.0	ND	
	1/29/92	SPA	8010	<0.5	—	<0.5	13	<0.5	<0.5	59	14	2.4	<1.0	ND	
	1/29/92	SPA	8010	<0.5	—	<0.5	2.9	<0.5	0.8	35	15	1.1	<1.0	ND	
	3/26/92	SPA	8010	<0.5	—	<0.5	1.5	<0.5	0.7	41	12	0.6	<1.0	ND	
	7/23/92	SPA	8010	<0.5	—	<0.5	1.1	<0.5	<0.5	31	14	0.8	<0.5	ND ¹⁶	
	10/28/92	SPA	8010	<0.5	—	<0.5	1.6	<0.5	<0.5	42	11	0.8	<1.0	ND ¹⁶	
	5/4/93	SPA	8010	<0.5	—	<0.5	1.1	<0.5	<0.5	26	12	0.6	<1.0	ND ¹⁶	
	1/5/94	SPA	8010	<0.5	—	<0.5	1.1	<0.5	<0.5	25	13	0.8	<1.0	ND ¹⁶	
	5/13/94	SPA	8010	<0.5	—	<0.5	1.0	<0.5	0.6	23	13	<0.5	<0.5	ND ²⁸	
	10/24/94	SPA	8010	<0.5	—	<0.5	1.4	<0.5	<0.5	26	13	<0.5	<0.5	ND ²⁸	
	4/19/95	SPA	8010	<0.5	—	<0.5	0.9	<0.5	1.1	21	12	1.2	<0.5	ND ¹⁶	
	11/6/95	GTEL	8010	<1.0	—	<1.0	1.1	<1.0	<1.0	29	13	<1.0	<1.0	ND	
	4/26/96	GTEL	8010	<0.5	—	<0.5	0.8	<0.5	1.2	24	11	0.6	<0.8	ND ¹⁶	
	10/10/96	GTEL	8010	<0.5	—	<0.5	1.5	<0.5	0.9	31	15	0.6	<0.8	ND	
4/22/97	GTEL	8010	<0.5	—	<0.5	1.2	<0.5	1.7	21	11	<0.5	<0.8	ND		
MW-18	3/21/90	GTEL	8010	<0.2	1.7	—	—	<0.5	2.4	33	20	0.9	<1.0	—	
	6/19/90	GTEL	8010	<0.2	2.7	—	—	<0.5	0.9	63	20	0.73	<1.0	—	
	9/20/90	GTEL	8010	<0.2	3.3	—	—	<0.5	1.6	76	25	1.7	<1.0	—	
	12/28/90	SAL	8010	<0.5	—	<0.5	2.0	<0.5	0.8	44	21	1.0	<1.0	—	
	5/10/91	SAL	8010	<0.5	—	<0.5	2.0	<0.5	0.7	47	20	2.0	<1.0	ND	
	8/8/91	SAL	8010	<0.5	—	<0.5	2.0	<0.5	0.7	32	25	1.0	<1.0	ND	
	11/27/91	SPA	8010	<0.5	—	<0.5	3.6	<0.5	0.5	60	18	1.5	<1.0	ND	
	1/29/92	SPA	8010	<5.0	—	<5.0	<5.0	<5.0	<5.0	67	17	<5.0	<1.0	ND	
	3/26/92	SPA	8010	<1.2	—	<1.2	6.4	<1.2	<1.2	130	19	1.7	<2.5	ND ¹⁶	
	7/23/92	SPA	8010	<0.5	—	<0.5	3.0	<0.5	0.5	67	19	0.8	<0.5	ND ¹⁶	
	10/28/92	SPA	8010	<0.5	—	<0.5	1.1	<0.5	<0.5	52	14	0.8	<1.0	ND ¹⁶	
	5/4/93	SPA	8010	<0.5	—	<0.5	1.9	<0.5	0.7	48	18	2.5	<1.0	ND ¹⁶	
	1/5/94	SPA	8010	<0.5	—	<0.5	4.0	<0.5	0.8	94	17	1.0	<1.0	ND ¹⁶	
	5/13/94	SPA	8010	<0.5	—	<0.5	0.8	<0.5	0.8	16	15	0.8	<0.5	ND ²⁸	
	10/27/94	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	22	15	1.2	<0.5	ND ²⁸	
	4/19/95	SPA	8010	<1.0	—	<1.0	2.2	<0.5	1.3	46	14	1.1	<0.5	ND ²⁸	
	11/6/95	GTEL	8010	<1.0	—	<1.0	1.8	<1.0	1.2	45	18	<1.0	<1.0	ND	
	4/26/96	GTEL	8010	<0.5	—	<0.5	2.8	<0.5	3.0	31	17	0.6	<0.8	ND ¹⁶	
	10/10/96 ²⁷	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4/22/97	GTEL	8010	<0.5	—	<0.5	1.7	<0.5	3.2	26	15	<0.5	<0.8	ND		



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	ppb												Other HVOCs
				1,1-DCE	1,2-DCE	1,1,2-DCE	1,1-DCE	1,1,1-TCA	TCE	PCE	CF	VC				
MW-19	3/21/90	GTEL	8010	<0.2	10	<0.5	2.5	41	53	3.2	<1.0	—	—	—	—	—
	6/19/90	GTEL	8010	<0.2	13	<0.5	1.5	46	47	2.8	<1.0	—	—	—	—	—
	9/20/90	GTEL	8010	<0.2	5.8	<0.5	2.5	39	32	3.1	<1.0	—	—	—	—	—
	12/28/90	SAL	8010	<0.5	—	<0.5	1.0	40	44	3.0	<1.0	—	—	—	—	—
	5/10/91	SAL	8010	<0.5	—	<0.5	1.0	47	47	3.0	<1.0	—	—	—	—	—
	8/8/91	SAL	8010	<0.5	—	<0.5	1.1	41	35	2.8	<1.0	—	—	—	—	—
	11/27/91	SPA	8010	<0.5	—	<0.5	0.9	59	31	2.7	<1.0	—	—	—	—	—
	1/29/92	SPA	8010	<0.5	—	<0.5	<5.0	51	44	3.0	<1.0	—	—	—	—	—
	3/26/92	SPA	8010	<1.2	—	<1.2	1.5	68	130	1.4	<2.5	—	—	—	—	—
	7/23/92	SPA	8010	1.1	—	<0.5	1.0	61	38	3.3	<0.5	—	—	—	—	—
	10/28/92	SPA	8010	<0.5	—	<0.5	1.1	46	24	2.2	<1.0	—	—	—	—	—
	5/4/93	SPA	8010	<0.5	—	8.7	0.5	69	32	3.9	<1.0	—	—	—	—	—
	1/5/94	SPA	8010	<0.5	—	1.7	1.1	49	46	<0.5	<1.0	—	—	—	—	—
	5/13/94	SPA	8010	<0.5	—	22	0.7	40	58	<0.5	<0.5	—	—	—	—	—
	10/24/94 ¹¹	SPA	8010	<0.5	—	54	<5.0	98	300	<5.0	<5.0	—	—	—	—	—
	4/19/95	SPA	8010	<0.5	—	65	<0.5	130	670	<0.5	<0.5	—	—	—	—	—
	11/6/95	Abandoned	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MW-19A	11/6/95	GTEL	8010	1.0	<1.0	<1.0	<1.0	160	1,500	<1.0	<1.0	—	—	—	—	—
	4/26/96	GTEL	8010	<5.0	<5.0	<5.0	<5.0	200	990	<5.0	<8.0	—	—	—	—	—
	10/10/96	GTEL	8010	<10	<10	<10	<10	150	1,500	<10	<16	—	—	—	—	—
	4/22/97	GTEL	8010	<5.0	7.1	9.1	<5.0	150	830	<5.0	<8.0	—	—	—	—	—
Trip Blank AA	4/14/89	CCAS	8010	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	—	—	—	—	—
	7/31/89	CCAS	8010	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	—	—	—	—	—
	12/8/89	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	3/21/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	3/26/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	6/19/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	9/21/90	GTEL	8010	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	12/28/90	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	5/10/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	8/8/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	11/27/91	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	1/29/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	3/26/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
	7/23/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—
10/28/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—	
5/4/93	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—	
11/6/95	GTEL	8010	<1.0	—	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	—	—	—	—	—	



Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

Well ID	Date Sampled	Analytical Lab	Analytical Method	ppb										Other HVOCs								
				1,1-DCE	1,2-DCE	t-1,2-DCE	c-1,2-DCE	1,1-DCA	1,1,1-TCA	TCE	PCE	CF	VC									
Bailer Blank																						
BB	5/10/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	8/8/91	SAL	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	11/27/91	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ⁶
	1/29/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	3/26/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	7/23/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND ⁸
	10/28/92	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND
	5/4/93	SPA	8010	<0.5	—	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	ND ⁸

Table 2. Analytical Results for Groundwater - Halogenated Volatile Organic Compounds - Former Chevron Asphalt Plant & Terminal #1001067, Emeryville, California (continued)

EXPLANATION:	NOTES: (continued)
1,1-DCE = 1,1-Dichloroethene	4 0.9 ppb trans-1,3-dichloropropane detected; other HVOCs not detected; sample contained 810 ppb total dissolved solids.
1,2-DCE = 1,2-Dichloroethene	5 11 ppb trichlorofluoromethane and 1 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
1,1,2-DCE = trans-1,2-Dichloroethene	6 11 ppb trans-1,3-dichloropropane detected; other HVOCs not detected.
c-1,2-DCE = cis-1,2-Dichloroethene	7 Monitoring well was destroyed during excavation in 1989.
1,1-DCA = 1,1-Dichloroethane	8 0.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
1,1,1-TCA = 1,1,1-Trichloroethane	9 Well MW-9 was not sampled after 5/10/91 because it could not be located. Previous analytic data were not available for inclusion in this report.
TCE = Trichloroethene	10 1.8 ppb 1,2-dichloroethane detected; other HVOCs not detected
PCE = Tetrachloroethene	11 3 ppb 1,1,2,2-tetrachloroethane detected; other HVOCs not detected.
CF = Chloroform	12 0.9 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
VC = Vinyl Chloride	13 0.5 ppb 1,2-dichloroethane detected; other HVOCs not detected.
Other HVOCs = Other Halogenated Volatile Organic Compounds	14 3.1 ppb 1,2-dichlorobenzene detected; other HVOCs not detected.
ppb = Parts per billion	15 0.9 ppb 1,2-dichloroethane detected; other HVOCs not detected.
-- = Not analyzed/not applicable	16 Trace concentrations of trihalomethane compounds detected in bailer blank.
ND = Not detected at detection limits of 0.5 to 1 ppb	17 1,1,2,2-Tetrachloroethane detected at 1.8 ppb; other HVOCs not detected at detection limits of 1.2 to 2.5 ppb.
D = Duplicate analysis	18 Other HVOCs not detected at detection limit of 0.5 ppb.
ANALYTICAL METHOD:	19 Other HVOCs not detected at detection limits ranging from 0.8 to 1.7 ppb.
VOC = EPA Method 8010 for Volatile Organic Compounds	20 Other HVOCs not detected at detection limits of 25 ppb.
ANALYTICAL LABORATORIES:	21 Well MW-12 could not be located after building demolition.
CCAS = Coast Analytical Services of San Luis Obispo, California.	22 Well MW-8 was obstructed, therefore ground water samples could not be taken.
GTEL = Groundwater Technologies Environmental Laboratory of Concord, California	23 Monitoring well obstructed due to on-site construction activities.
SAL = Superior Analytical Laboratory of Martinez and San Francisco, California	24 Monitoring well abandoned on March 10, 1993 by Soils Exploration Services of Benicia, California.
SPA = Superior Precision Analytical, Inc. of Martinez and San Francisco, California	25 Dichloromethane detected at 6.2 ppb; other HVOCs not detected at detection limits of 0.5 ppb.
NOTES:	26 Well paved over as a result of on-site construction activities.
Analytical results prior to April 19, 1995, were compiled from the quarterly groundwater monitoring reports prepared for Chevron by Sierra Environmental Services.	27 Well obstructed.
6 ppb 1,2-dichloropropane detected; other HVOCs not detected.	28 Other HVOCs not detected at detection limits of 0.5 to 1.0 ppb.
0.6 ppb 1,2-dichloroethane detected; other HVOCs not detected.	29 Well was dry.
63 ppb chloromethane and 0.6 ppb methylene chloride detected; other HVOCs not detected; sample contained 1,250 ppb total dissolved solids.	30 Other HVOCs not detected at detection limits of 10 to 20 ppb.
	31 Other HVOCs not detected at detection limits of 50 to 100 ppb.
	32 Detection limits raised due to sample dilution.
	33 Chloromethane was detected at 2.4 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.
	34 Chloromethane was detected at 0.6 ppb. Other HVOCs not detected at detection limits of 0.5 ppb.
	35 Other HVOC's not detected at detection limits of 0.5 to 5.0.
	36 Other HVOC's not detected at detection limits of 5.0 to 50.

Table 2. Analytic Results: Groundwater
Former Chevron Asphalt Plant
Emeryville, California
MGR Project #1-045.45

Well Sample #	Date	Benzene	Toluene	E-Benzene	Xylenes	TPPH(G)	C&G	Total Cadmium	Total Chromium	Total Lead	Total Zinc
		ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb
MW-13	21 Mar 90	<0.3	<0.3	1	5	480	1	<50	<100	<5	<100
MW-14	22 Mar 90	<0.3	<0.3	0.4	2	170	<1	<50	<100	5	<100
MW-15	21 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	<1	<50	<100	<5	<100
MW-16	26 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	<1	<50	6600	45	540
MW-17	26 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	1	56	7900	150	1020
MW-18	26 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	<1	340	20,000	140	5900
MW-19	26 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	<1	<50	1600	30	420
TB	21 Mar 90	<0.3	<0.3	<0.3	<0.6	<50					
TB	26 Mar 90	<0.3	<0.3	<0.3	<0.6	<50	<1				

*from report
1/20/90*

TABLE 2. Analytic Results: Groundwater (continued)
Former Chevron Asphalt Plant
Emeryville, California
WGR Project #1-045.45

Well ID#	Date Sampled	1,2-DCE	1,1-DCA	Chloroform	1,2-DCA	1,1,1-TCA	TCE	PCE
MW-13	21 Mar 90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-14	22 Mar 90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-15	21 Mar 90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-16	26 Mar 90	0.8	<0.5	2.0	1.0	<0.5	27	8
MW-17	26 Mar 90	5.2	0.7	1.1	0.6	1.3	32	11
MW-18	26 Mar 90	1.7	<0.5	0.9	<0.5	2.4	33	20
MW-19	26 Mar 90	10	<0.5	3.2	<0.5	2.5	41	53
TB	21 Mar 90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TB	26 Mar 90	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5

NOTES:

- ppb = Parts-Per-Billion
- ppm = Parts-Per-Million
- E-Benzene = Ethylbenzene
- TPPH(G) = Total Purgeable Petroleum Hydrocarbons characterized as gasoline
- O&G = Oil and Grease
- 1,2-DCE = trans-1,2-Dichloroethene
- 1,1-DCA = 1,1-Dichloroethane
- 1,2-DCA = 1,2-Dichloroethane
- 1,1,1-TCA = 1,1,1-Trichloroethane
- TCE = Trichloroethene
- PCE = Tetrachloroethene

Table 4. Selected 1520 Powell Street Ground-Water Analytical Results¹

Harding Lawson Associates

Sample Locations

Compound	Sample Locations											
	Detection Limit (ppb)	MW-1 (ppb)	MW-4 (ppb)	MW-5 (ppb)	MW-6 (ppb)	MW-10 (ppb)	MW-11 (ppb)	MW-12 (ppb)				
<u>Volatile Organics in water:</u> (EPA Method 624)												
Benzene	5	55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-dichloroethene	5	1050	ND	ND	ND	21	180	Trace	Trace	ND	ND	ND
Trichloroethene	5	45	ND	ND	ND	5	Trace	ND	ND	ND	ND	ND
Vinyl Chloride	5	560	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<u>Metals:</u> (Title 22 Metals in Aqueous Solution)												
Barium	10	640	-	-	-	-	-	-	-	-	-	-
Molybdenum	10	30	-	-	-	-	-	-	-	-	-	-
Nickel	20	30	-	-	-	-	-	-	-	-	-	-
Zinc	20	40	-	-	-	-	-	-	-	-	-	-
<u>Total Petroleum Hydrocarbons:</u> (EPA Method 3510/8015)												
Gasoline	100	400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Other ²	100	ND	2000	1700	600	ND	ND	ND	ND	ND	ND	ND

1 Analytes and sampling locations presented only where detectable levels were present.
 2 Quantifications based on largest peaks within C11 to C15 boiling range.

ND Not detected above detection limit
 - Not analyzed
 ppb Parts per billion (g/l for water and g/kg for soil)

**Table 1. Summary of Volatile Organics Analytical
Results for Well MW-1
1520 Powell Street
Emeryville, California**

	Sampled by McKesson Environmental 4/26/85 ($\mu\text{g}/\text{l}$)	Sampled by Blaine Technical Services 9/11/87 ($\mu\text{g}/\text{l}$)	Sampled by HLA 7/7/88 ($\mu\text{g}/\text{l}$)
Benzene	99	63	55
Chlorobenzene	20	ND(10)	ND(5)
1,1-dichloroethene	3	ND(10)	ND(5)
Trans-1,2- dichloroethene	1,200	700	1,050
Trichloroethene	160	ND(10)	45
Vinyl chloride	1,500	990	560

ND = Not Detected

Detection Limit expressed as $\mu\text{g}/\text{l}$ in parenthesis.

Table 3-4. Summary of Volatile Organic Compounds Detected in Monitoring Well MW-1, Former Chevron Asphalt Plant, Emeryville, California.

	Sampled by McKesson Environmental 4/26/85 ($\mu\text{g/L}$)	Sampled by Blaine Technical Services 9/11/87 ($\mu\text{g/L}$)	Sampled by HLA 7/7/88 ($\mu\text{g/L}$)	Sampled by Sierra 4/17/92 ($\mu\text{g/L}$)
Benzene	99	63	55	19
Chlorobenzene	20	ND	ND	ND
1,1-Dichloroethene	3	ND	ND	ND
trans-1,2-Dichloroethene	1,200	700	1,050	26
Trichloroethene	160	ND	45	ND
Vinyl chloride	1,500	990	560	260

ND Not detected.

$\mu\text{g/L}$ Micrograms per Liter.

Table 3-3. Maximum Off-Site Ground-Water Concentrations, Former Chevron Asphalt Plant, Emeryville, California.

Constituent	Concentration (mg/L)	Monitoring Well
Benzene	0.021	MW-16
Chloroform	0.003	MW-19
cis-1,2-Dichloroethene	0.023	MW-19
trans-1,2-Dichloroethene	0.0017	MW-19
Ethylbenzene	0.0095	MW-16
Tetrachloroethene	0.13	MW-19
Toluene	0.027	MW-16
TPH as gasoline	0.27	MW-16
1,1,1-Trichloroethane	0.0015	MW-19
Trichloroethene	0.13	MW-18
Xylenes	0.041	MW-17

mg/L Milligrams per liter.
 TPH Total petroleum hydrocarbons.

Table 3-2. Maximum On-Site Ground-Water Concentrations, Former Chevron Asphalt Plant, Emeryville, California.

Constituent	Concentration (mg/L)	Monitoring Well
Benzene	0.019	MW-1
1,1-Dichloroethane	0.0028	MW-10
1,1-Dichloroethene	0.0007	MW-10
cis-1,2-Dichloroethene	1.9	MW-1
trans-1,2-Dichloroethene	0.033	MW-11
Ethylbenzene	0.0012	MW-1
Toluene	0.0026	MW-15
TPH as gasoline	0.42	MW-1
Trichloroethene	0.0074	MW-1
Vinyl chloride	0.26	MW-1
Xylenes	0.004	MW-1

mg/L Milligrams per liter.
 TPH Total petroleum hydrocarbons.

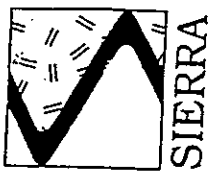
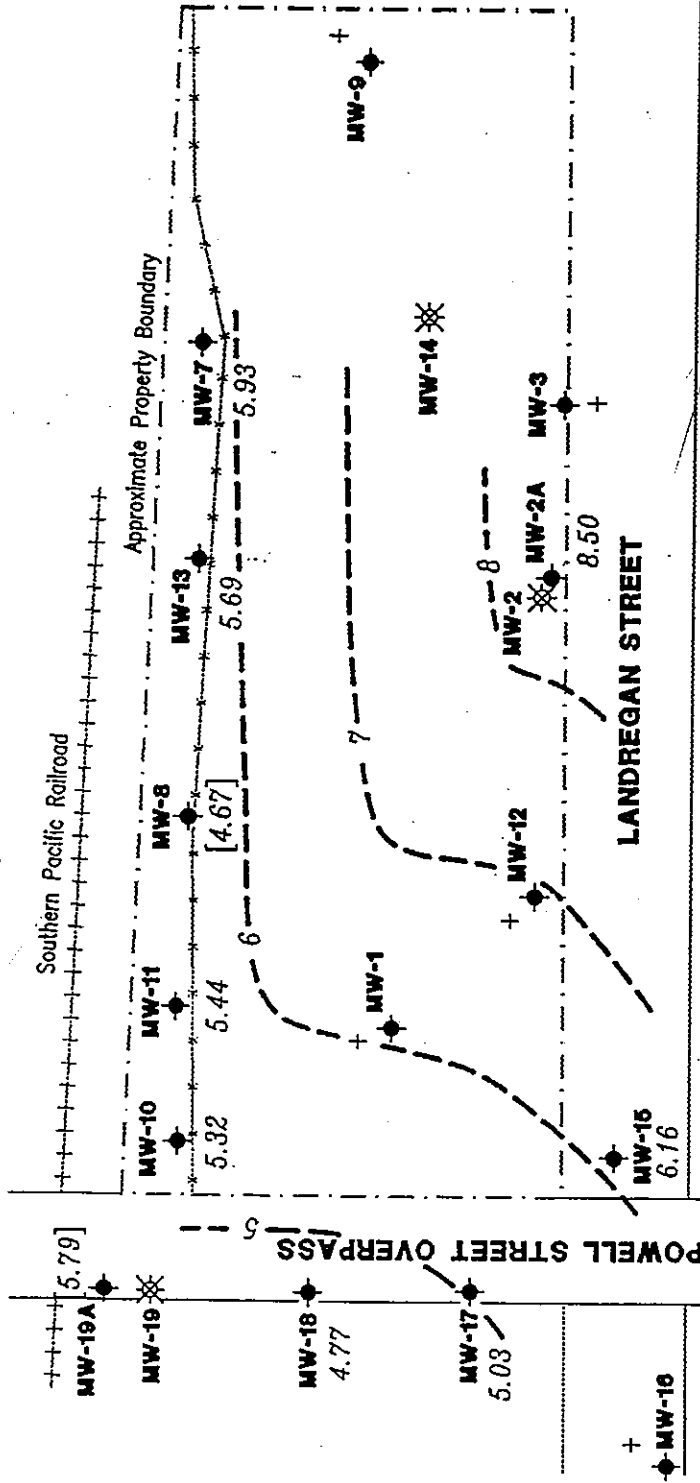


Table 1. Water Level Data and Well Construction Details - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

Well ID	Date Measured	DTW (ft)	TOC ¹ (ft)	GWE (msl)	Product Thickness ² (ft)	Screen Interval ³	Sand Pack Interval ³	Bentonite/Grout Interval ³
MW-1	4/13/89	3.72	10.67	6.95	---	1.5 - 11.5	1 - 12	0 - 1
	7/31/89	5.72	10.67	4.95	---			
	12/8/89	4.80	10.67	5.87	---			
	3/21/90	4.74	10.67	5.93	---			
	6/19/90	4.75	10.67	5.92	---			
	9/20/90	5.07	10.67	5.60	---			
	12/28/90	4.91	10.67	5.76	---			
	5/10/91	5.30	10.67	5.37	0			
MW-2	4/13/89	2.62	13.78	11.16	---	2 - 12	1 - 12	0 - 1
	7/31/89	4.63	13.78	9.15	---			
	12/8/89	5.98	13.78	7.80	---			
	3/21/90	5.85	13.78	7.93	---			
	6/19/90	5.95	13.78	7.83	---			
	9/20/90	6.86	13.78	6.92	---			
	12/28/90	6.34	13.78	7.44	---			
	5/10/91	5.96	13.78	7.82	0			
MW-3	4/13/89	2.34	11.73	9.39	---	2 - 12	1 - 12	0 - 1
	7/31/89	4.79	99.50 ¹	---	---			
	12/8/89	3.03	99.50 ¹	---	---			
	3/21/90	2.55	11.73	9.18	---			
	6/19/90	2.76	11.73	8.97	---			
	9/20/90	4.43	11.73	7.30	---			
	12/28/90	3.67	11.73	8.06	---			
	5/10/91	2.83	11.73	8.90	0			
MW-4 ⁴	4/13/89	2.12	99.86	---	---	2 - 12	1 - 12	0 - 1
MW-5 ⁴	4/13/89	2.79	98.53	---	---	2 - 12	1 - 12	0 - 1
MW-6 ⁴	4/13/89	1.90	99.03	---	---	2 - 12	1 - 12	0 - 1

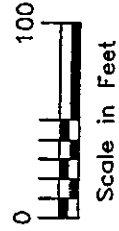


EXPLANATION:

- ◆ Groundwater monitoring well
- ⊗ Abandoned groundwater monitoring well
- + Well not located

- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 Groundwater elevation contour, dashed where inferred.
- [99.99] Not used in contouring

Approximate groundwater flow direction at a gradient of 0.01 to 0.02 Ft./Ft.



Gottler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568 (510) 551-7555

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JOB NUMBER
5161

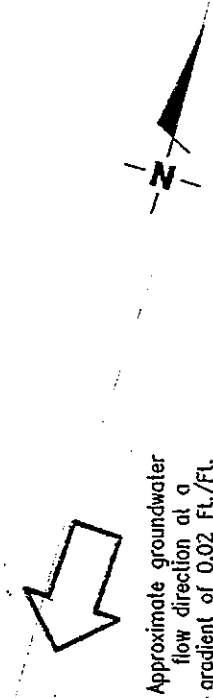
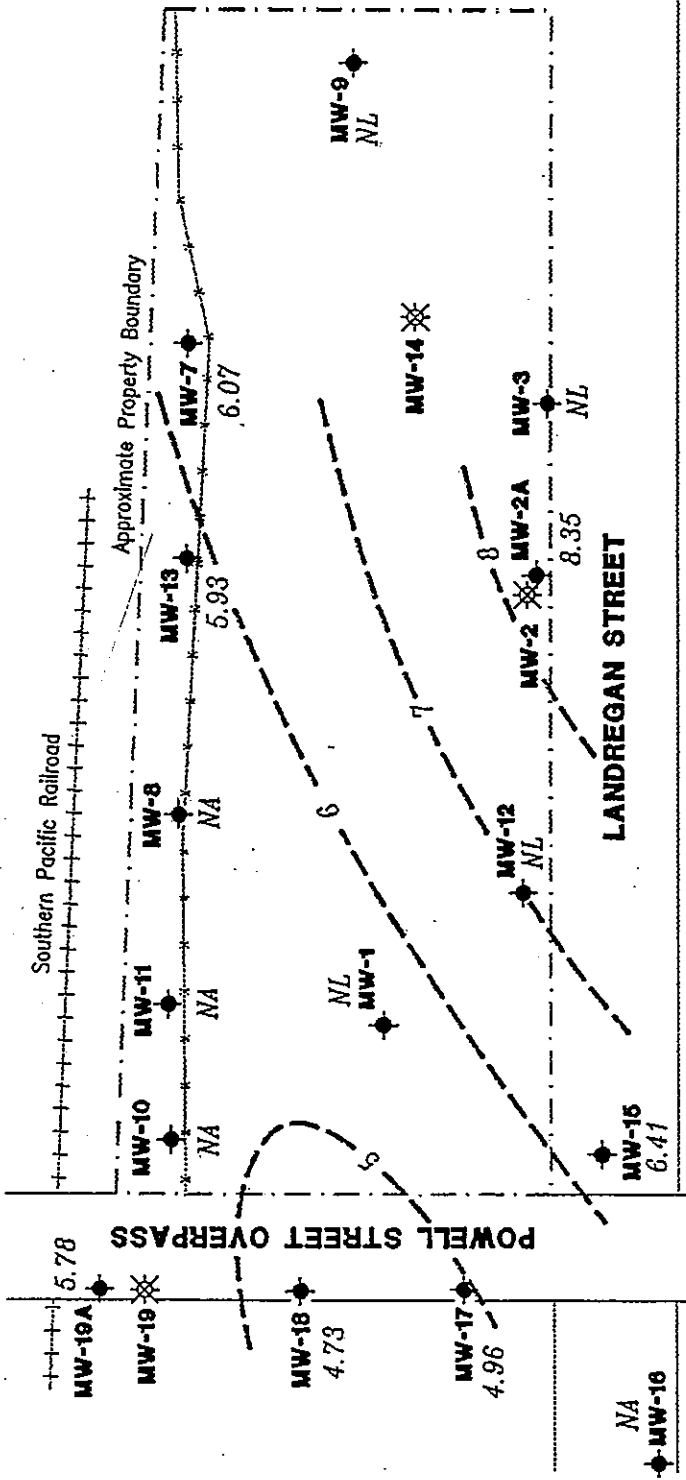
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REVISED DATE

POTENTIOMETRIC MAP
Former Chevron Asphalt Plant
and Terminal No. 1001067
Emeryville, California

FIGURE

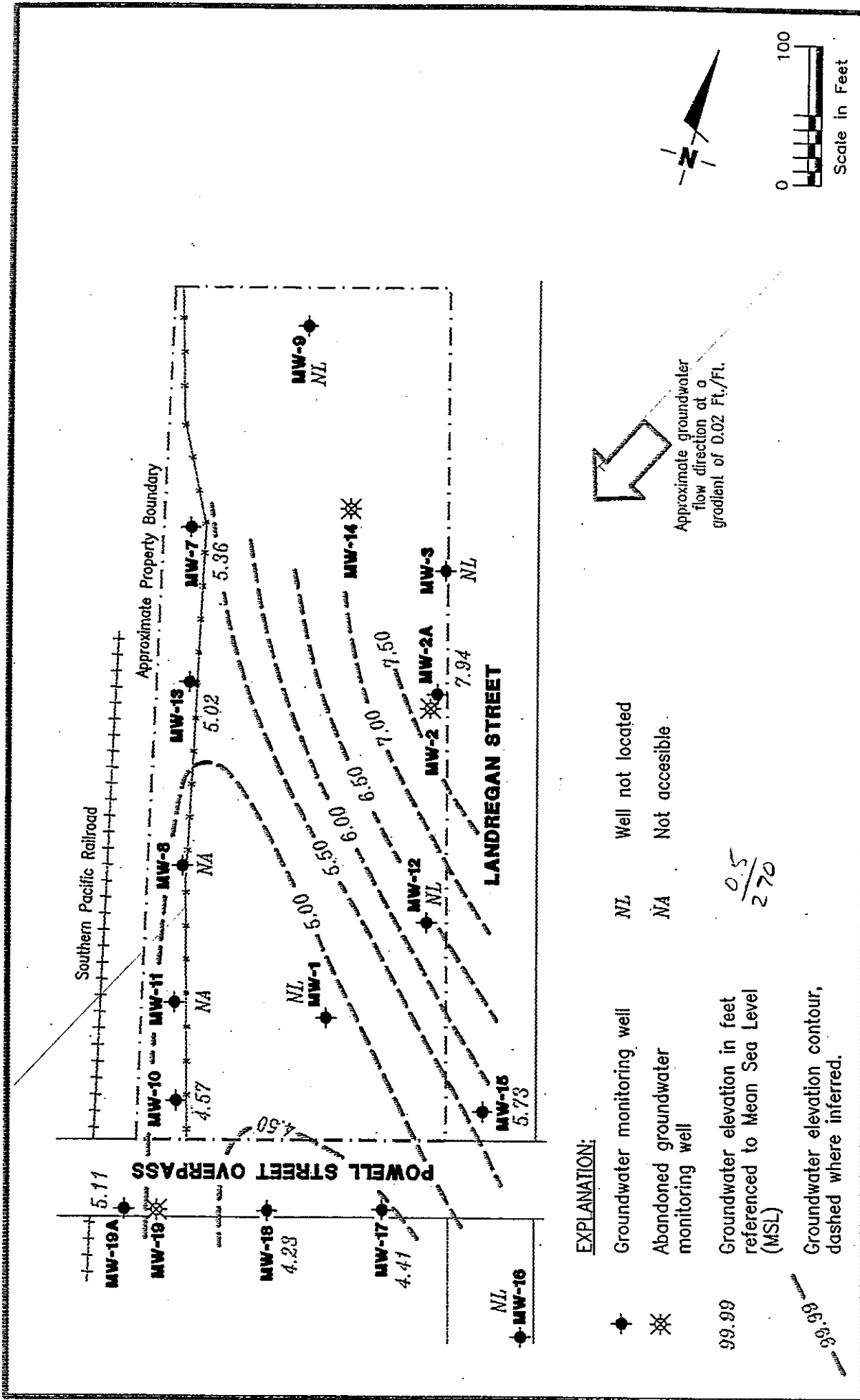
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- EXPLANATION:**
- ◆ Groundwater monitoring well
 - ◆ NL Well not located
 - ✱ Abandoned groundwater monitoring well
 - ✱ NA Not accessible
 - 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
 - - - Groundwater elevation contour, dashed where inferred.

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POTENTIOMETRIC MAP
 Former Chevron Asphalt Plant
 and Terminal No. 1001067
 Emeryville, California



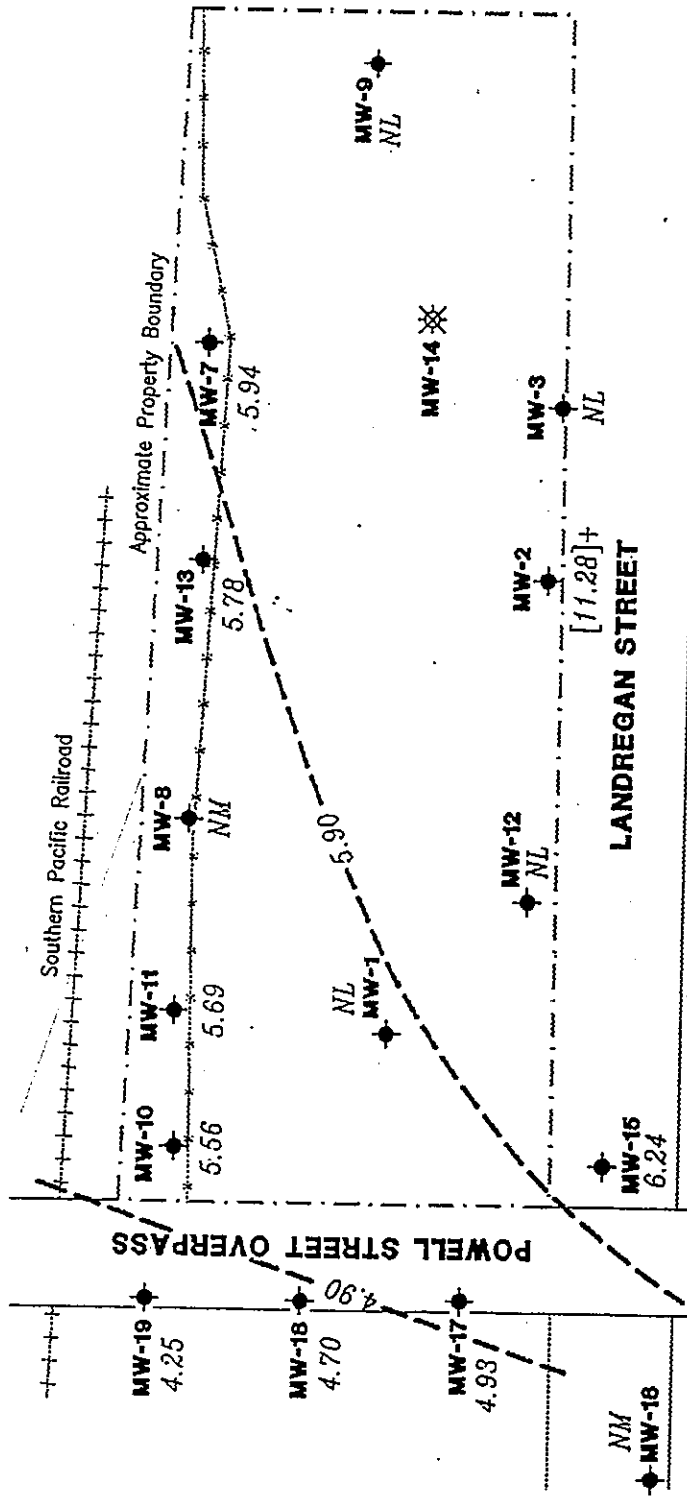
EXPLANATION:

- ◆ Groundwater monitoring well
- ◆ NL Well not located
- ⊗ Abandoned groundwater monitoring well
- ⊗ NA Not accessible
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 $\frac{0.5}{270}$ Groundwater elevation contour, dashed where inferred.

FIGURE 2

POTENTIOMETRIC MAP
 Former Chevron Asphalt Plant
 and Terminal No. 1001067
 Emeryville, California

Gottler - Ryan Inc.
 6747 Sierra Ct., Suite J (510) 551-7555
 Dublin, CA 94568



EXPLANATION:

- ◆ Groundwater monitoring well
- ✱ Abandoned groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 Groundwater elevation contour, dashed where inferred.
- NL Well not located
- NM Not measured
- + Groundwater elevation corrected for presence of separate phase hydrocarbons
- [99.99] Not used in contouring

Gottler - Ryan Inc.
 6747 Sierra Ct., Suite J (510) 551-7555
 Dublin, CA 94568

POTENTIOMETRIC MAP
 Former Chevron Asphalt Plant
 and Terminal No. 1001067
 Emeryville, California

REVISION BY

DATE
 April 19, 1995

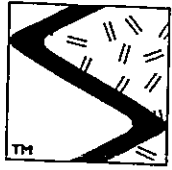
REVISED DATE



JOB NUMBER
 5161.85

FIGURE

1



SIERRA

EXPLANATION

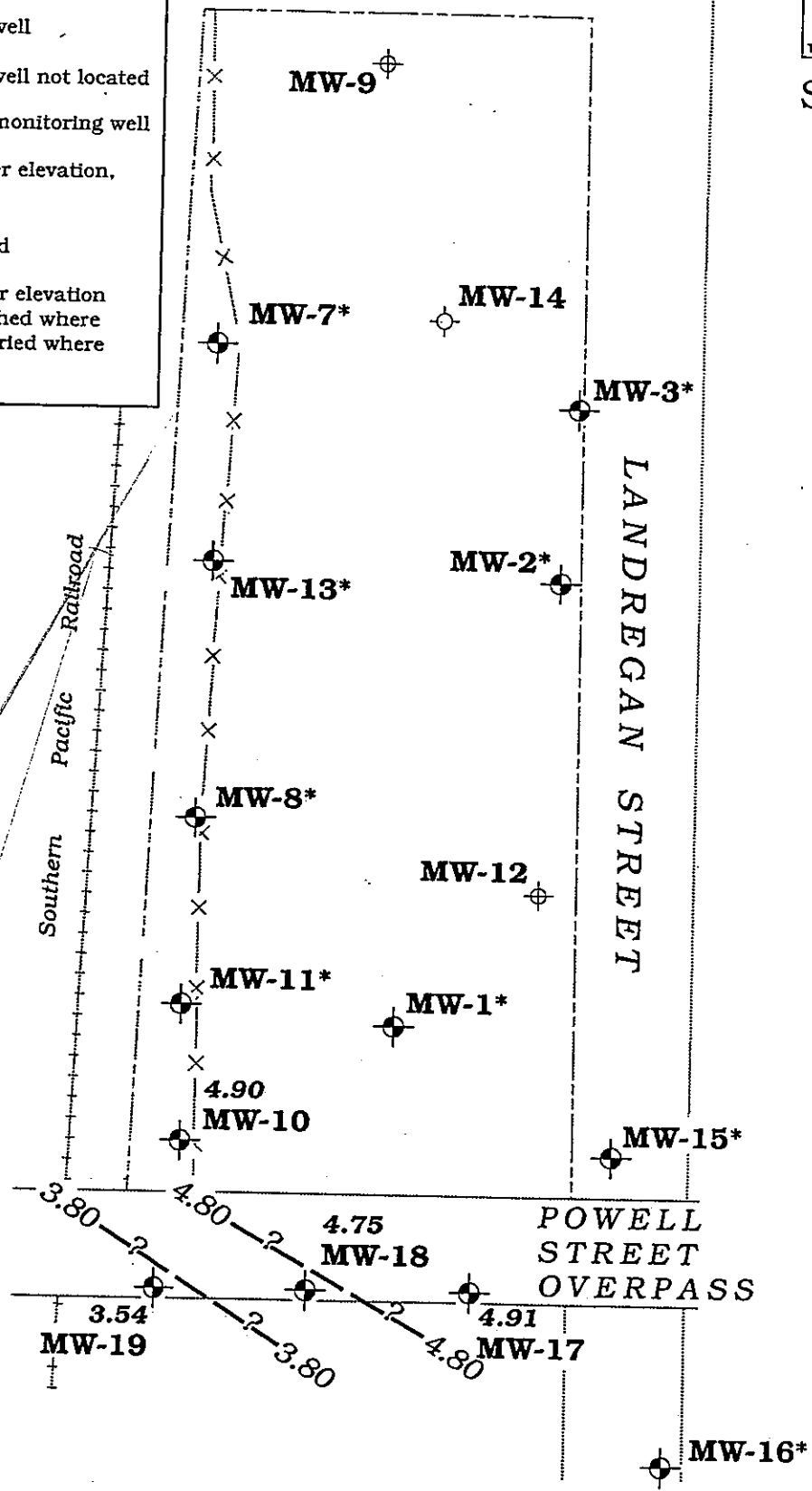
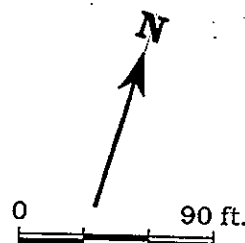
- MW-19** Monitoring well
- MW-12** Monitoring well not located
- MW-14** Abandoned monitoring well
- 4.91** Ground water elevation, in feet
- *** Not measured
- 4.80** Ground water elevation contour, dashed where inferred, queried where uncertain

0.024
Approximate ground water flow direction

Southern Pacific Railroad

LANDREGAN STREET

POWELL STREET OVERPASS



Base map after Western Geologic Resources, Inc.

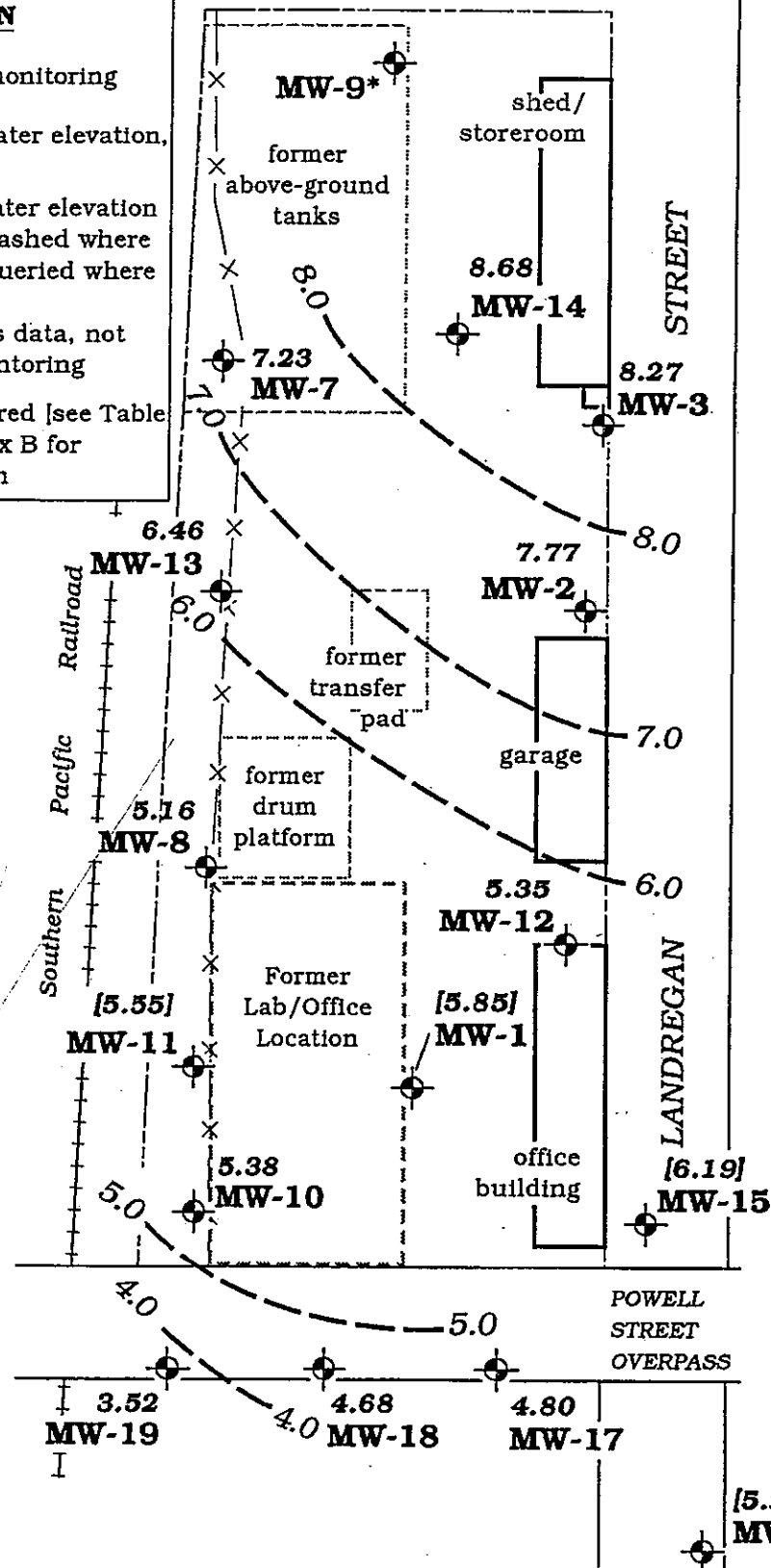
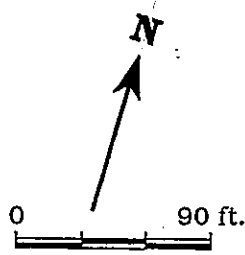
Figure 1. Monitoring Well Locations and Ground Water Elevation Contours - January 5, 1994 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California



EXPLANATION

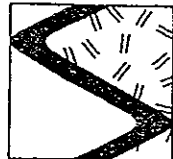
- MW-19** Existing monitoring well
- 8.68** Ground water elevation, in feet
- 8.0** Ground water elevation contour, dashed where inferred, queried where uncertain
- [8.68]** Anomalous data, not used in contouring
- MW-9*** Not measured [see Table I, Appendix B for explanation]

Approximate ground water flow direction




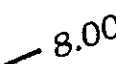
Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - January 29, 1992- Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

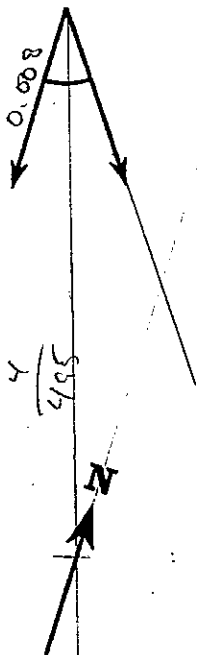


SIERRA

EXPLANATION

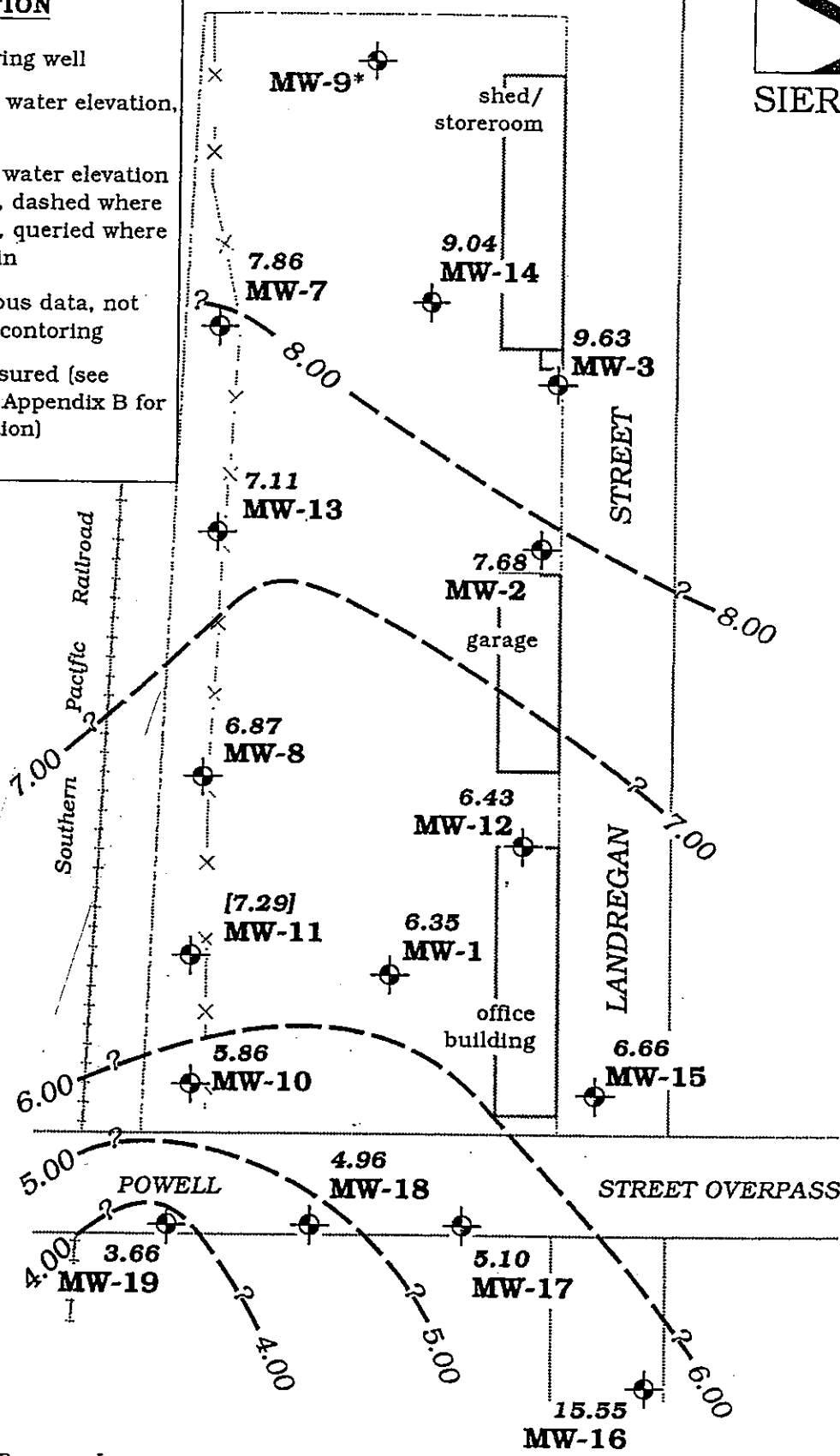
-  **MW-19** Monitoring well
- 3.66** Ground water elevation, in feet
-  **8.00** Ground water elevation contour, dashed where inferred, queried where uncertain
- [7.29]** Anomalous data, not used in contouring
- MW-9*** Not measured (see Table 1, Appendix B for explanation)

Approximate ground water flow direction



0 90 ft.

Scale Approximate



Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - March 26, 1992 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

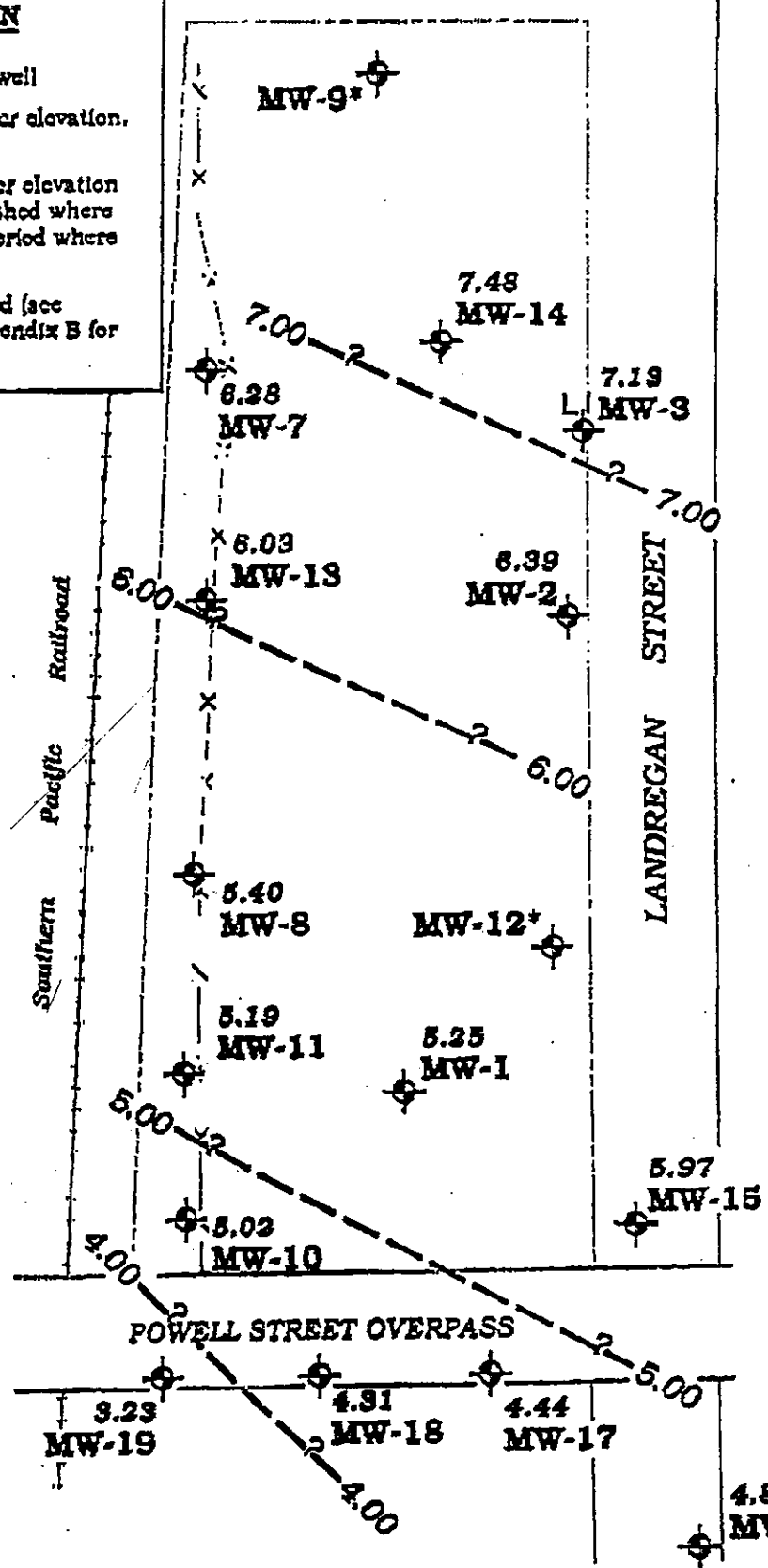
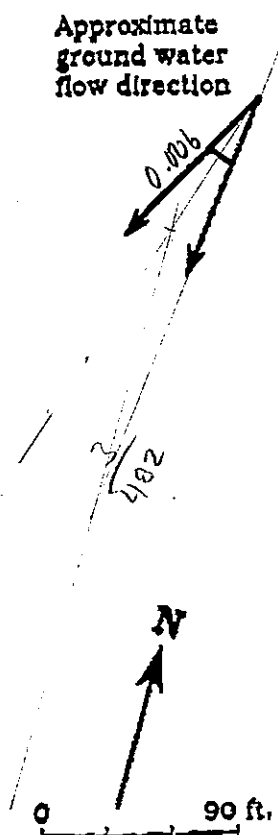
OCT-15-92 FOR 11:58 5:11:14



SIERRA

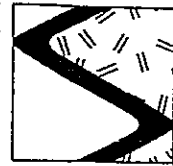
EXPLANATION

- ⊕ MW-19 Monitoring well
- 3.23 Ground water elevation, in feet
- 7.00 Ground water elevation contour, dashed where inferred, queried where uncertain
- * Not measured (see Table 1, Appendix B for explanation)



Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - July 23, 1992 - Former



SIERRA

EXPLANATION

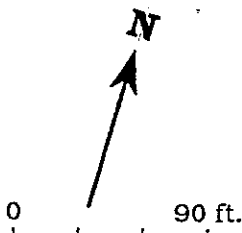
- MW-19** Monitoring well
- MW-12** Monitoring well not located
- MW-8*** Obstructed monitoring well

3.29 Ground water elevation, in feet

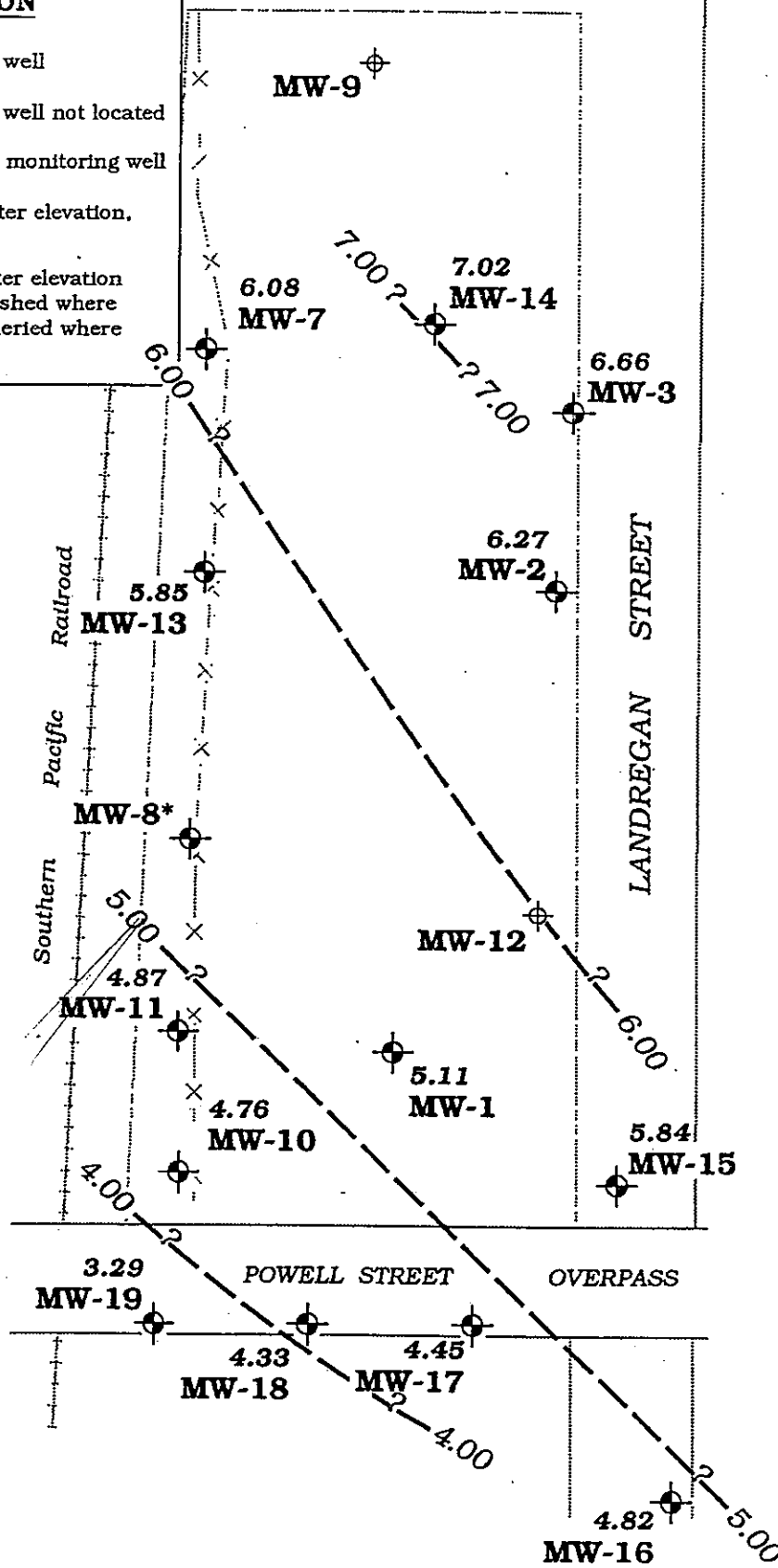
— 6.00 Ground water elevation contour, dashed where inferred, queried where uncertain

Approximate ground water flow direction

$\frac{3}{423}$

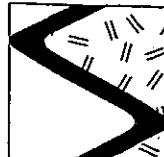


Scale Approximate



Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - October 29, 1992 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

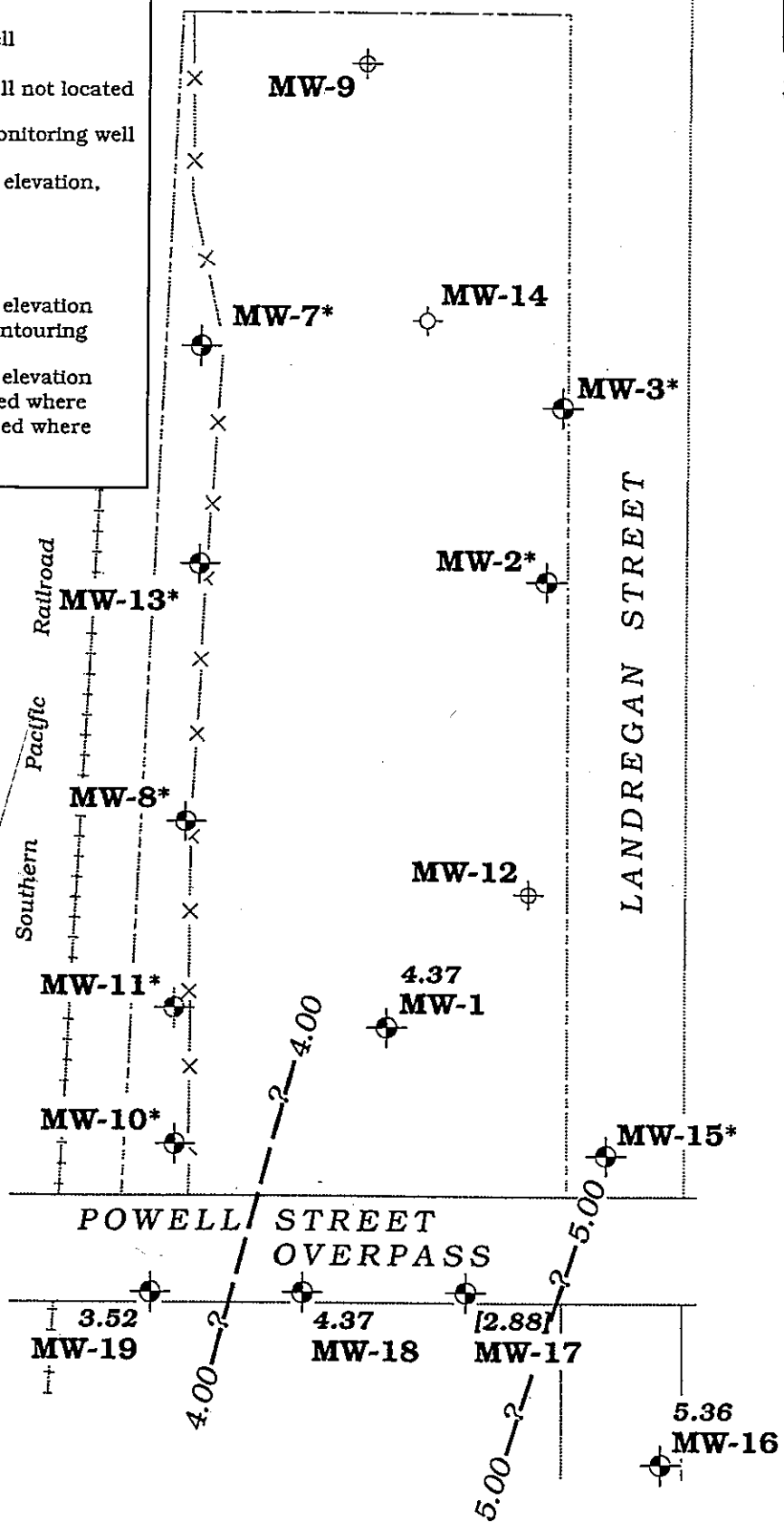
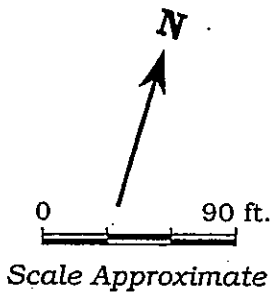


SIERRA

EXPLANATION

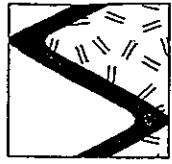
- MW-19** Monitoring well
- MW-12** Monitoring well not located
- MW-14** Abandoned monitoring well
- 3.52** Ground water elevation, in feet
- *** Not measured
- [2.88]** Ground water elevation not used in contouring
- 4.00** Ground water elevation contour, dashed where inferred, queried where uncertain

Approximate ground water flow direction



Base map after Western Geologic Resources, Inc.

Figure 1. Monitoring Well Locations and Ground Water Elevation Contours - May 4, 1993 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

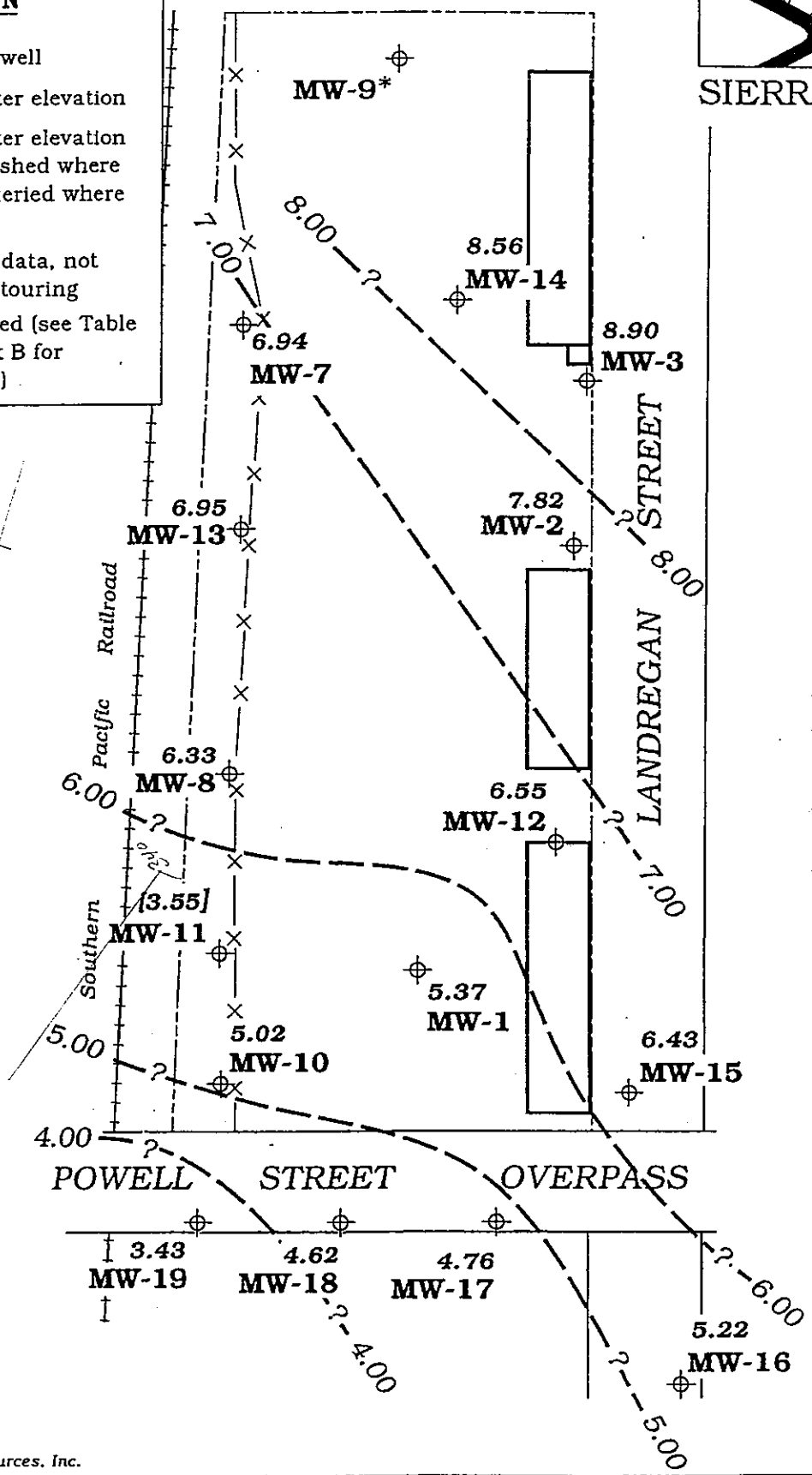
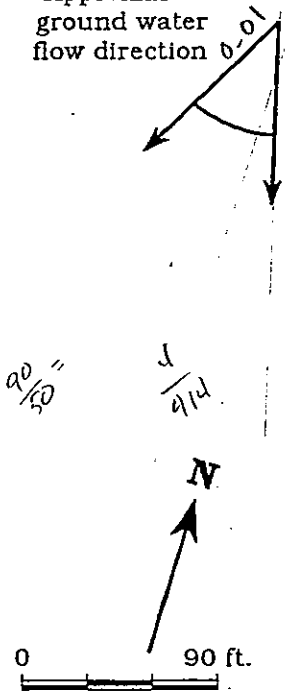


SIERRA

EXPLANATION

- MW-18** Monitoring well
- 4.62** Ground water elevation
- 4.00** Ground water elevation contour, dashed where inferred, queried where uncertain
- [3.55]** Anomalous data, not used in contouring
- MW-9*** Not measured (see Table 1, Appendix B for explanation)

Approximate ground water flow direction

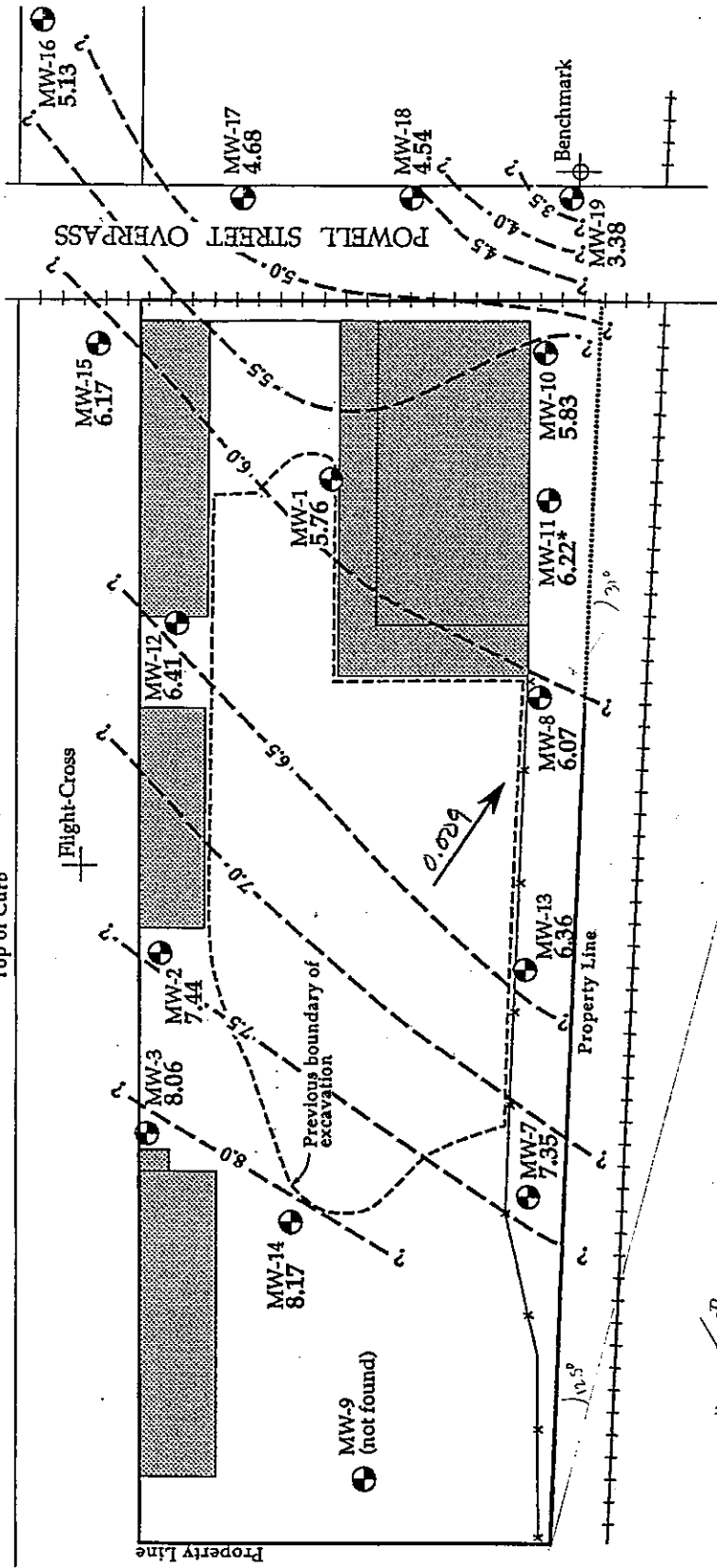


Base map after Western Geologic Resources, Inc.

Figure 2. Monitoring Well Locations and Ground Water Elevation Contours - May 10, 1991 - Former Chevron Asphalt Plant and Terminal #1001067, Emeryville, California

LANDREGAN STREET

Top of Curb



SOUTHERN PACIFIC RAILROAD



1/91

FIGURE 2

Potentiometric Surface of Shallow Groundwater
 28 December 1990
 Former Chevron Asphalt Plant and Terminal
 Emeryville, California

WESTERN GEOLOGIC RESOURCES, INC.

1-04548

EXPLANATION	
● MW-8 6.07	Monitor Well location and groundwater elevation, feet above mean sea level
8.03*	Anomalous water elevation, not used for contouring
→	Estimated direction of groundwater flow

Attachment D
Soil Tables and Boring/Well Logs

Table 3. Selected 1520 Powell Street Soil Analytical Results

Sample Location

Compound	Detection Limit (ppm)	Composite		
		1 S-1, S-2, S-3 S-4, S-5, S-6 (ppm)	2 S-7, S-8 S-9, S-10 (ppm)	3 S-11, S-12 S-13, S-14 (ppm)
Trichloroethene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	1.1
				S-15 (ppm)
				S-17 (ppm)
				S-18 (ppm)
Other ²	10	70	100	7,500 ³

Volatile Organics In Soil:
(EPA Method 8240)

Trichloroethene
Total Xylenes

Total Petroleum Hydrocarbons:
(EPA Method 3550/8015)

Other²

1 Analytes and sampling locations presented only where detectable levels were present.

2 Quantification based on largest peaks within C8 to C15 boiling range.

3 Computer generated mass spectral data library search (match probability) identified this sample as: pentane; trans-1,3-dimethyl cyclopentane; methyl cyclohexane; 1,1-dimethyl cyclohexane; 1,4-dimethyl cyclohexane; cis-1-ethyl-2-methyl cyclopentane and 1,1,3-trimethyl cyclohexane.

ND Not detected above detection limit

ppm parts per million (g/l for water and g/kg for soil)

S-1 Surface Soil Sample #1 as shown on Plate 2.

In general, previous soil sample analytical results indicate that the soils at the site have been impacted with gasoline and diesel hydrocarbons, TCE, and a variety of solvent and thinner constituents. The bulk of the significantly hydrocarbon-impacted soils are located in areas 2, 3 and 5. TCE contamination was primarily limited to area 4. Table 1 presents a brief summary of the previous soil sampling results.

TABLE 1
SUMMARY OF SOIL SAMPLE RESULTS AS PREVIOUSLY INVESTIGATED*

LOCATION	DATE	SAMPLE DEPTH (ft)	SAMPLE TYPE	RESULTS/ RANGE OF RESULTS
Area 1	July '88	3.0	Composite	70 ppm TPH
Area 2	July '88	3.0	Composite	100 ppm TPH
Area 3	July '88	3.0	Composite	840 ppm TPH
Area 3- Center	July '88	3.0	Grab	7500 ppm TPH <i>gasoline?</i>
Area 3	Sept '88	3.0	Composites	490 to 1700 ppm - TPH-Diesel
Area 3	Sept '88	5.0	Composites	640 to 2100 ppm - TPH-Diesel
Area 4	Aug '88	3.0	Grab	1400 to 1500 ppb - TCE
Area 5	Oct '88	3.0	Grab	160 to 2000 ppm - TPH-Diesel
Area 5	Oct '88	5.0 - 6.0	Grab	310 to 2700 ppm - TPH-Diesel
Area 5	Oct '88	5.0 - 6.0	Grab	160 ppm TPH

Excavated

ppm = parts per million
ppb = parts per billion
TPH = Total Petroleum Hydrocarbons
TCE = Trichloroethene
* = Data taken from referenced reports.

TABLE 1. Analytic Results For Composite Soil Samples
 1520 Powell Street
 Emeryville, California

Bore Holes	Depth (ft.)	Date	TFH	FC	Benzene	Toluene	Xylenes	E-Benzene
B-1 to B-5	3.0	07 Sep 88	1700	D	<0.3	<0.3	<0.3	<0.3
	5.0	07 Sep 88	1700	D	0.5	0.5	<0.3	0.9
B-6 to B-10	3.0	07 Sep 88	490	D	<0.3	<0.3	<0.3	<0.3
	5.0	07 Sep 88	640	D	0.5	<0.3	<0.3	0.5
B-11 to B-15	3.0	07 Sep 88	1900	D	0.3	<0.3	<0.3	5.4
	5.0	07 Sep 88	1000	D	0.6	1.3	<0.3	3.3
B-16 to B-20	3.0	07 Sep 88	1700	G&D	1.4	6.1	1.4	18
	5.0	07 Sep 88	2100	G&D	1.4	1.3	7.8	13

Notes:

Xylenes = Sum of xylene isomers

E-Benzene = Ethyl benzene

TFH = Total fuel hydrocarbons

FC = Fuel characterization

D = Diesel

O = Oil

G = Gas

--- = Not characterized

METHOD(S) = EPA 8015/8020

TABLE 2 Analytic Results For Soil Samples
1520 Powell Street
Emeryville, California

Bore Hole	Depth (ft.)	Date	TFH	FC	Benzene	Toluene	Xylenes	E-Benzene
B-21	3	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-21	5	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-22	3	30 Sep 88	93	D	<0.3	<0.3	<0.3	<0.3
B-22	4.5	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-23	3	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-23	5	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-24	3	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-24	5	30 Sep 88	310	D	<0.3	<0.3	2	<0.3
B-25	3	30 Sep 88	1800	D	<0.3	<0.3	7	<0.3
B-25	5	30 Sep 88	2700	D	<0.3	<0.3	20	<0.3
B-26	3	30 Sep 88	210	D	<0.3	<0.3	2	<0.3
B-26	5	30 Sep 88	1000	D	<0.3	<0.3	4.2	<0.3
B-27	3	30 Sep 88	840	D	<0.3	<0.3	7.4	<0.3
B-27	5	30 Sep 88	1900	D	<0.3	<0.3	16	<0.3
B-28	3.5	30 Sep 88	240	D	<0.3	<0.3	2.5	<0.3
B-28	5.5	30 Sep 88	270	D	<0.3	<0.3	1.3	<0.3
B-30	3.5	30 Sep 88	290	D	<0.3	<0.3	1.4	<0.3
B-30	5.5	30 Sep 88	1700	D	<0.3	<0.3	6.2	<0.3
B-31	3.5	30 Sep 88	460	D+O	<0.3	<0.3	<0.3	<0.3
B-31	5.5	30 Sep 88	1000	D+O	<0.3	<0.3	2.6	<0.3
B-33	3	30 Sep 88	2000	D+G	0.7	<0.3	9.6	<0.3
B-33	5	30 Sep 88	830	D+G	<0.3	0.9	4.2	<0.3
B-34	3	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-34	5	30 Sep 88	2700	D+G	0.9	<0.3	12	<0.3
B-37	3	30 Sep 88	1100	D	<0.3	<0.3	5.4	<0.3
B-38	3	30 Sep 88	990	D+G	0.5	0.9	2.2	<0.3
B-40	4	30 Sep 88	180	O	<0.3	<0.3	<0.3	<0.3
B-40	6	30 Sep 88	<10	---	<0.3	<0.3	<0.3	<0.3
B-41	5	30 Sep 88	430	G	<0.3	<0.3	4.7	<0.3
B-41	6	30 Sep 88	160	G	<0.3	<0.3	<0.3	<0.3

Table 1. Analytic Results: Soil
Former Chevron Asphalt Plant
Emeryville, California
WGR Project #1-045.45

Well/Sample ID#	Date	Depth	EPA	Benzene	Toluene	E-Benzene	Xylenes	TPH(G)	TPH(D)	ORG
				←-ppm-ppm.....ppm.....ppm.....ppm.....ppm.....	←-ppm→
B-1	2 Feb 90	18.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
B-1	2 Feb 90	23.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
B-1	2 Feb 90	29.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
MW-13	2 Feb 90	3.5	8240/8015	<0.01	<0.02	<0.02	<0.02	430	870	---
MW-13	2 Feb 90	5.5	8240/8015	<0.01	<0.02	<0.02	<0.02	130	260	---
MW-13	2 Feb 90	10.5	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	11	---
MW-13	2 Feb 90	13.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
MW-14	2 Feb 90	5.5	8240/8015	<0.01	<0.02	<0.02	<0.02	10	60	---
MW-14	2 Feb 90	8.5	8240/8015	<0.01	<0.02	<0.02	<0.02	17	120	---
MW-14	2 Feb 90	11.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
MW-15	2 Feb 90	6.0	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
MW-15	2 Feb 90	9.5	8240/8015	<0.01	<0.02	<0.02	<0.02	<10	<10	---
MW-16	23 Mar 90	8.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-16	23 Mar 90	10.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-17	21 Mar 90	4.8	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-17	21 Mar 90	7.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	220	640
MW-17	21 Mar 90	9.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-17	21 Mar 90	12.8	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-18	22 Mar 90	4.8	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-18	22 Mar 90	7.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-18	22 Mar 90	9.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-18	22 Mar 90	11.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-19	22 Mar 90	5.8	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	17
MW-19	22 Mar 90	8.8	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
MW-19	22 Mar 90	10.3	8020/8015	<0.005	<0.005	<0.005	<0.015	<10	<10	<5
TB	26 Mar 90									

Table 1. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California
WGR Project #1-045.45

Well/Sample ID#	Date	Depth	EPA Method	Acetone	1,2-DCE	1,1-DCE	Chloroform	1,2-DCA	1,1,1-TCA	TCE	PCE
B-1	2 Feb 90	18.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
B-1	2 Feb 90	23.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
B-1	2 Feb 90	29.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-13	2 Feb 90	3.5	8240	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-13	2 Feb 90	5.5	8240	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-13	2 Feb 90	10.5	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-13	2 Feb 90	13.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-14	2 Feb 90	5.5	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-14	2 Feb 90	8.5	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-14	2 Feb 90	11.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-15	2 Feb 90	6.0	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-15	2 Feb 90	9.5	8240	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW-16	23 Mar 90	8.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-16	23 Mar 90	10.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-17	21 Mar 90	4.8	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-17	21 Mar 90	7.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-17	21 Mar 90	9.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-17	21 Mar 90	12.8	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-18	21 Mar 90	4.8	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-18	21 Mar 90	7.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-18	21 Mar 90	9.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-18	21 Mar 90	11.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-19	22 Mar 90	5.8	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-19	22 Mar 90	8.8	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
MW-19	22 Mar 90	10.3	8010	---	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5
TB	26 Mar 90										

Table 1. Analytic Results: Soil
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	TPH		Total O&G	Petroleum O&G	Acetone	Methylene Chloride	2-Butanone	1,2-DCE	TCE
		Gasoline	Diesel							
		8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-1	26 Mar 90	<10	<10	17	---	<100	<5	<100	<5	<5
SB-2	26 Mar 90	<10	<10	27	---	<100	<5	<100	<5	<5
SB-3	26 Mar 90	<10	<10	5	---	<100	<5	<100	<5	<5
SB-4	26 Mar 90	<10	<10	7	---	<100	<5	<100	<5	<5
SB-5	26 Mar 90	<10	<10	6	---	<100	<5	<100	<5	<5
SB-6	26 Mar 90	<10	<10	6	---	<100	<5	<100	<5	<5
SB-7	26 Mar 90	<10	<10	15	---	<100	<5	<100	<5	<5
SB-8	26 Mar 90	<10	<10	12	---	<100	<5	<100	<5	<5
SB-9	26 Mar 90	<10	<10	8	---	<100	<5	<100	<5	<5
SB-10	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-11	26 Mar 90	<10	<10	420	---	<100	<5	<100	<5	<5
SB-12	26 Mar 90	<10	<10	72	---	<100	<5	<100	<5	<5
SB-13	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-14	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-15	26 Mar 90	<10	<10	8	---	<100	<5	<100	<5	<5
SB-16	26 Mar 90	<10	57	98	---	<100	<5	<100	<5	<5

Table 1. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	ppm		Total O&G	Petroleum O&G	Acetone	Methylene Chloride	2-Butanone	1,2-DCE	TCE
		TPH Gasoline	TPH Diesel							
EPA Method		8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-17	26 Mar 90	<10	<10	1300	530	<100	<5	<100	<5	<5
SB-18	26 Mar 90	47	16	29	400	<100	<5	<100	<5	<5
SB-19	26 Mar 90	78	38	280	420	<100	<5	<100	<5	<5
SB-20	26 Mar 90	<10	<10	450	32	<100	<5	<100	<5	<5
SB-21	26 Mar 90	<10	<10	22	56	<100	<5	<100	<5	<5
SB-22	26 Mar 90	<10	<10	93	57	<100	<5	<100	<5	<5
SB-23	26 Mar 90	78	<10	230	31	<100	<5	<100	<5	<5
SB-24	26 Mar 90	<10	<10	.120	76	<100	<5	<100	<5	<5
SB-25	26 Mar 90	1900	<10	3900	2300	<100	<5	<100	<5	<5
SB-26	26 Mar 90	660	<10	1100	---	170	<5	<100	<5	<5
SB-27	26 Mar 90	390	<10	110	---	<100	<5	<100	<5	<5
SB-28	26 Mar 90	86	<10	150	---	<100	<5	<100	<5	<5
SB-29	26 Mar 90	97	<10	570	---	<100	<5	220	<5	<5
SB-30	26 Mar 90	59	<10	55	---	150	<5	<100	<5	<5
SB-31	26 Mar 90	<10	<10	64	---	<100	<5	<100	<5	<5
SB-32	26 Mar 90	<10	<10	<5	---	120	<5	<100	<5	<5

Exempted
10/90

045T6A90.WP

Table 1. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	TPH		TPH Diesel	Total O&G	Petroleum O&G	Acetone	Methylene Chloride	2-Butanone	1,2-DCE	TCE
		Gasoline									
		8015	8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-33	26 Mar 90	<10	<10	<10	<5	---	100	<5	<100	<5	<5
SB-34	26 Mar 90	<10	<10	<10	<5	---	<100	25	<100	<5	<5
SB-35	26 Mar 90	<10	720	720	6200	---	<100	<5	<100	<5	<5
SB-36	26 Mar 90	<10	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-37	26 Mar 90	<10	<10	<10	<5	---	<100	<5	<100	6.6	<5
SB-38	26 Mar 90	<10	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-39	26 Mar 90	<10	<10	<10	<5	---	200	<5	<100	<5	<5
SB-40	26 Mar 90	<10	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-41	26 Mar 90	<10	<10	<10	8	---	<100	<5	<100	<5	<5
SB-42	26 Mar 90	1200	<10	<10	92000	1700	<100	<5	<100	1700	15000
SB-43	26 Mar 90	<10	<10	<10	9	---	<100	<5	<100	<5	<5

never excavated?

04516APO.MP

Table 2. Analytic Results: Soil
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	ppb----->									
		Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium	Total Chromium	Total Zinc	Total Lead	Soluble Lead	
EPA Method		8240	8240	8240	8240	3050/6010	3050/6010	3050/6010	3050/6010	1310/6010	
SB-1	26 Mar 90	<5	<5	<5	<5	<3	11	41	22	...	
SB-2	26 Mar 90	<5	<5	<5	<5	<3	11	41	25	...	
SB-3	26 Mar 90	<5	<5	<5	<5	<3	6	24	20	...	
SB-4	26 Mar 90	<5	<5	<5	<5	<3	5	20	18	...	
SB-5	26 Mar 90	<5	<5	<5	<5	<3	14	27	22	...	
SB-6	26 Mar 90	<5	<5	<5	<5	<3	7	18	13	...	
SB-7	26 Mar 90	<5	<5	<5	<5	<3	17	31	35	...	
SB-8	26 Mar 90	<5	<5	<5	<5	<3	6	13	13	...	
SB-9	26 Mar 90	<5	<5	<5	<5	<3	6	15	16	...	
SB-10	26 Mar 90	<5	<5	<5	<5	<3	12	23	21	...	
SB-11	26 Mar 90	<5	<5	<5	<5	<3	7	22	23	...	
SB-12	26 Mar 90	<5	<5	<5	<5	<3	7	16	16	...	
SB-13	26 Mar 90	<5	<5	<5	<5	<3	7	12	14	...	
SB-14	26 Mar 90	<5	<5	<5	<5	<3	7	14	13	...	
SB-15	26 Mar 90	<5	<5	<5	<5	<3	8	43	43	...	
SB-16	26 Mar 90	<5	<5	<5	<5	3	11	170	60	...	

Table 2. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium	Total Chromium	Total Zinc	Total Lead	Soluble Lead
EPA Method		8240	8240	8240	8240	3050/6010	3050/6010	3050/6010	3050/6010	1310/6010
SB-17	26 Mar 90	<5	<5	<5	<5	<3	18	90	120	<0.2
SB-18	26 Mar 90	<5	<5	<5	8.6	<3	14	120	190	<0.2
SB-19	26 Mar 90	<5	<5	<5	<5	<3	7	110	150	<0.2
SB-20	26 Mar 90	<5	23	<5	26	4	11	400	880	<0.2
SB-21	26 Mar 90	<5	<5	<5	<5	<3	9	130	150	<0.2
SB-22	26 Mar 90	<5	<5	<5	<5	<3	9	84	130	3
SB-23	26 Mar 90	<5	<5	<5	<5	<3	7	120	120	<0.2
SB-24	26 Mar 90	<5	<5	<5	<5	<3	9	200	180	3
SB-25	26 Mar 90	<5	<5	<5	<5	<3	8	22	17	2
SB-26	26 Mar 90	<5	<5	<5	<5	<3	37	21	13	---
SB-27	26 Mar 90	<5	<5	<5	<5	<3	8	11	12	---
SB-28	26 Mar 90	<5	<5	<5	<5	<3	5	13	15	---
SB-29	26 Mar 90	<5	<5	<5	<5	<3	11	120	110	---
SB-30	26 Mar 90	<5	<5	<5	<5	<3	11	35	34	---
SB-31	26 Mar 90	<5	<5	<5	<5	<3	5	60	30	---
SB-32	26 Mar 90	<5	<5	<5	<5	<3	<5	18	18	---
SB-33	26 Mar 90	<5	<5	<5	<5	<3	<5	26	17	---
SB-34	26 Mar 90	<5	<5	<5	<5	<3	5	8	12	---

Table 2. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium ppb	Total Chromium	Total Zinc	Total Lead	Soluble Lead
EPA Method		8240	8240	8240	8240	3050/6010	3050/6010	3050/6010	3050/6010	1310/6010
SB-35	26 Mar 90	<5	<5	<5	<5	<3	7	26	30	---
SB-36	26 Mar 90	<5	<5	<5	<5	<3	<5	25	41	---
SB-37	26 Mar 90	<5	<5	<5	<5	<3	6	14	16	---
SB-38	26 Mar 90	<5	<5	<5	<5	<3	<5	5	5	---
SB-39	26 Mar 90	<5	<5	<5	<5	<3	<5	6	6	---
SB-40	26 Mar 90	<5	<5	<5	<5	<3	<5	11	10	---
SB-41	26 Mar 90	<5	<5	<5	<5	<3	<5	6	<10	---
SB-42	26 Mar 90	<5	7.0	680	3100	<3	<9	190	120	1
SB-43	26 Mar 90	<5	<5	<5	<5	<3	5	25	17	---

Notes:

All analyses by Groundwater Technology Environmental Laboratories (GTEL)
 ppm = parts-per-million
 ppb = parts-per-billion
 O&G = Oil and Grease
 1,2-DCE = 1,2-Dichloroethene
 TCE = Trichloroethene
 E-Benzene = Ethylbenzene
 < = Less than indicated detection limit
 ... = Not Analyzed



TABLE 1. Analytic Results: Soil Samples
Former Chevron Asphalt Plant
Emeryville, California

Boring ID#	Date	Method	Lab	TPH ←-ppm->	TCE ←	Benzene	Toluene	E-Benzene ppb	Xylenes	Chloroform	Acetone	O&G ←-ppm->
B-1	01 Feb 91	8015/8240/503E	SAL	<10	26	17	49	<15	78	<15	<50	110
B-2	01 Feb 91	8015/8240/503E	SAL	<10	120	<10	15	<15	<15	<15	<50	56
B-3	01 Feb 91	8015/8240/503E	SAL	<10	1,800	26	<15	<15	<15	22	<50	<50
B-4	01 Feb 91	8015/8240/503E	SAL	70	30	<10	<15	<15	<15	<15	<50	690
B-5	01 Feb 91	8015/8240/503E	SAL	180	<15	<10	<15	<15	<15	<15	<50	160
B-6	01 Feb 91	8015/8240/503E	SAL	250	330	17	66	44	140	<15	120	75
B-7	01 Feb 91	8015/8240/503E	SAL	98	2,300	<10	<15	<15	<15	<15	<50	100
B-8	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-9	01 Feb 91	8015/8240/503E	SAL	<10	530	<10	<15	<15	<15	17	<50	<50
B-10	01 Feb 91	8015/8240/503E	SAL	<10	210	<10	<15	<15	<15	<15	<50	<50
B-11	01 Feb 91	8015/8240/503E	SAL	<10	350	<10	<15	<15	<15	<15	<50	<50
B-12	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-13	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50



TABLE 1. Analytic Results: Soil Samples (continued)
 Former Chevron Asphalt Plant
 Emeryville, California

Boring ID#	Date	Method	Lab	TPH ←-ppm-→	TCE ←-ppm-→	Benzene ←-ppm-→	Toluene ←-ppb-→	E-Benzene ←-ppb-→	Xylenes ←-ppm-→	Chloroform ←-ppm-→	Acetone ←-ppm-→	O&G ←-ppm-→
B-14	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-15	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-16	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-17	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	81
B-18	01 Feb 91	8015/8240/503E	SAL	<10	21	<10	<15	<15	<15	<15	<50	<50
B-19	01 Feb 91	8015/8240/503E	SAL	<10	42	<10	<15	<15	<15	<15	<50	50
B-20	01 Feb 91	8015/8240/503E	SAL	<10	46	<10	<15	<15	<15	<15	<50	<50
B-21	01 Feb 91	8015/8240/503E	SAL	<10	1,400	<10	<15	<15	<15	<15	<50	<50
B-22	01 Feb 91	8015/8240/503E	SAL	<10	98	<10	<15	<15	<15	<15	<50	<50
B-23	01 Feb 91	8015/8240/503E	SAL	<10	<15	<10	<15	<15	<15	<15	<50	<50
B-24	01 Feb 91	8015/8240/503E	SAL	18	<15	<10	<15	<15	<15	<15	<50	<50



TABLE 1. Analytic Results: Soil Samples (continued)
Former Chevron Asphalt Plant
Emeryville, California

NOTES:

- TPH = Total Petroleum Hydrocarbons as diesel
- TCE = Trichloroethene
- E-Benzene = Ethylbenzene
- O&G = Oil and Grease
- ppm = parts-per-million
- ppb = parts-per-billion
- = Not Analyzed
- SAL = Superior Analytical Laboratories

Table 1: Soil Analytical Results - Organics
 Former Chevron Asphalt Plant - Facility #1001067
 1520 Powell Street, Emeryville, California.

Sample	Date Collected	Approximate Depth (feet)	TPH Diesel (a) (mg/kg)	Oil and Grease (b) (mg/kg)	Volatile Organics (c) (mg/kg)	Polychlorinated Biphenyls (d) (mg/kg)
SB-1-2	6-May-92	2	21 (e)	170	0.350 (f)	ND (0.050)
SB-1-5	6-May-92	5	160 (g)	ND (50)	ND	ND (0.050)
SB-2-2	6-May-92	2	85 (e)	290	0.420 (f)	ND (0.050)
SB-2-5	6-May-92	5	ND (10)	ND (50)	ND	ND (0.050)
SB-3-2	6-May-92	2	84 (e)	430	0.100 (f)	ND (0.050)
SB-4-2	6-May-92	2	17 (e)	250	0.170 (f)	ND (0.050)
HL-4	8-May-92	8	ND (10)	ND (50)	ND	NA
HL-5	8-May-92	9	ND (10)	ND (50)	ND	NA
S-1	11-May-92	9	ND (10)	ND (50)	ND	NA
S-2	11-May-92	12	180 (g)	87	ND	NA
S-3	11-May-92	9	21 (g)	ND (50)	ND	NA

(a) Analyzed by USEPA Method 8015, modified.

(b) Analyzed by USEPA Method 5520F.

(c) Analyzed by USEPA Method 8240.

(d) Analyzed by USEPA Method 8080.

(e) Superior reported the pattern of chromatogram shows heavy hydrocarbons.

(f) Only acetone was detected in Volatile Organic Analysis, acetone levels reported.

(g) Superior reported the pattern observed in the chromatogram was not typical of diesel.

mg/kg Milligrams per kilogram equivalent to parts per million (ppm)

ND (10) Not detected (Detection Limit)

NA Not analyzed

Analysis by Superior Precision Analytical, Inc., Martinez, California.

Table 2: Soil Analytical Results - Metals
Former Chevron Asphalt Plant - Facility #1001067
1520 Powell Street, Emeryville, California.

Metal (a)	TTLIC (b) (mg/kg)	Sample SB-1-2 (c) (mg/kg)	Sample SB-1-5 (c) (mg/kg)	Sample SB-2-2 (c) (mg/kg)	Sample SB-2-5 (c) (mg/kg)	Sample SB-3-2 (c) (mg/kg)	Sample SB-4-2 (c) (mg/kg)
Antimony	500	6	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Arsenic	500	4	4	6	5	5	3
Barium	10,000	110	140	180	170	180	110
Beryllium	75	ND (0.5)	ND (0.5)	0.6	0.5	ND (0.5)	ND (0.5)
Cadmium	100	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Chromium	2,500	12	23	19	19	21	16
Cobalt	8,000	ND (10)	ND (10)	ND (10)	10	10	ND (10)
Copper	2,500	20	20	20	20	40	40
Lead	1,000	44	7	8	13	380	230
Mercury	20	0.4	0.2	1.7	ND (0.1)	1.8	1.4
Molybdenum	3,500	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)
Nickel	2,000	20	20	50	50	30	20
Selenium	100	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Silver	500	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Thallium	700	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)
Vanadium	2,400	10	30	30	30	20	20
Zinc	5,000	100	30	20	30	310	110

- (a) Analyzed by USEPA Method 6010, All results reported in milligrams per kilogram (mg/kg).
 (b) Total threshold limit concentrations for toxicity. California Code of Regulations
 Title 22, Division 4.5, Chapter 11, Article 3, 66261.24 Characteristics of Toxicity.
 (c) Collected on May 6, 1992.

mg/kg Milligrams per kilogram (ppm)
 ND (10) Not detected (Detection Limit)

Table 3-1. Maximum Soil Concentrations, Former Chevron Asphalt Plant, Emeryville, California.

Constituent	Soil Concentration (mg/kg)
Benzene	0.5
trans-1,2-Dichloroethene	1.7
Ethylbenzene	0.68
Toluene	0.007
TPH as diesel	3,500
TPH as gasoline	1,900
Trichloroethene	15
Xylenes	3.1

mg/kg Milligrams per kilogram.
TPH Total petroleum hydrocarbons.



TABLE 1. Analytical Results of Soil Samples taken from
Underneath the Remaining Structures at Emeryville

Boring	TPPH (Gas)	ppm					
		B	T	E	X	O&G	PCE
1	<1	<0.005	0.005	<0.005	0.011	<50	<0.005
2	<1	<0.005	0.006	<0.005	0.011	<50	<0.005
3	<1	<0.005	0.005	<0.005	0.010	<50	<0.005
4	<1	<0.005	0.006	<0.005	0.011	<50	<0.005
5	<1	<0.005	0.011	<0.005	0.012	<50	<0.005
6	Not Sampled						
7	<1	<0.005	0.006	<0.005	0.011	<50	<0.005
8	Not Sampled						
9	<1	<0.005	0.006	<0.005	0.022	<50	<0.007
10	<1	<0.005	0.006	<0.005	0.013	<50	<0.005
11	<1	<0.005	0.006	<0.005	0.012	<50	<0.005
12	<1	<0.005	<0.005	<0.005	0.010	<50	<0.005
13	<1	<0.005	0.005	<0.005	0.010	<50	<0.005
14	1	<0.005	<0.005	<0.005	0.016	<50	<0.005
15	<1	<0.005	<0.005	<0.005	0.010	51	<0.005
16	<1	<0.005	0.009	<0.005	0.017	<50	<0.005
17	Not Sampled						
18	Not Sampled						
19	Not Sampled						



TABLE 1. Analytical Results of Soil Samples taken from
Underneath the Remaining Structures at Emeryville (continued)

Boring	TPPH (Gas)	B	T	E	X	O&G	PCE
		←----- ppm -----→					
20	1	<0.005	0.006	<0.005	0.014	<50	<0.005
21	53	<0.005	<0.005	<0.005	0.16	<50	<0.005
22	<1	<0.005	<0.005	<0.005	<0.005	260	<0.005

NOTES:

TPPH (Gas) = Total Purgeable Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

O&G = Oil and Grease

PCE = Tetrachloroethene

ppm = parts-per-million

Table 1. Analytic Results: Soil
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	TPH Gasoline	TPH Diesel	Total O&G	Petroleum O&G	Acetone	Methylene Chloride	2-Butanone	1,2-DCE	TCE
		←-----ppm----->	←-----ppm----->	←-----ppm----->	←-----ppm----->	←-----ppm----->	←-----ppm----->	←-----ppb----->	←-----ppb----->	←-----ppb----->
EPA Method		8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-1	26 Mar 90	<10	<10	17	---	<100	<5	<100	<5	<5
SB-2	26 Mar 90	<10	<10	27	---	<100	<5	<100	<5	<5
SB-3	26 Mar 90	<10	<10	5	---	<100	<5	<100	<5	<5
SB-4	26 Mar 90	<10	<10	7	---	<100	<5	<100	<5	<5
SB-5	26 Mar 90	<10	<10	6	---	<100	<5	<100	<5	<5
SB-6	26 Mar 90	<10	<10	6	---	<100	<5	<100	<5	<5
SB-7	26 Mar 90	<10	<10	15	---	<100	<5	<100	<5	<5
SB-8	26 Mar 90	<10	<10	12	---	<100	<5	<100	<5	<5
SB-9	26 Mar 90	<10	<10	8	---	<100	<5	<100	<5	<5
SB-10	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-11	26 Mar 90	<10	<10	420	---	<100	<5	<100	<5	<5
SB-12	26 Mar 90	<10	<10	72	---	<100	<5	<100	<5	<5
SB-13	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-14	26 Mar 90	<10	<10	<5	---	<100	<5	<100	<5	<5
SB-15	26 Mar 90	<10	<10	8	---	<100	<5	<100	<5	<5
SB-16	26 Mar 90	<10	57	98	---	<100	<5	<100	<5	<5

Table 1. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	TPH		Total O&G	Petroleum O&G	Acetone	Methylene Chloride	2-Butanone	1,2-DCE	TCE
		Gasoline	Diesel							
		ppm						ppb		
EPA Method		8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-17	26 Mar 90	<10	<10	1300	530	<100	<5	<100	<5	<5
SB-18	26 Mar 90	47	16	29	400	<100	<5	<100	<5	<5
SB-19	26 Mar 90	78	38	280	420	<100	<5	<100	<5	<5
SB-20	26 Mar 90	<10	<10	450	32	<100	<5	<100	<5	<5
SB-21	26 Mar 90	<10	<10	22	56	<100	<5	<100	<5	<5
SB-22	26 Mar 90	<10	<10	93	57	<100	<5	<100	<5	<5
SB-23	26 Mar 90	78	<10	230	31	<100	<5	<100	<5	<5
SB-24	26 Mar 90	<10	<10	120	76	<100	<5	<100	<5	<5
SB-25	26 Mar 90	1900	<10	3900	2300	<100	<5	<100	<5	<5
SB-26	26 Mar 90	660	<10	1100	---	170	<5	<100	<5	<5
SB-27	26 Mar 90	390	<10	110	---	<100	<5	<100	<5	<5
SB-28	26 Mar 90	86	<10	150	---	<100	<5	<100	<5	<5
SB-29	26 Mar 90	97	<10	570	---	<100	<5	220	<5	<5
SB-30	26 Mar 90	59	<10	55	---	150	<5	<100	<5	<5
SB-31	26 Mar 90	<10	<10	64	---	<100	<5	<100	<5	<5
SB-32	26 Mar 90	<10	<10	<5	---	120	<5	<100	<5	<5

Excavated
10/90

045T6APO.VP

Table 1. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	TPH Gasoline ←.....ppm.....→	TPH Dieselppm.....	Total O&G	Petroleum O&G	Acetone ←.....ppb.....→	Methylene Chlorideppb.....	2-Butanoneppb.....	1,2-DCEppb.....	TCEppb.....
EPA Method		8015	8015	413.2	418.1	8240	8240	8240	8240	8240
SB-33	26 Mar 90	<10	<10	<5	...	100	<5	<100	<5	<5
SB-34	26 Mar 90	<10	<10	<5	...	<100	25	<100	<5	<5
SB-35	26 Mar 90	<10	720	6200	...	<100	<5	<100	<5	<5
SB-36	26 Mar 90	<10	<10	<5	...	<100	<5	<100	<5	<5
SB-37	26 Mar 90	<10	<10	<5	...	<100	<5	<100	6.6	<5
SB-38	26 Mar 90	<10	<10	<5	...	<100	<5	<100	<5	<5
SB-39	26 Mar 90	<10	<10	<5	...	200	<5	<100	<5	<5
SB-40	26 Mar 90	<10	<10	<5	...	<100	<5	<100	<5	<5
SB-41	26 Mar 90	<10	<10	8	...	<100	<5	<100	<5	<5
SB-42	26 Mar 90	1200	<10	92000	1700	<100	<5	<100	1700	15000
SB-43	26 Mar 90	<10	<10	9	...	<100	<5	<100	<5	<5

never excavated?

045T6AP0.WP



Table 2. Analytic Results: Soil
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium ppb	Total Chromium	Total Zinc	Total Lead	Soluble Lead
SB-1	26 Mar 90	<5	<5	<5	<5	<3	11	41	22	...
SB-2	26 Mar 90	<5	<5	<5	<5	<3	11	41	25	...
SB-3	26 Mar 90	<5	<5	<5	<5	<3	6	24	20	...
SB-4	26 Mar 90	<5	<5	<5	<5	<3	5	20	18	...
SB-5	26 Mar 90	<5	<5	<5	<5	<3	14	27	22	...
SB-6	26 Mar 90	<5	<5	<5	<5	<3	7	18	13	...
SB-7	26 Mar 90	<5	<5	<5	<5	<3	17	31	35	...
SB-8	26 Mar 90	<5	<5	<5	<5	<3	6	13	13	...
SB-9	26 Mar 90	<5	<5	<5	<5	<3	6	15	16	...
SB-10	26 Mar 90	<5	<5	<5	<5	<3	12	23	21	...
SB-11	26 Mar 90	<5	<5	<5	<5	<3	7	22	23	...
SB-12	26 Mar 90	<5	<5	<5	<5	<3	7	16	16	...
SB-13	26 Mar 90	<5	<5	<5	<5	<3	7	12	14	...
SB-14	26 Mar 90	<5	<5	<5	<5	<3	7	14	13	...
SB-15	26 Mar 90	<5	<5	<5	<5	<3	8	43	43	...
SB-16	26 Mar 90	<5	<5	<5	<5	3	11	170	60	...

Table 2. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium	Total Chromium	Total Zinc	Total Lead	Soluble Lead
EPA Method		8240	8240	8240	8240	3050/6010	3050/6010	3050/6010	3050/6010	1310/6010
SB-17	26 Mar 90	<5	<5	<5	<5	<3	18	90	120	<0.2
SB-18	26 Mar 90	<5	<5	<5	8.6	<3	14	120	190	<0.2
SB-19	26 Mar 90	<5	<5	<5	<5	<3	7	110	150	<0.2
SB-20	26 Mar 90	<5	23	<5	26	4	11	400	880	<0.2
SB-21	26 Mar 90	<5	<5	<5	<5	<3	9	130	150	<0.2
SB-22	26 Mar 90	<5	<5	<5	<5	<3	9	84	130	3
SB-23	26 Mar 90	<5	<5	<5	<5	<3	7	120	120	<0.2
SB-24	26 Mar 90	<5	<5	<5	<5	<3	9	200	180	3
SB-25	26 Mar 90	<5	<5	<5	<5	<3	8	22	17	2
SB-26	26 Mar 90	<5	<5	<5	<5	<3	37	21	13	---
SB-27	26 Mar 90	<5	<5	<5	<5	<3	8	11	12	---
SB-28	26 Mar 90	<5	<5	<5	<5	<3	5	13	15	---
SB-29	26 Mar 90	<5	<5	<5	<5	<3	11	120	110	---
SB-30	26 Mar 90	<5	<5	<5	<5	<3	11	35	34	---
SB-31	26 Mar 90	<5	<5	<5	<5	<3	5	60	30	---
SB-32	26 Mar 90	<5	<5	<5	<5	<3	<5	18	18	---
SB-33	26 Mar 90	<5	<5	<5	<5	<3	<5	26	17	---
SB-34	26 Mar 90	<5	<5	<5	<5	<3	5	8	12	---

045T5APO.WP

Table 2. Analytic Results: Soil (continued)
Former Chevron Asphalt Plant
Emeryville, California

Boring ID	Date Sampled	Benzene	Toluene	E-Benzene	Xylenes	Total Cadmium ppb	Total Chromium	Total Zinc	Total Lead	Soluble Lead
EPA Method		8240	8240	8240	8240	3050/6010	3050/6010	3050/6010	3050/6010	1310/6010
SB-35	26 Mar 90	<5	<5	<5	<5	<3	7	26	30	---
SB-36	26 Mar 90	<5	<5	<5	<5	<3	<5	25	41	---
SB-37	26 Mar 90	<5	<5	<5	<5	<3	6	14	16	---
SB-38	26 Mar 90	<5	<5	<5	<5	<3	<5	5	5	---
SB-39	26 Mar 90	<5	<5	<5	<5	<3	<5	6	6	---
SB-40	26 Mar 90	<5	<5	<5	<5	<3	<5	11	10	---
SB-41	26 Mar 90	<5	<5	<5	<5	<3	<5	6	<10	---
SB-42	26 Mar 90	<5	7.0	680	3100	<3	<9	190	120	1
SB-43	26 Mar 90	<5	<5	<5	<5	<3	5	25	17	---

Notes:

All analyses by Groundwater Technology Environmental Laboratories (GTEL)

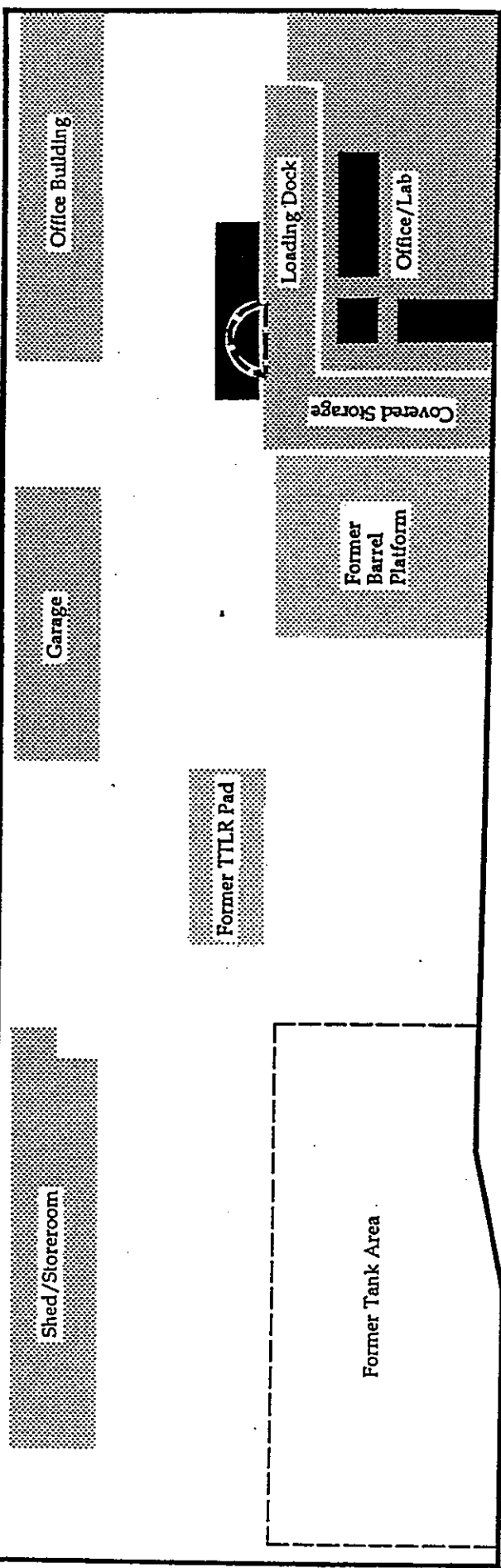
- ppm = parts-per-million
- ppb = parts-per-billion
- Oil & Grease = Oil and Grease
- 1,2-DCE = 1,2-dichloroethene
- TCE = Trichloroethene
- E-Benzene = Ethylbenzene
- < = Less than indicated detection limit
- = Not Analyzed

LANDREGAN STREET

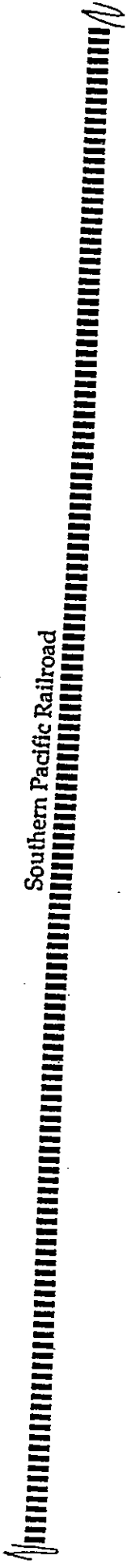
POWELL STREET



Former Oil Tank



Southern Pacific Railroad



LEGEND

--- Boundary of original excavation plan, interpreted area of >1 part per million (ppm) concentration of TCE

█ Excavated area of trichloroethylene (TCE) contaminated soils

Excavation of Soils Containing Halocarbons
Former Chevron Asphalt Plant and Terminal
Emeryville, California

September 1989

FIGURE

3

WESTERN GEOLOGIC RESOURCES, INC.

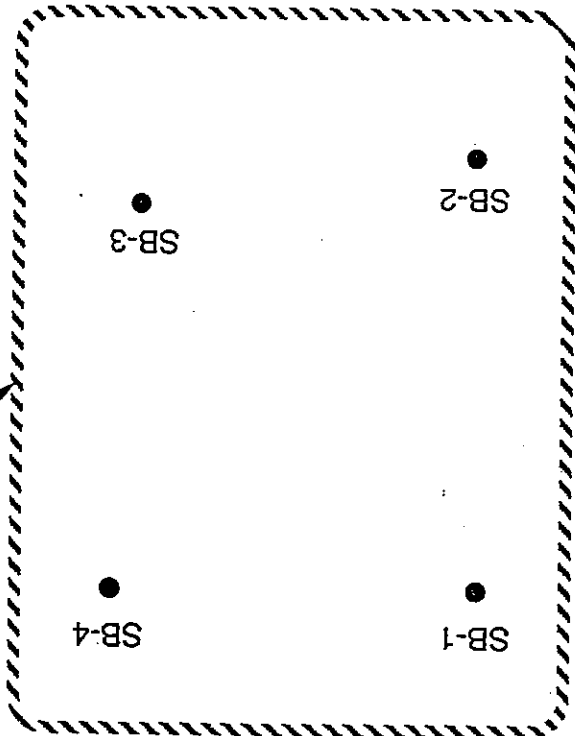
1-045.41

(a) Based on information provided by Mr. Gordon Johnson, Chevron, May 6, 1992.

● location
SB-1 Approximate soil boring

--- Property line

EXPLANATION



Approximate area of observed black liquid on April 22, 1992 (a).

Scale
1 inch = 8 feet
0 4 8



LANDREGAN STREET

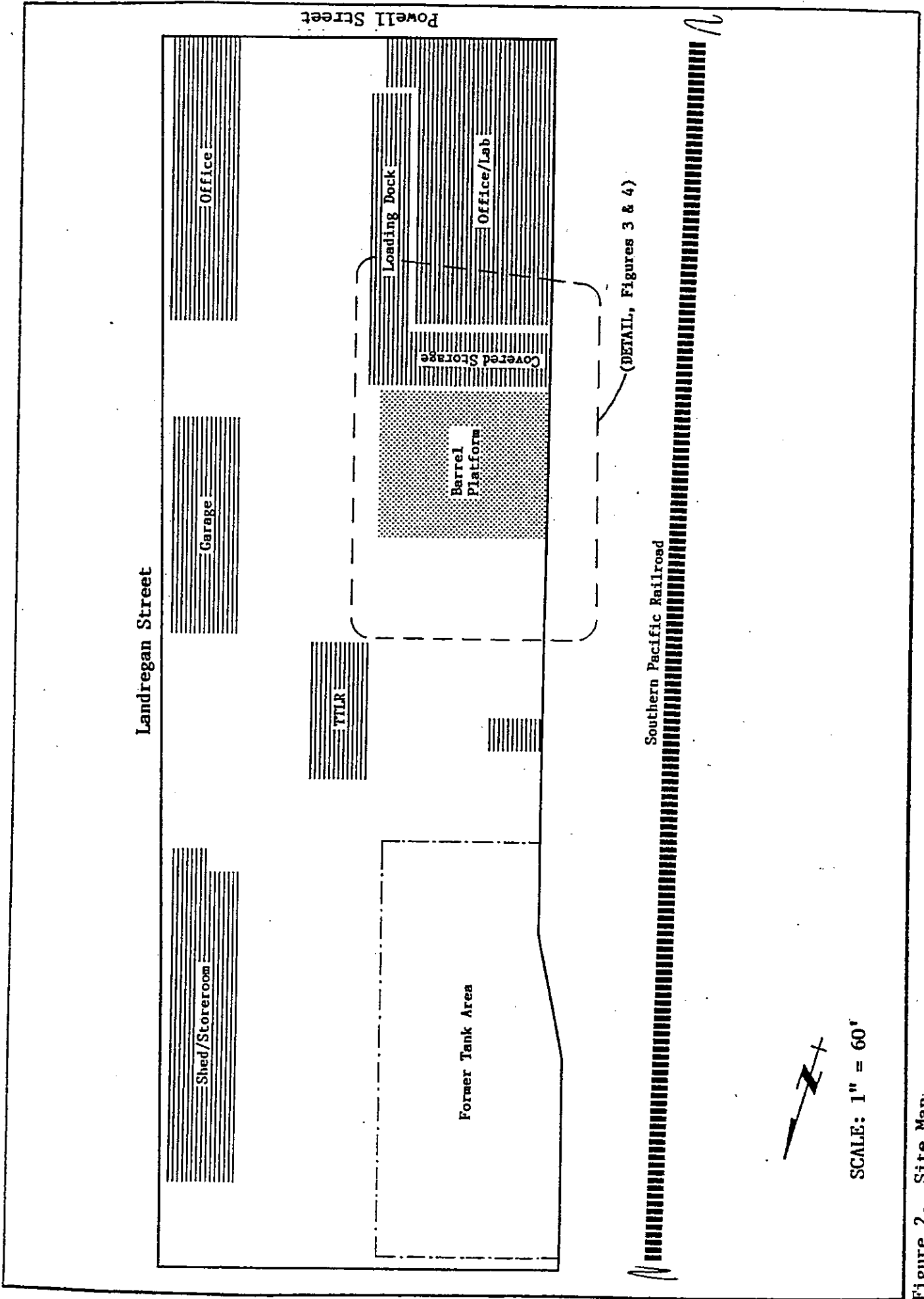
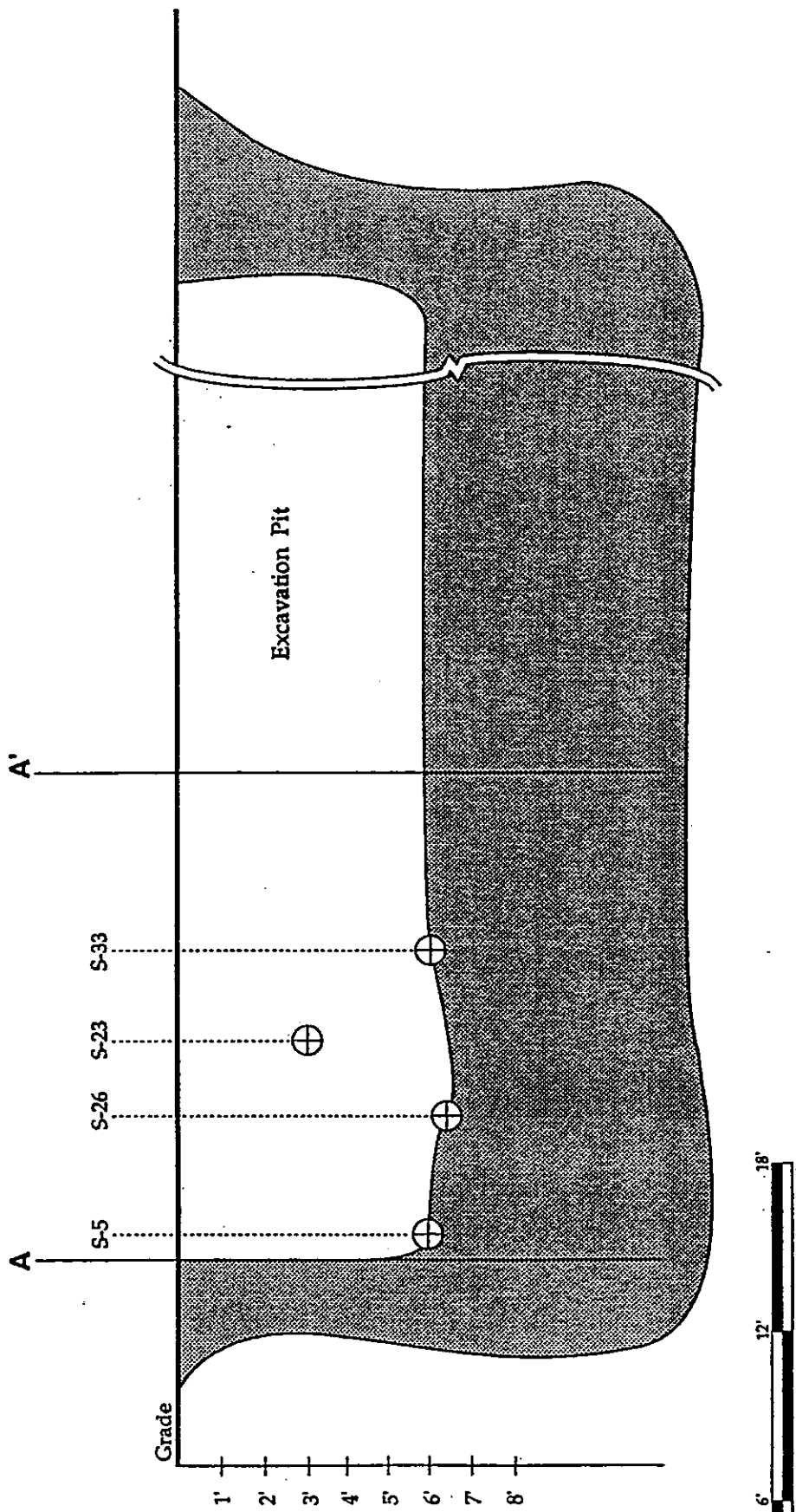


Figure 2. Site Map,
Former Chevron Asphalt Plant
1520 Powell Street, Emeryville, California



FIGURE

2

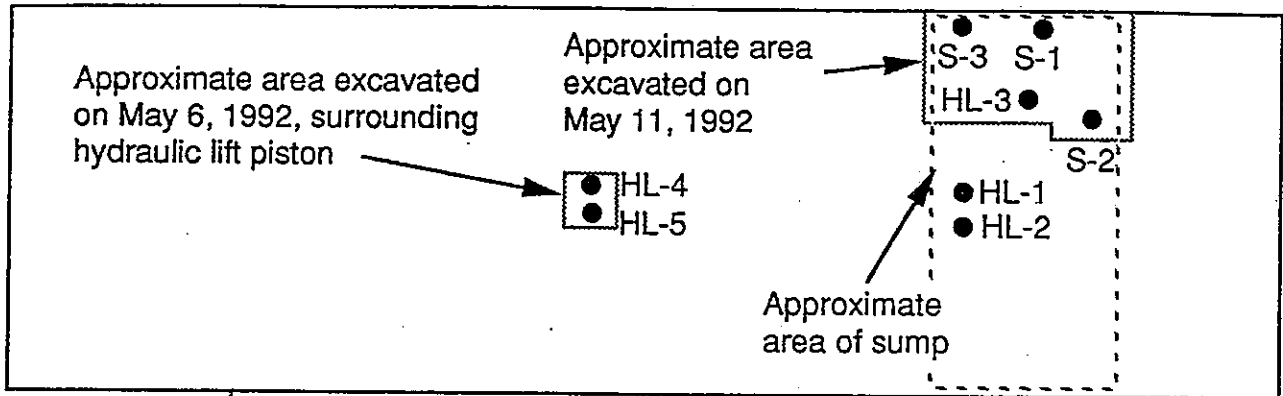
Cross-Section Through Selected Soil Sample Locations
Former Chevron Asphalt Plant and Terminal
Emeryville, California

Note: Horizontal Exaggeration is 10X Vertical Scale

1-045.44

WESTERN GEOLOGIC RESOURCES, INC.

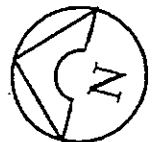
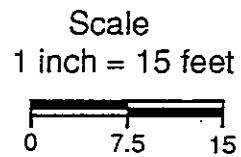
LANDREGAN STREET



Outer foundation wall of demolished garage

EXPLANATION

- — — Property line
- S-1 Approximate soil sample location



Project No. RC12003

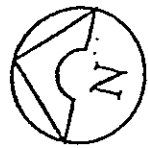
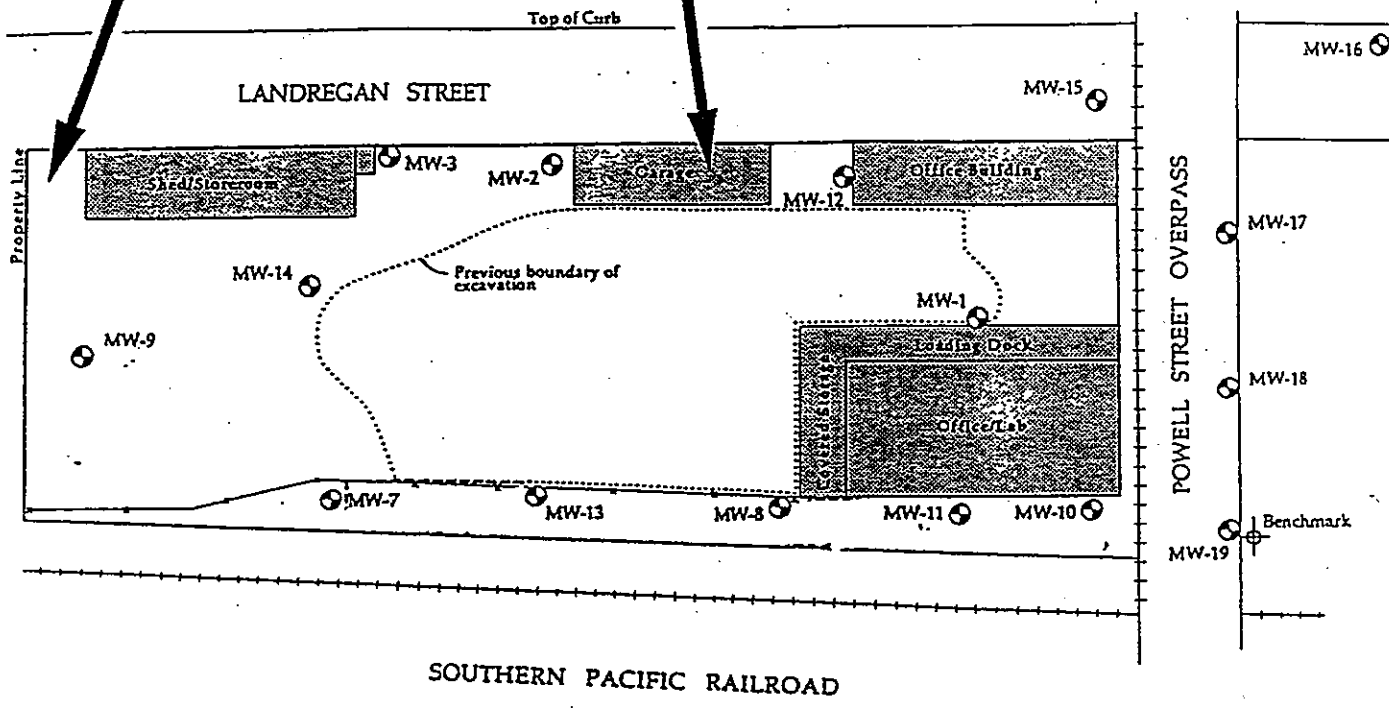
SOIL SAMPLE LOCATIONS
Former Chevron Asphalt Plant - Facility #1001067
1520 Powell Street
Emeryville, California

FIGURE

3

Area detailed in Figure 2

Area detailed in Figure 3



Site Plan Obtained From Western Geologic Resources (WGR),
Soil Sampling Report, May 17, 1992.



Proj. No. RC12003

SITE PLAN
Former Chevron Asphalt Plant - Facility #1001067
1520 Powell Street
Emeryville, California

FIGURE

1



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86880-2
CLIENT: Geraghty & Miller
CLIENT JOB NO.: RC12004

DATE RECEIVED: 10/08/92
DATE REPORTED: 10/20/92
CLIENT SAMPLE ID: SP3(1-3)
DATE SAMPLED: 10/07/92

CAM 17 METALS

Methods: EPA SW 846 6000 & 7000 Series
California Administrative Code Title 22

Compound		Results (mg/kg)	Detection Limit (mg/kg)
Antimony	(Sb)	7	5
Arsenic	(As)	13	1
Barium	(Ba)	240	5
Beryllium	(Be)	ND	0.5
Cadmium	(Cd)	1	1
Chromium	(Cr)	30	5
Cobalt	(Co)	10	10
Copper	(Cu)	40	10
Lead	(Pb)	210	5
Mercury	(Hg)	0.41	0.05
Molybdenum	(Mo)	ND	10
Nickel	(Ni)	40	10
Selenium	(Se)	ND	1
Silver	(Ag)	ND	0.5
Thallium	(Tl)	ND	5
Vanadium	(V)	30	10
Zinc	(Zn)	230	20

mg/kg = parts per million (ppm)

QAQC Summary: Spike Recovery Range: 84-109%
Duplicate RPD = < 22

Richard Srna, Ph.D.

Silvina P. Tranquillo (for)
Laboratory Manager

Certified Laboratories



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 86880-1
CLIENT: Geraghty & Miller
CLIENT JOB NO.: RC12004

DATE RECEIVED: 10/08/92
DATE REPORTED: 10/20/92
CLIENT SAMPLE ID: SP1(1-3)
DATE SAMPLED: 10/07/92

CAM 17 METALS
Methods: EPA SW 846 6000 & 7000 Series
California Administrative Code Title 22

Compound	Results (mg/kg)	Detection Limit (mg/kg)
Antimony (Sb)	ND	5
Arsenic (As)	7	1
Barium (Ba)	170	5
Beryllium (Be)	0.5	0.5
Cadmium (Cd)	ND	1
Chromium (Cr)	37	5
Cobalt (Co)	10	10
Copper (Cu)	30	10
Lead (Pb)	33	5
Mercury (Hg)	ND	0.05
Molybdenum (Mo)	ND	10
Nickel (Ni)	70	10
Selenium (Se)	ND	1
Silver (Ag)	ND	0.5
Thallium (Tl)	ND	5
Vanadium (V)	30	10
Zinc (Zn)	100	20

mg/kg = parts per million (ppm)

QAQC Summary: Spike Recovery Range: 84-109%
Duplicate RPD = < 22

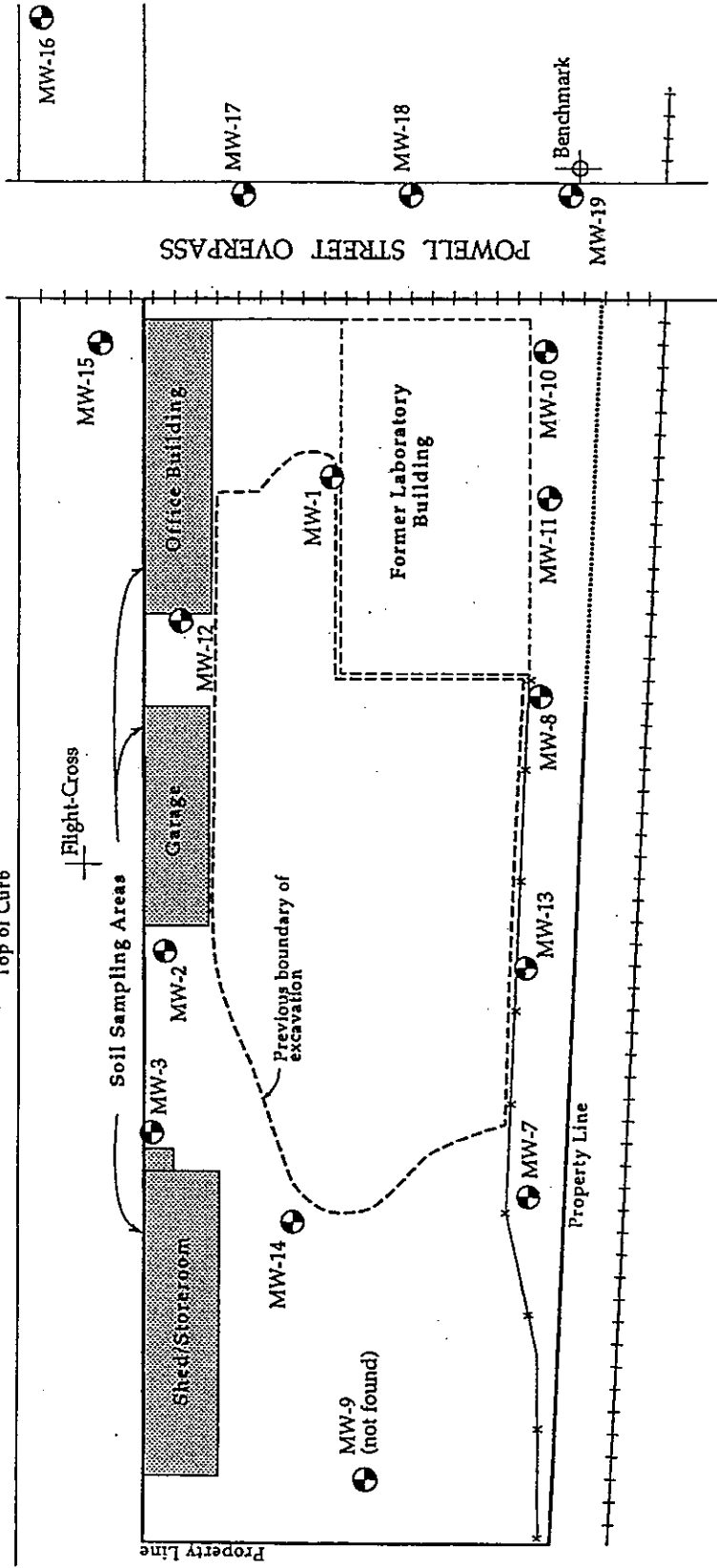
Richard Srna, Ph.D.

Delmina J. Langui (for)
Laboratory Manager

Certified Laboratories

LANDREGAN STREET

Top of Curb



SOUTHERN PACIFIC RAILROAD

4/91

EXPLANATION

● MW-8 Monitor Well location

Site Map with Soil Sampling Area
Former Chevron Asphalt Plant and Terminal
Emeryville, California

FIGURE

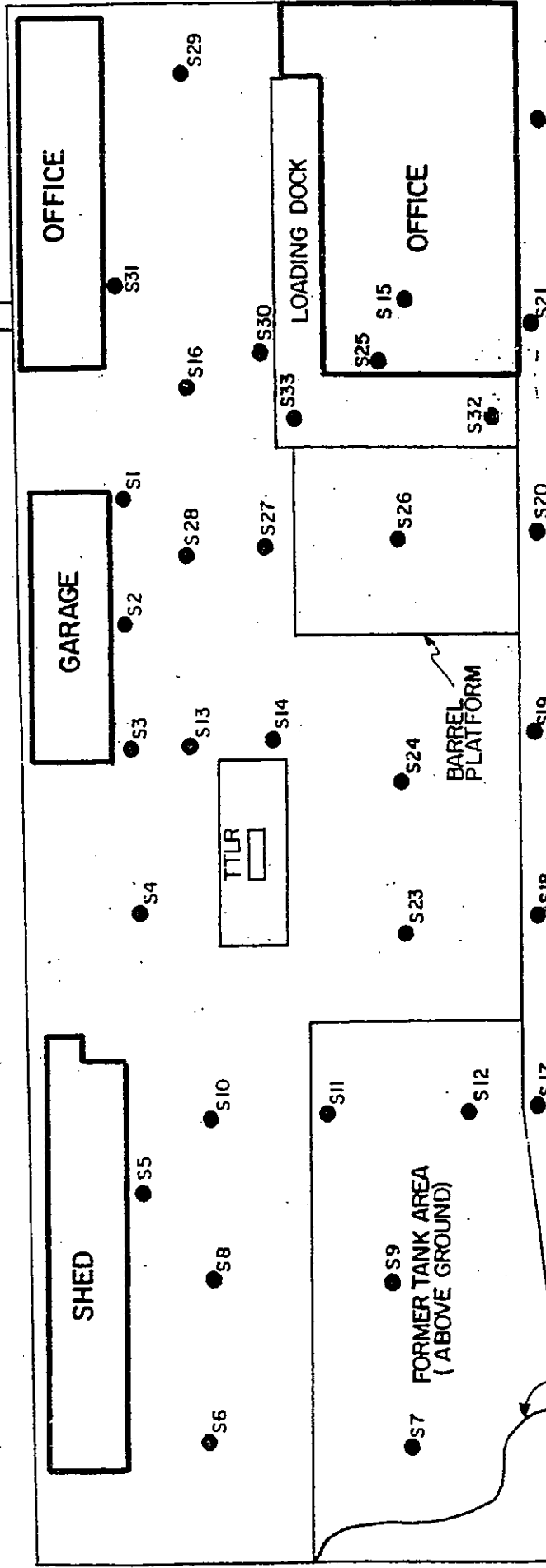
1

WESTERN GEOLOGIC RESOURCES, INC.

1-045.51

Reference:
 McKesson Environmental Services
 Groundwater Investigation
 Emeryville Terminal
 Emeryville California

LANDREGAN ST.



APPROX LIMIT OF MARSH

RAILROAD TRACKS

LEGEND

● SOIL SAMPLE LOCATION



0 FEET 60

Figure 2. Site Plan



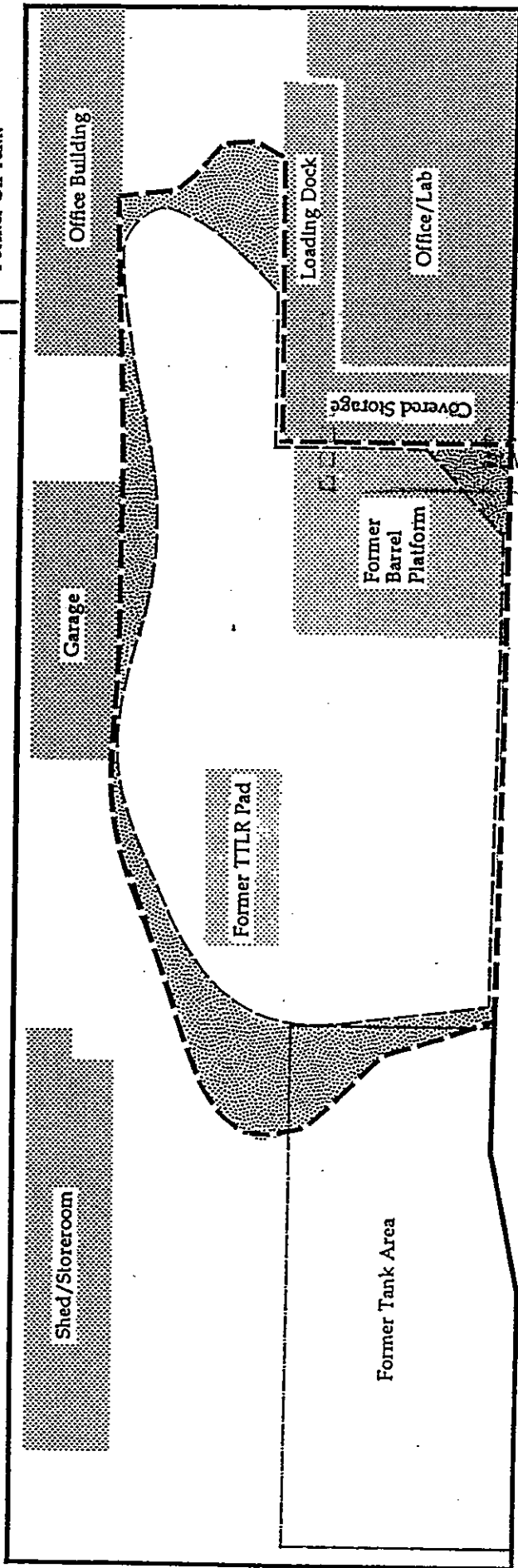
GROUNDWATER
 TECHNOLOGY, INC.
 1/85

CHEVRON USA, INC.
 EMERYVILLE, CALIFORNIA

DIETRICH POST REORDER NO. 116233

LANDREGAN STREET

Former Oil Tank



Southern Pacific Railroad



LEGEND

--- Boundary of original excavation plan, interpreted areas of >100 ppm Total Petroleum Hydrocarbons (TPH) as diesel concentration

--- Boundary of actual excavation

▨ Additional excavation area from original scope of work

Excavation of Soils Containing Hydrocarbons
Former Chevron Asphalt Plant and Terminal
Emeryville, California

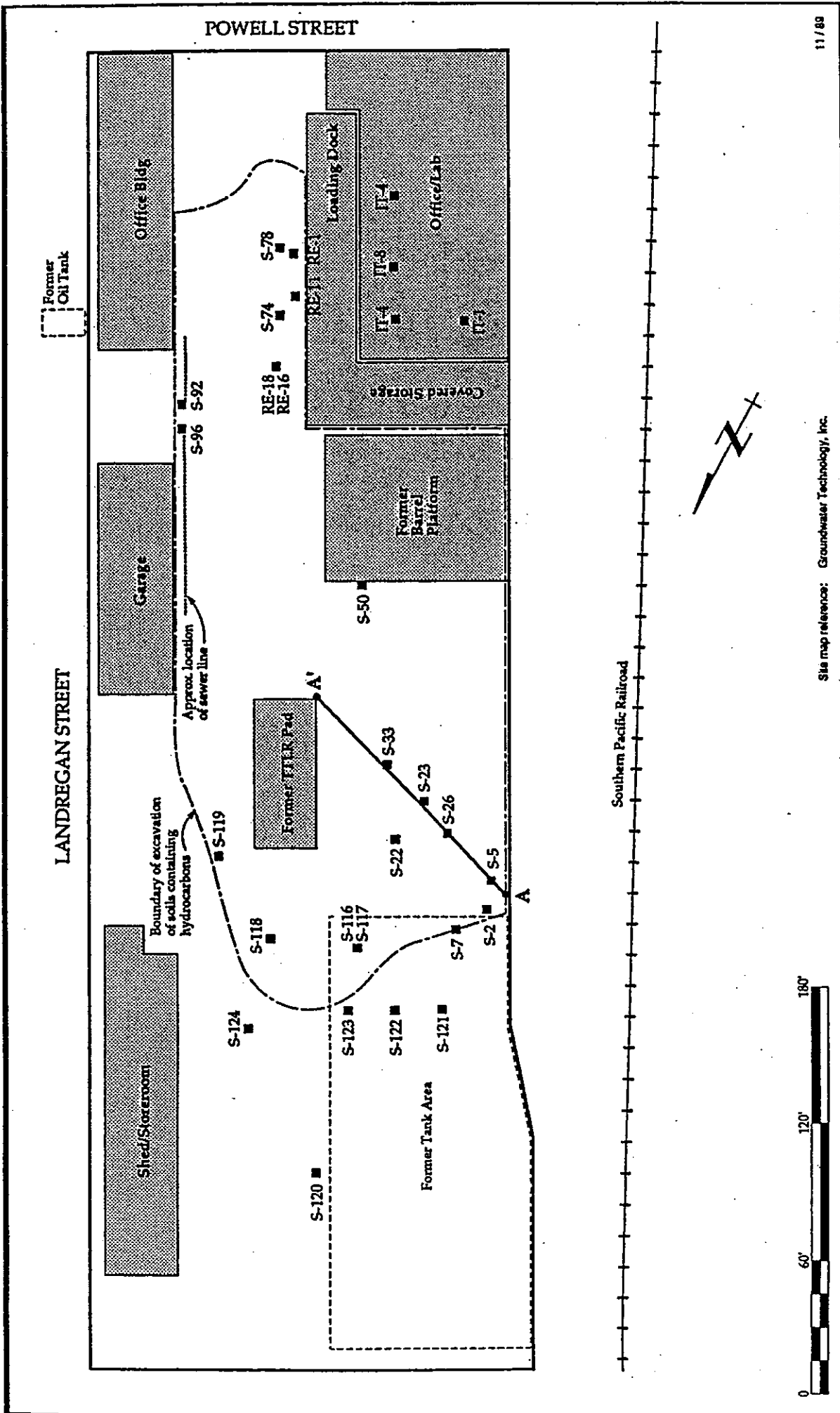
September 1989

FIGURE

2

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1-045.41



LEGEND

A ——— A' Cross-Section Location

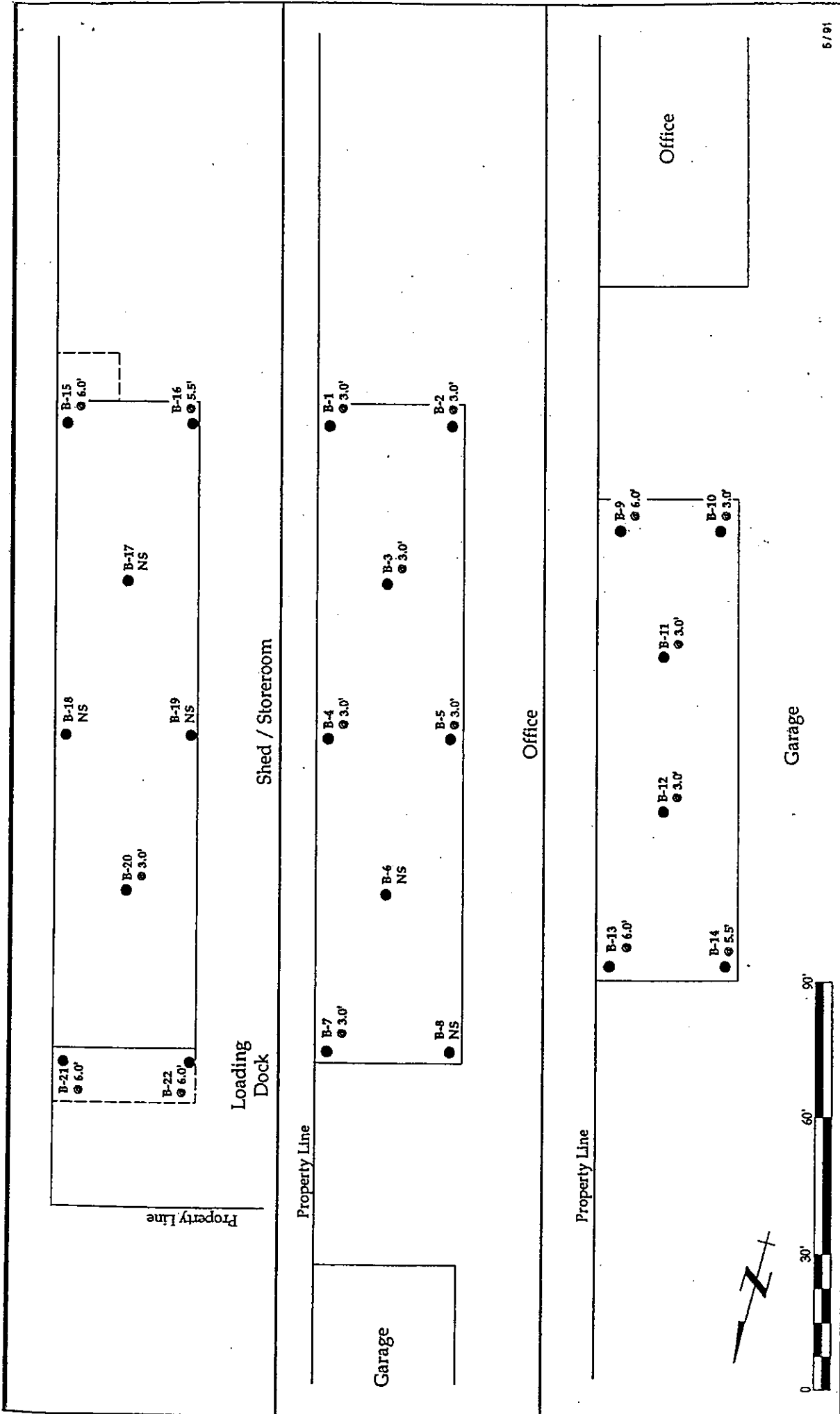
S-23 ■ Soil Sample Locations

FIGURE 1

**Location of Cross-Section Through Selected Soil Samples
Former Chevron Asphalt Plant and Terminal
Emeryville, California**

WESTERN GEOLOGIC RESOURCES, INC.

1-045.44



6/91

FIGURE

3

Actual Boring Locations
Former Chevron Asphalt Plant and Terminal
Emeryville, California

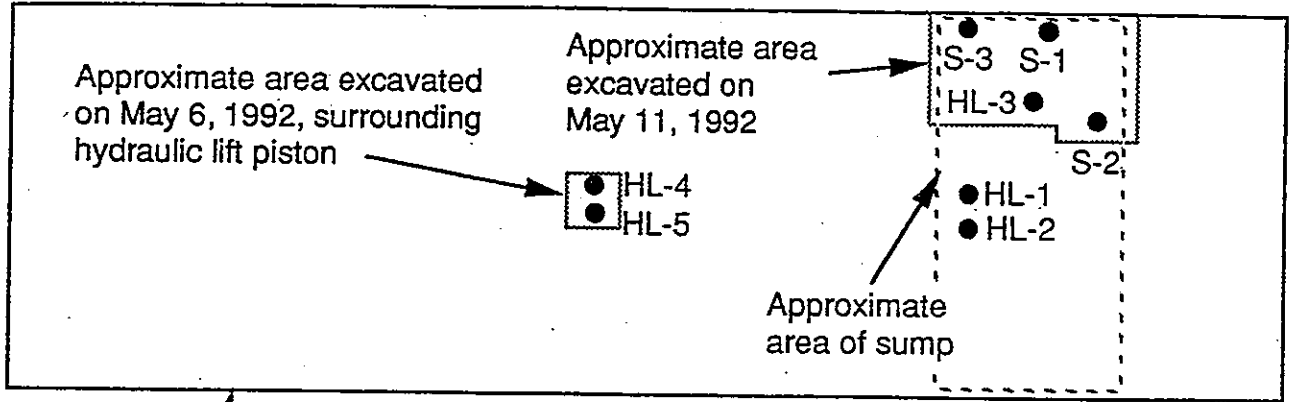
WESTERN GEOLOGIC RESOURCES, INC.

1-045.51

EXPLANATION

- Boring location and sample depth below floor
- 3.0'
- NS Not Sampled

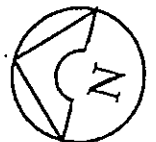
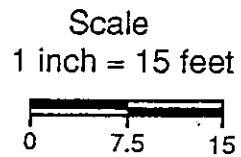
LANDREGAN STREET



Outer foundation wall of demolished garage

EXPLANATION

- Property line
- S-1 Approximate soil sample location



Project No. RC12003

SOIL SAMPLE LOCATIONS
Former Chevron Asphalt Plant - Facility #1001067
1520 Powell Street
Emeryville, California

FIGURE

3

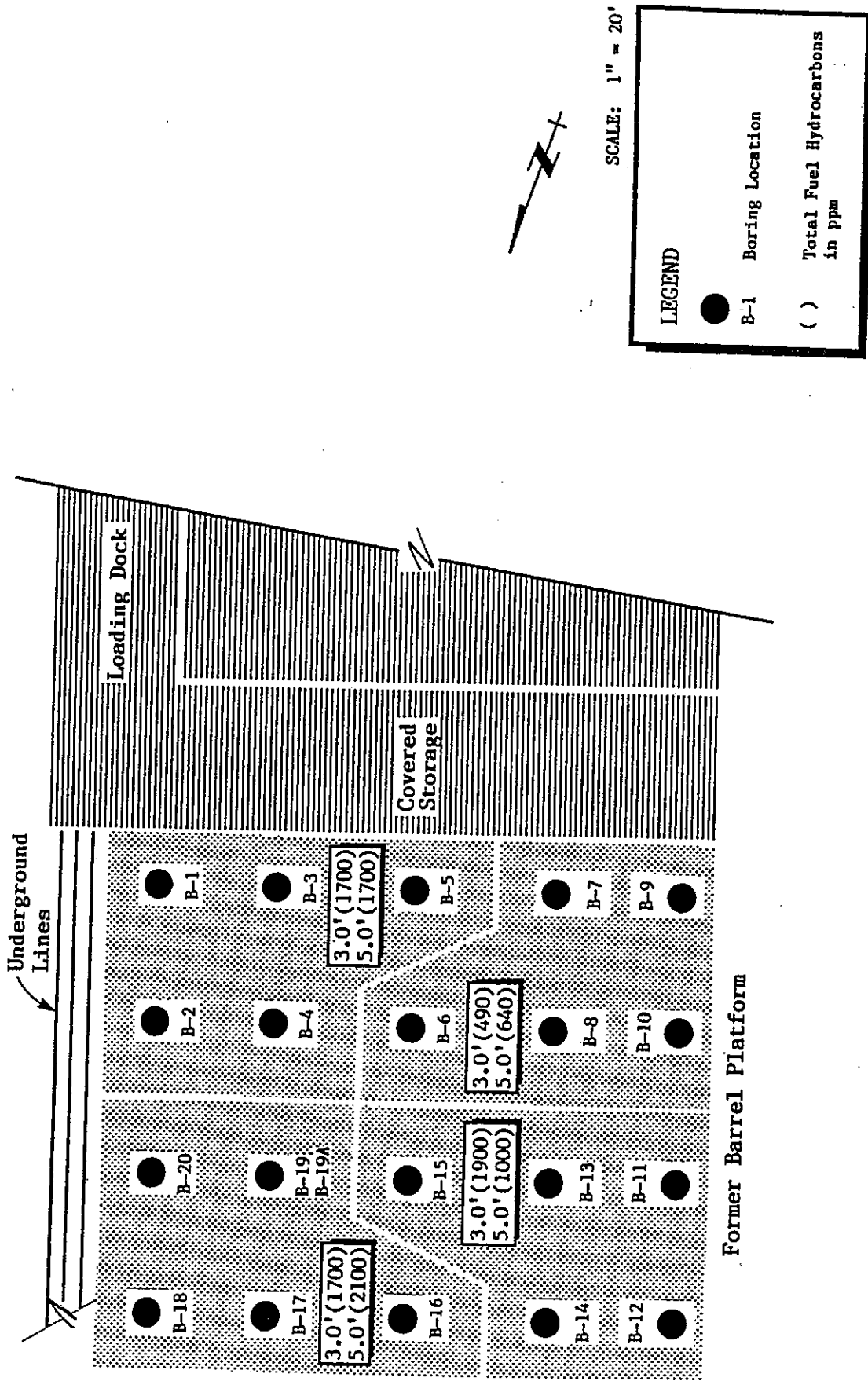
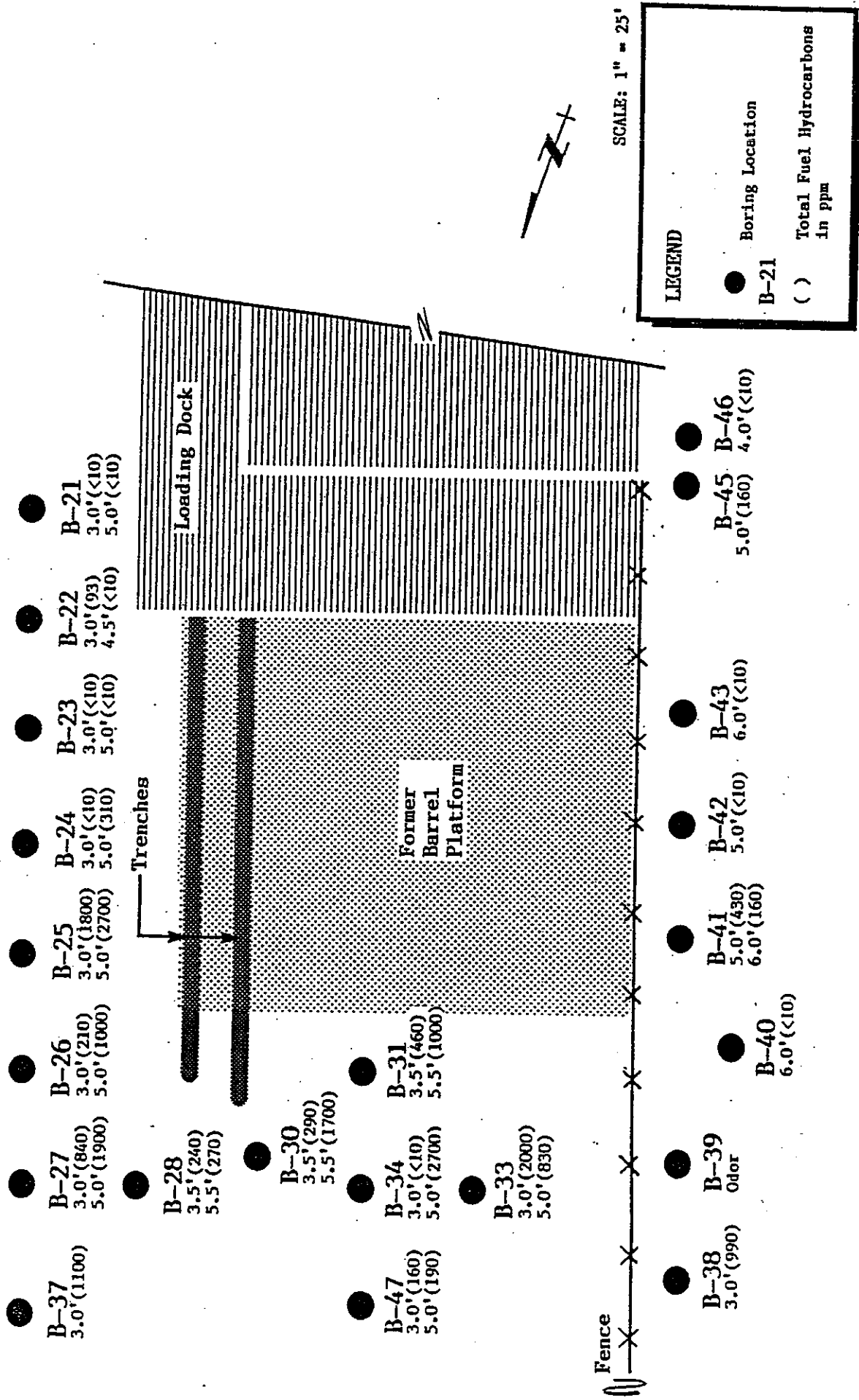
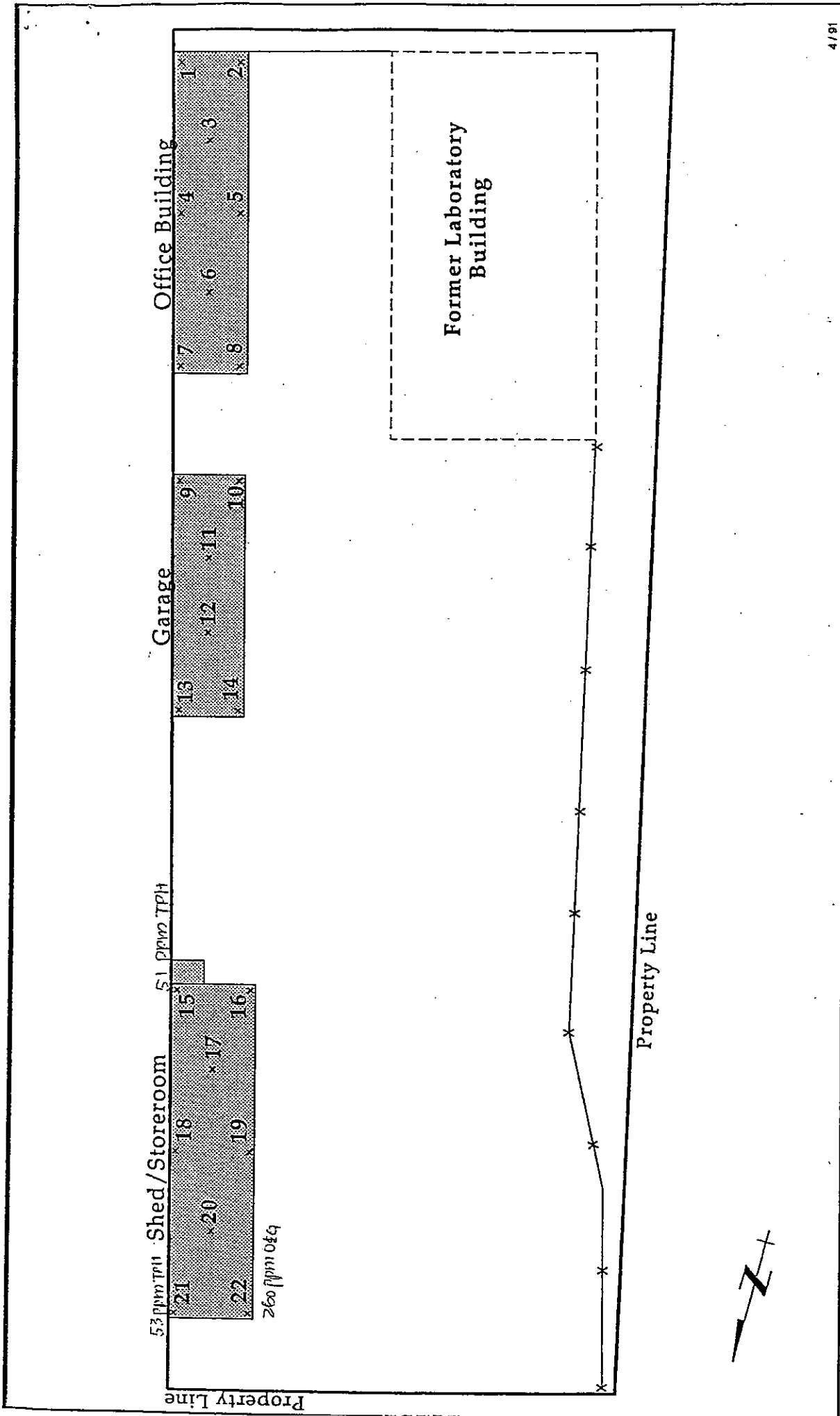


Figure 3. Boring Locations for B-1 through B-20; Total Fuel Hydrocarbons at Depths in Feet. Former Chevron Asphalt Plant 1520 Powell Street, Emeryville, CA 94608



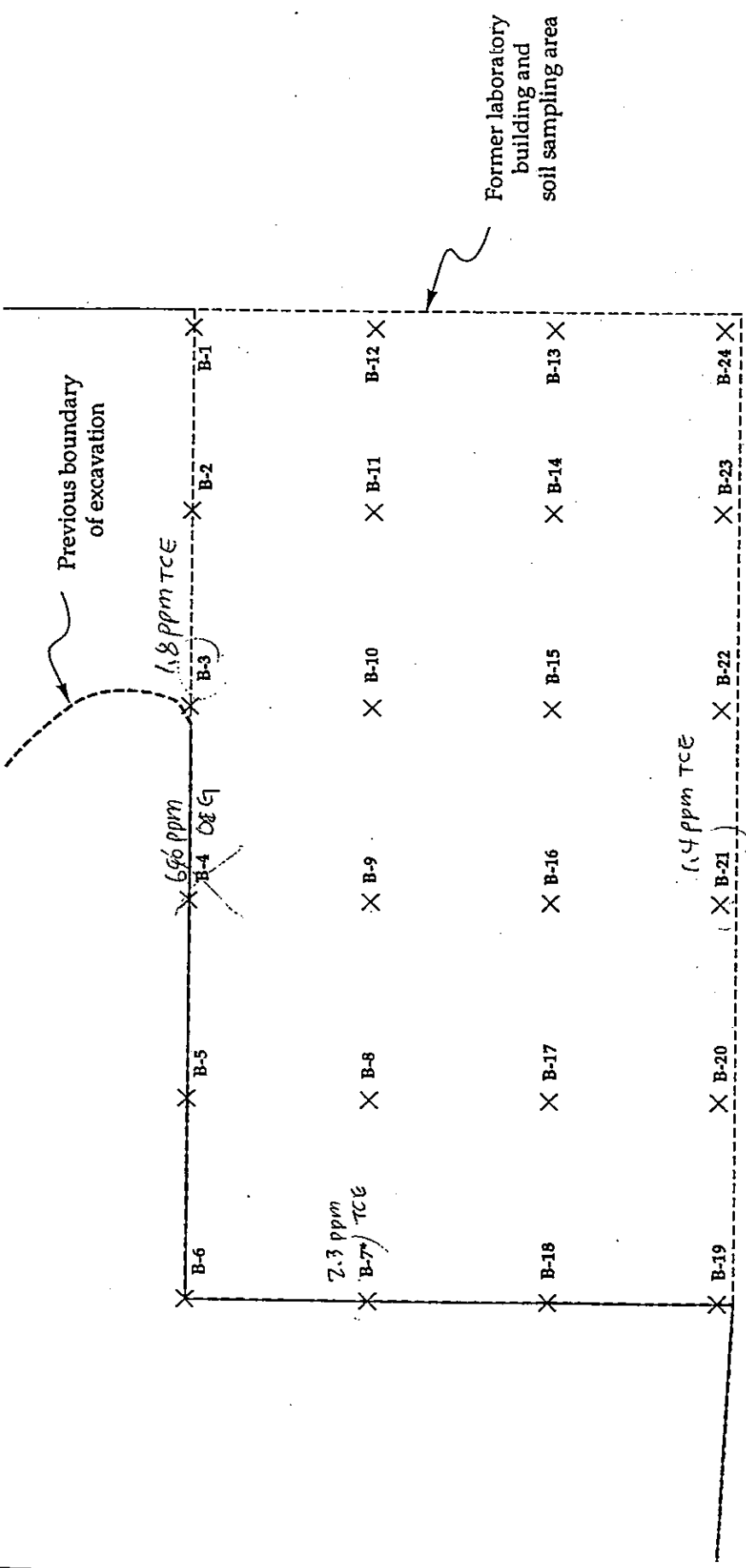
Source: HLA Groundwater Investigation
Emeryville Terminal 7/88

Figure 4. Boring Locations for B-21 through B-47;
Total Fuel Hydrocarbons at Depths in Feet.
Former Chevron Asphalt Plant
1520 Powell Street, Emeryville, California.



4/81

<p>NOT TO SCALE</p> <p>x Designated boring location</p>	<p>FIGURE</p> <h1 style="text-align: center;">2</h1> <p>Site Map with Accepted Boring Pattern Former Chevron Asphalt Plant and Terminal Emeryville, California</p>
<p>WESTERN GEOLOGIC RESOURCES, INC. 1-045.51</p>	



EXPLANATION

- × B-21 Boring location, drilled to 3.0 ft. below ground surface
- × B-7* Boring location, drilled to 4.0 ft. below ground surface

Soil Sampling Area and Boring Locations
Former Chevron Asphalt Plant and Terminal
Emeryville, California

FIGURE

2