



August 11, 1992

Jennifer Eberle
Alameda County Department of
Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

R: ~~STID #1107~~
Shell Service Station
29 Wildwood Avenue
Piedmont, California
WA Job #81-463-100

92 AUG 12 11 16 AM '92

94610

Dear Ms. Eberle:

On behalf of Shell Oil Company, Weiss Associates (WA) has prepared this letter in response to your June 29, 1992 letter to Dan Kirk of Shell requesting a subsurface investigation at the station referenced above (Figure 1). We have reviewed the results of previous subsurface investigations and quarterly ground water monitoring events to assess the scope of future additional investigations. A summary of the site background and our recommendations are presented below.

SITE BACKGROUND

In August 1984, EMCON Associates of San Jose, California drilled four soil borings and installed well E-4 (Figure 2). Petroleum hydrocarbons were detected in soil from three of the borings. No hydrocarbons were detected in soil samples from the borings for well E-4. Well E-4 is a flowing artesian well and is screened in a deeper water-bearing zone than the other site wells.

In September 1984, new fuel lines and three new single-walled fiberglass underground tanks were installed to replace the former steel fuel tanks.



QUESTIONS? CALL 800-238-5355 TOLL FREE.

2621632403

AIRBILL
PACKAGE
TRACKING NUMBER

2621632403

RECIPIENT'S COPY

From (Your Name) Please Print Scott Macleod Company		Your Phone Number (Very Important) () - () - ()		To (Recipient's Name) Please Print Jennifer Eberle Company		Recipient's Phone Number (Very Important) () - () - ()			
Street Address 		Department/Floor No. 		Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.) Alameda County Dept. of Inv. Health 30 Swan Way, Room 200		Department/Floor No. 			
City 		State 		City Oakland		State CA			
ZIP Required 		ZIP Required 		ZIP Required 94621		ZIP Required 			
YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)									
IF HOLD FOR PICK-UP, Print FEDEX Address Here Street Address City State ZIP Required									
PAYMENT 1 <input type="checkbox"/> Bill Sender 2 <input type="checkbox"/> Bill Recipient's FedEx Acct. No. 3 <input type="checkbox"/> Bill 3rd Party FedEx Acct. No. 4 <input type="checkbox"/> Bill Credit Card 5 <input type="checkbox"/> Cash/Check									
4 SERVICES (Check only one box)		5 DELIVERY AND SPECIAL HANDLING (Check services required)		6 PACKAGES WEIGHT in Pounds Only YOUR DECLARED VALUE		Emp. No. Date <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del. <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: X Date/Time Received FedEx Employee Number			
Priority Overnight (Delivery by next business morning) 11 <input type="checkbox"/> YOUR PACKAGING 16 <input checked="" type="checkbox"/> FEDEX LETTER* 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Economy Two-Day (Delivery by second business day †) 30 <input type="checkbox"/> ECONOMY		Standard Overnight (Delivery by next business afternoon, No Saturday delivery) 51 <input type="checkbox"/> YOUR PACKAGING 56 <input type="checkbox"/> FEDEX LETTER* 52 <input type="checkbox"/> FEDEX PAK* 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Government Overnight (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE Freight Service (for packages over 150 lbs.) 70 <input type="checkbox"/> OVERNIGHT FREIGHT** 80 <input type="checkbox"/> TWO-DAY FREIGHT**		1 <input type="checkbox"/> HOLD FOR PICK-UP (Fill in Box #) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 5 <input type="checkbox"/> 6 <input type="checkbox"/> DRY ICE lbs. 7 <input type="checkbox"/> OTHER SPECIAL SERVICE 8 <input type="checkbox"/> 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) 10 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (If offered) (Extra charge)		Total Total Total DIM SHIPMENT (Chargeable Weight) lbs. Received At <input type="checkbox"/> Regular Stop <input type="checkbox"/> Drop box <input type="checkbox"/> On-Call Stop <input checked="" type="checkbox"/> B.S.C. 5 L. Station		Federal Express Use Base Charges Declared Value Charge Other 1 Other 2 Total Charges REVISION DATE 2/92 PART #137204 FXCLM 6/92 FORMAT #126 126 © 1991-92 FEDEX PRINTED IN U.S.A.	



In June 1987, a former 550-gallon underground waste oil tank was removed. Blaine Tech Services (BTS) of San Jose, California collected a soil sample from the bottom of the tank excavation at eight ft depth. No hydrocarbons or volatile organic compounds (VOCs) were detected.

In October 1988, Pacific Telephone encountered hydrocarbon-bearing soil while excavating adjacent to the sidewalk along Grand Avenue northwest of the site's fuel storage tanks. Also in October 1988, ENSCO Environmental Services of Fremont, California, drilled soil borings B-1 through B-5 to determine whether soils adjacent to the existing fiberglass gasoline storage tanks contained hydrocarbons. Up to 6,500 ppm TPH-G were detected in soil samples collected at 10 ft depth from the east end of the tanks.

In July 1989, WA drilled nine soil borings and converted three of the borings into ground water monitoring wells MW-1, MW-2 and MW-3 (Figure 2). The drilling objective was to define the extent of hydrocarbons in soil and to assess whether hydrocarbons were in ground water beneath the site. TPH-G were detected in soil samples from four of the borings, at a maximum of 710 ppm at 3.5 ft depth in boring BH-B (Attachment A). Hydrocarbons were detected in ground water samples from wells MW-2 and MW-3, at a maximum of 3.9 ppm TPH-G and 0.38 ppm benzene in MW-3 (Attachment A). No hydrocarbons were detected in water samples from wells MW-1 and E-4.

In January 1990, WA drilled three soil borings downgradient of the site and converted two of them into ground water monitoring wells MW-4 and MW-5 (Figure 3). The drilling objective was to determine the extent of hydrocarbons in ground water cross- and downgradient of the site. No TPH-G were detected in any soil samples from the three borings, and no hydrocarbons were detected in ground water samples from either well. (A well was not installed in the third boring drilled south of the site because the soil was very fine grained and did not produce ground water.)

Due to the heavy traffic on Grand Avenue, it was not practical to drill soil borings or install ground water monitoring wells between wells MW-3 and MW-4 to precisely define the extent of hydrocarbons west of the site. However, no hydrocarbons were detected in soil from the boring for well MW-4, which is about 80 ft west of the site.



A review of all precision tank integrity test results available through May 1992 indicates the existing tanks and piping passed all tests. Although a failure was detected in the high level system in 1988, the couplings on the fill risers, which were the components of the high level system that failed the test, were subsequently repaired. The amount of product lost, if any, is unknown.

CONCLUSIONS AND RECOMMENDATIONS

WA has reviewed the results of previous subsurface investigations and quarterly ground water monitoring since 1984. Analytic data for soil and ground water samples collected from the site and precision tank integrity tests indicate that:

- Contrary to the comment in your letter, hydrocarbon concentrations in monitoring well MW-3 have not been increasing ^{their word} (steadily) since 1990 (Attachment A). In general, TPH-G and benzene concentrations have varied seasonally with water level fluctuations. Concentrations of TPH-G and benzene detected in MW-3 in the last two quarters are only slightly outside the range of the variations observed since monitoring began in 1989.
- Based on our review of the available tank testing data, no leaks have occurred in the existing tanks or product piping since 1984.
- To date, 16 soil borings and six ground water monitoring wells have been installed at the site. The soil borings and wells adequately define both the vertical and horizontal extent of hydrocarbons in the potential source areas and cross- and downgradient of the site.

~~WA does not recommend further investigation at this time since:~~

- Hydrocarbon concentrations appear relatively stable,
- The extent of hydrocarbons has been defined during previous investigations, and ^{in soil} maybe not in gas.
- No additional investigation is possible between wells MW-3 and MW-4.

We will continue to review quarterly ground water sampling results and may recommend additional work if site conditions change significantly.

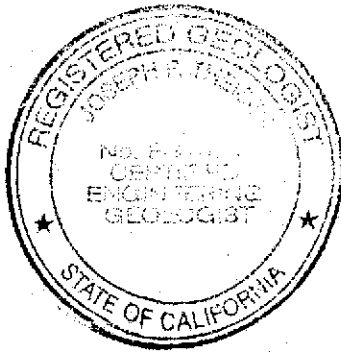
Jennifer Eberle
August 11, 1992

4

Weiss Associates



We appreciate this opportunity to provide hydrogeologic consulting services on behalf of Shell Oil Company. Please call us if you have any questions or comments.



Sincerely,
Weiss Associates

N. Scott MacLeod
Project Geologist

Joseph P. Theisen, C.E.G.
Senior Hydrogeologist

NSM/JPT:nsm

C:\WP51\SHELL\PIEDMONT\463L1JY2.WP

Attachments: A - Analytic Results for Soil and Ground Water

cc: Dan Kirk, Shell Oil Company, P.O. Box 5278, Concord, California 94520-9998
Richard Hiatt, Regional Water Quality Control Board - San Francisco Bay, 2101 Webster Street, Suite 500, Oakland, California 94612

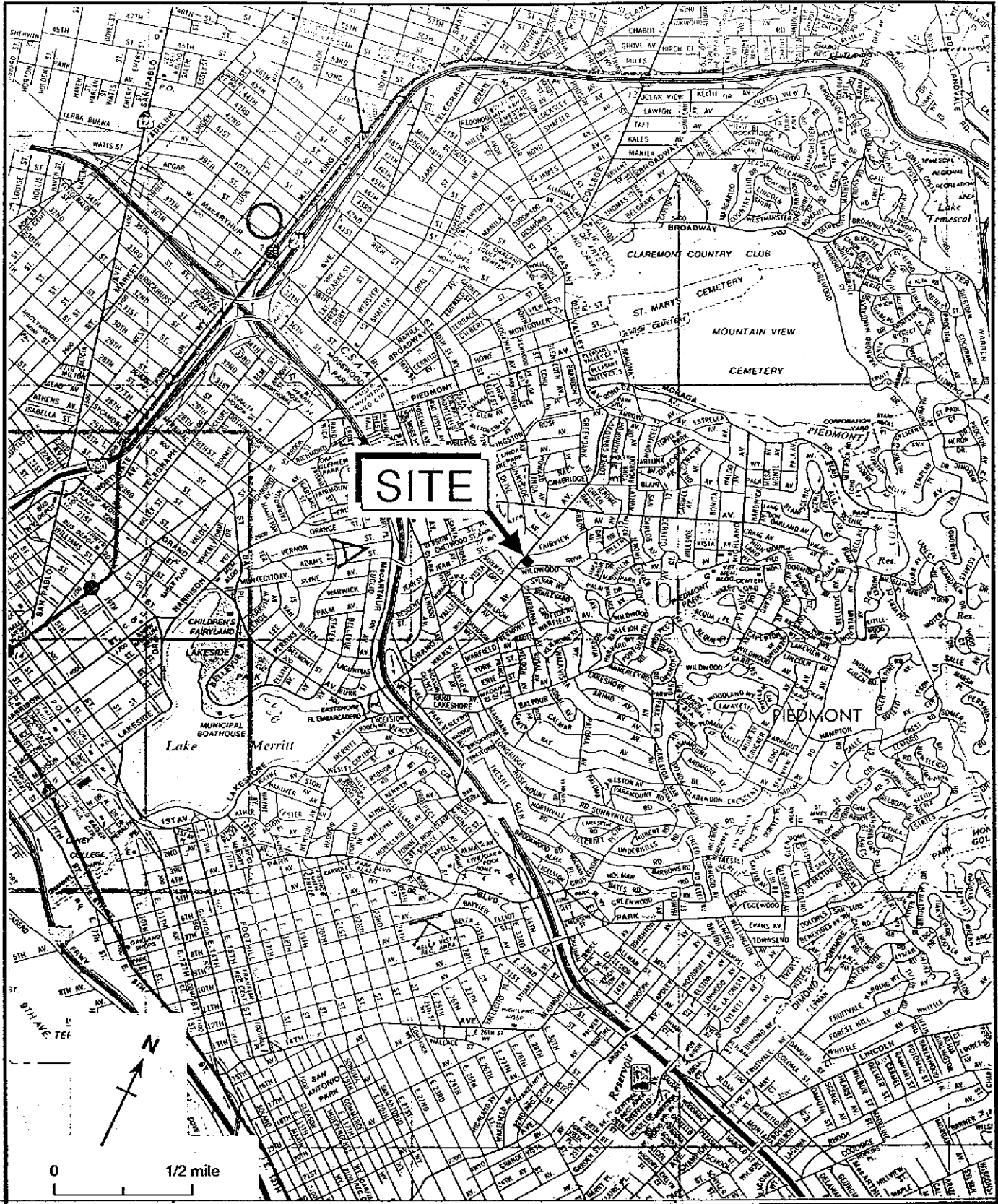
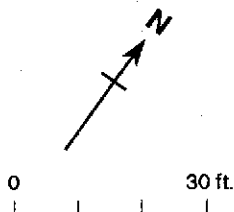
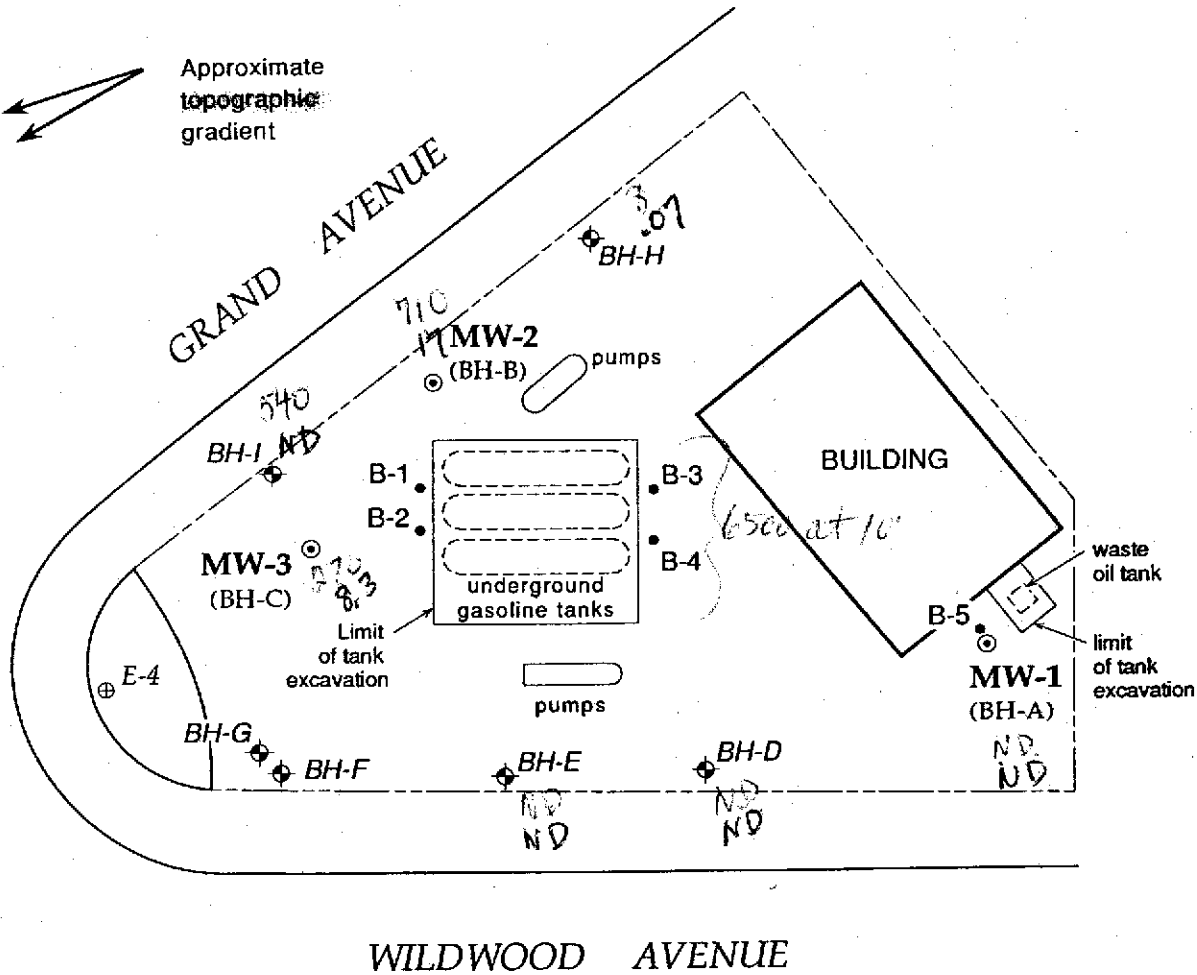


Figure 1. Site Location Map - Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California



Approximate topographic gradient



soil
TPH-g (ppm)
benz (ppm)

EXPLANATION	
⊙ MW-1 (BH-A)	Monitoring well; corresponding boring ID in parentheses
⊕ BH-D	WA soil boring
• B-4	Soil boring drilled for previous investigation
⊕ E-4	Second-Zone monitoring well

Figure 2. Site Map - Shell Service Station, 29 Wildwood Avenue, Piedmont, California

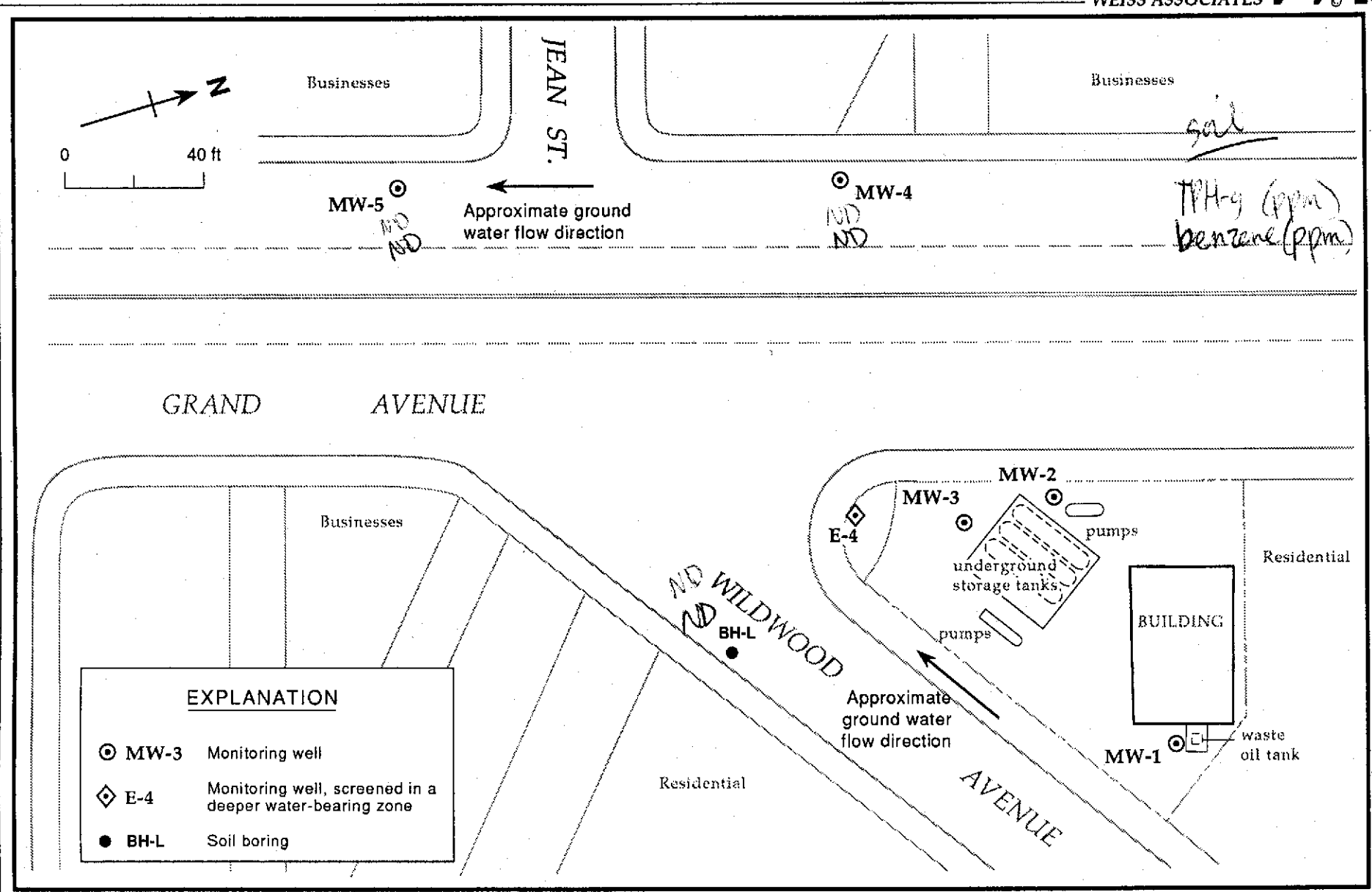


Figure 3. Offsite Soil Boring and Monitoring Well Locations - Shell Service Station, WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

ATTACHMENT A

ANALYTIC RESULTS FOR SOIL AND GROUND WATER

TABLE 1. Analytic Results for Soil - Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Soil Boring (Well ID)	Sample Depth (ft)	Date Sampled	Analytic Method	Sat/Unsat	parts per million (mg/kg)				
					TPH-G	B	E	T	X
BH-J (MW-4)	2.4	1/23/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	5.2	1/23/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	18.2	1/23/90	8015/8020	Sat	<1	<0.0025	<0.0025	<0.0025	<0.0025
BH-K (MW-5)	3.2	1/23/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	5.2	1/23/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	18.0	1/23/90	8015/8020	Sat	<1	<0.0025	<0.0025	<0.0025	<0.0025
BH-L	3.2	1/24/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	6.4	1/24/90	8015/8020	Unsat	<1	<0.0025	<0.0025	<0.0025	<0.0025
	15.2	1/24/90	8015/8020	Sat (?)	<1	<0.0025	<0.0025	<0.0025	<0.0025
	25.2	1/24/90	8015/8020	Sat (?)	<1	<0.0025	<0.0025	<0.0025	<0.0025

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline
 B = Benzene
 E = Ethylbenzene
 T = Toluene
 X = Xylenes

Sat = Saturated soil sample
 Unsat = Unsaturated soil sample
 <n = not detected at detection limit of n parts per million

Analytical Laboratory:

National Environmental Testing, Inc. (NET), Santa Rosa, California

Analytic Methods:

8015 = Modified EPA Method 8015 for TPH-G
 8020 = EPA Method 8020 for BETX



TABLE 2. Analytic Results for Soil - Shell Service Station, WIC # 204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Boring ID	Sample Depth (ft)	Date Sampled	Analytic Method	Sat/Unsat	-----ppm-----					Total Lead	Organic Lead
					TPPH	B	E	T	X		
BH-A(MW-1) composite composite	3.6	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	27	<1
BH-B(MW-2) composite	1.0	7/5/89	8015/8020	Unsat	11	0.19	0.1	<0.1	<0.3	---	---
	3.5	7/5/89	8015/8020	Unsat	710	3	17	5	71	---	---
	7.4	7/5/89	8015/8020	Sat	5	<0.05	<0.1	<0.1	<0.3	---	---
	10.5	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	14.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	25	<1
BH-C(MW-3) composite	3.5	7/5/89	8015/8020	Unsat	72	1.3	0.2	0.3	0.7	---	---
	5.5	7/5/89	8015/8020	Sat	270	1.2	8.3	3.1	42.	---	---
	9.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	34	<1
BH-D composite	2.5	7/5/89	8015/8020	Unsat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	6.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	9.5	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	15.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	26	<1
BH-E composite	2.0	7/5/89	8015/8020	Unsat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	5.8	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	28	<1
BH-H composite	3.5	7/5/89	8015/8020	Sat	8.	0.07	<0.1	<0.1	<0.3	---	---
	7.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
	---	7/5/89	6010/LUFT	---	---	---	---	---	---	32	<1

--Table 2 continues on next page--



TABLE 2. Analytic Results for Soil - Shell Service Station, WIC # 204-6001-0109, 29 Wildwood Avenue, Piedmont, California (continued)

Boring ID	Sample Depth (ft)	Date Sampled	Analytic Method	Sat/Unsat	TPPH	B	E	T	X	Total Lead	Organic Lead
BH-1	4.0	7/5/89	8015/8020	Sat	540	<1	<4	<2	<10	---	---
	7.5	7/5/89	8015/8020	Sat	29	<0.2	<0.2	<0.1	<0.3	---	---
	10.0	7/5/89	8015/8020	Sat	<5	<0.05	<0.1	<0.1	<0.3	---	---
composite	---	7/5/89	6010/LUFT	---	---	---	---	---	---	24	<1

Abbreviations:

TPPH = Total Purgeable Petroleum Hydrocarbons
 B = Benzene
 E = Ethylbenzene
 T = Toluene
 X = Xylenes
 --- = Not analyzed or not applicable
 Sat = Saturated soil sample
 Unsat = Unsaturated soil sample

Analytic Laboratory:

All samples were analyzed by International Technology Analytical Services, San Jose, California

Analytic Methods:

8015 = Modified EPA Method 8015, gas chromatography/flame ionization for TPPH
 8020 = EPA Method 8020, gas chromatography/photoionization for BETX
 6010 = EPA method 6010 induction coupled Plasma, for total Lead
 LUFT = California Regional Water Quality Control Board Leaking Underground Fuel Tank Manual Method, atomic absorption for organic lead

TABLE 3. Analytic Results for Ground Water, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	HVOCs
			-----parts per million (mg/L)-----					
MW-1	07/12/89 ^a	2.76	<0.05	<0.0005	<0.001	<0.001	<0.003	b
	01/30/90	3.10	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/27/90	3.24	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/31/90	4.26	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/30/90	4.25	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	01/31/91	3.66	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/30/91	3.46	<0.05	0.0008	0.0006	<0.0005	<0.0012	---
	07/30/91	4.14	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/29/91	3.96	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
MW-2	07/12/89 ^a	3.66	0.060	0.0027	<0.001	<0.001	<0.003	b
	01/30/90	3.49	<0.05	0.0066	0.00054	<0.0005	0.00093	---
	04/27/90	3.79	0.060	0.0021	<0.0005	<0.0005	<0.0005	---
	07/31/90	4.03	0.070	0.0015	<0.0005	<0.0005	<0.0005	---
	10/30/90	4.21	0.070	<0.0005	<0.0005	0.0007	0.0016	---
	01/31/91	4.09	0.080	<0.0005	0.0009	<0.0005	0.0019	---
	04/30/91	3.95	0.10	0.0059	0.0007	0.0006	0.0020	---
	07/30/91	4.07	<0.05	<0.0005	<0.0005	<0.0007	<0.0005	---
	10/29/91	4.11	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
MW-3	07/12/89 ^a	3.83	3.9	0.38	0.099	0.041	0.030	c
	01/30/90	3.24	5.5	0.44	0.079	0.035	0.13	---
	04/27/90	4.02	4.5	0.31	0.037	0.026	0.11	---
	07/31/90	4.31	3.5	0.21	0.0084	0.017	0.062	---
	10/30/90	4.52	2.3	0.061	<0.0005	<0.0005	0.028	---
	01/31/91	4.33	4.1	0.30	0.019	0.020	0.081	---
	04/30/91	3.79	3.8	0.370	0.0086	0.019	0.060	---
	07/30/91	4.37	3.3	0.160	0.015	0.013	0.087	---
	10/29/91	4.00	1.0	0.035	0.0029	0.0028	0.0081	---
MW-4	01/31/90	4.50	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/27/90	3.62	0.13 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/31/90	4.19	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/30/90	4.19	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	01/31/91	4.49	0.05 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/30/91	4.02	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	e
	07/30/91	4.39	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
10/29/91	3.75	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---	
MW-5	01/31/90	7.12	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/27/90	4.19	0.21 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/31/90	4.09	0.090	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/30/90	4.39	0.10	0.0008	0.0006	0.0007	0.0014	---
	01/31/91	4.49	0.080 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---

--Table 3 continues on next page --



TABLE 3. Analytic Results for Ground Water, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X	HVOCs
			-----parts per million (mg/L)-----					
E-4	04/30/91	4.27	0.09	<0.0005	<0.0005	<0.0005	<0.0005	f
	07/30/91	4.37	0.09	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/29/91	3.79	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/12/89 ^a	g	<0.05	<0.0005	<0.001	<0.001	<0.003	---
	01/31/90	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/27/90	g	0.12 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/31/90	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/30/90	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	01/31/91	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/30/91	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	b
	07/30/91	g	<0.05	<0.0005	<0.0005	0.0006	<0.0005	---
10/29/91	g	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---	
Trip Blank	07/12/89 ^a		<0.05	<0.0005	<0.001	<0.001	<0.003	---
	01/31/90		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/27/90		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/31/90		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	10/30/90		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	01/31/91		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	04/30/91		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
	07/30/91		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
10/29/91		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---	
Bailer Blank	04/27/90		0.11 ^d	<0.0005	<0.0005	<0.0005	<0.0005	---
	01/31/91		<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---
DHS MCLs			NE	0.001	0.680	0.10 ^h	1.750	i

-- Table 3 continues on next page --

TABLE 3. Analytic Results for Ground Water, Shell Service Station WIC #204-6001-0109, 29 Wildwood Avenue, Piedmont, California (continued)

Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Modified EPA Method 8015
B = Benzene by EPA Method 602 or 8020
E = Ethylbenzene by EPA Method 602 or 8020
T = Toluene by EPA Method 602 or 8020
X = Xylenes by EPA Method 602 or 8020
HVOCs = Halogenated volatile organic compounds by EPA Method 601 or 624
--- = Not analyzed
NE = Not established
DHS MCLs = California Department of Health Services maximum contaminant levels for drinking water
<n = Not detected above detection limit of n ppm

Notes:

a = Analyzed by International Technology Analytical Services, Inc., San Jose, California.
b = No HVOCs detected.
c = BETX detected at 0.41, 0.097, 0.036 and 0.30 ppm, respectively, by EPA Method 624.
d = Non-gasoline peak reported as TPH-G by Modified EPA Method 8015.
e = 0.015 ppm tetrachloroethene (PCE), 0.0041 ppm trichloroethene (TCE) and 0.0034 ppm trans-1,2-dichloroethene (DCE) detected
f = 0.220 ppm PCE, 0.022 ppm TCVE and 0.017 ppm DCE detected
g = Artesian well; potentiometric surface above top-of-casing elevation.
h = DHS recommended action level for drinking water; MCL not established.
i = DHS MCLs for PCE = 0.005 ppm; TCE = 0.005 ppm; DCE = 0.01 ppm.

Analytical Laboratory:

National Environmental Testing Pacific, Inc., Santa Rosa, California

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SHELL OIL COMPANY
29 Wildwood Avenue, Piedmont, California

Sample Type: Water

Units: mg/l (ppm), unless otherwise noted

Sample Designation	Sample Date	TPH as Gasoline <i>ppb</i>	Benzene <i>ppb</i>	Toluene <i>ppb</i>	Ethyl-benzene	Total Xylenes	Tetra-chloro-ethene	Trichloro-ethene	Dichloro-ethene
MW-1	04/30/91	ND	0.0008 <i>.8</i>	ND	0.0006	0.0012	--	--	--
	07/30/91	ND	ND	ND	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	ND	ND	ND	ND	ND	--	--	--
	04/14/92	0.07 <i>70</i>	0.016 <i>16</i>	ND	0.0031	0.0021	--	--	--
MW-2	04/30/91	0.10	0.0059	0.0006	0.0007	0.0020	--	--	--
	07/30/91	ND	ND	ND	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	ND	0.00084	ND	0.00041	0.00048	--	--	--
	04/14/92	ND	ND	ND	ND	ND	--	--	--
MW-3	04/30/91	3.8	0.370	0.019	0.0086	0.06	--	--	--
	07/30/91	3.3	0.160	0.013	0.015	0.087	--	--	--
	10/29/91	1.0	0.035	0.0028	0.0029	0.0081	--	--	--
	01/20/92	6.9	0.38	0.018	0.047	0.048	--	--	--
	04/14/92	6.0 <i>6,000</i>	0.48 <i>480</i>	0.038	0.041	0.055	--	--	--
MW-4	04/30/91	ND	ND	ND	ND	ND	0.015	0.0041	0.0034
	07/30/91	ND	ND	ND	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	ND	ND	ND	ND	ND	--	--	--
	04/14/92	ND	ND	ND	ND	ND	--	--	--

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SHELL OIL COMPANY
29 Wildwood Avenue, Piedmont, California

Sample Type: Water

Units: mg/l (ppm), unless otherwise noted

Sample Designation	Sample Date	TPH as Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Tetra-chloro-ethene	Trichloro-ethene	Dichloro-ethene
MW-5	04/30/91	0.09	ND	ND	ND	ND	0.220	0.022	0.017
	07/30/91	0.09	ND	ND	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	ND	ND	ND	ND	ND	--	--	--
	04/14/92	ND**	ND	ND	ND	ND	--	--	--
E-4	04/30/91	ND	ND	ND	ND	ND	--	--	--
	07/30/91	ND	ND	0.0006	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	ND	ND	ND	ND	ND	--	--	--
	04/14/92	ND	ND	ND	ND	ND	--	--	--
Trip Blank	04/30/91	ND	ND	ND	ND	ND	--	--	--
	07/30/91	ND	ND	ND	ND	ND	--	--	--
	10/29/91	ND	ND	ND	ND	ND	--	--	--
	01/20/92	--	--	--	--	--	--	--	--
	04/14/92	ND	ND	ND	ND	ND	--	--	--

ND = Not detected.

** = The analysis Petroleum Hydrocarbons as Gasoline shows several unknown peaks.