

**ARCO Service Station 4931
731 W. MacArthur Boulevard
Oakland**

7/05/89

BRIEF HISTORY

- A super unleaded product loss was reported to have occurred in November 1982. To our knowledge the quantity of product lost is unknown.
- A soil and groundwater investigation which involved the installation of four groundwater monitoring wells was conducted in December 1982.
- Four additional groundwater monitoring wells were installed by Groundwater Technology, Inc. (GTI) in March 1983.
- Emcon Associates issued a report dated June 18, 1986 discussing groundwater conditions at the site. Emcon Associates recommended the installation of four additional groundwater monitoring wells. (Refer to Emcon Associates' report dated June 18, 1986.)
- In December 1987, four groundwater monitoring wells were installed to further define the extent of the soil and groundwater contamination. (Refer to Pacific Environmental Group, Inc.'s report dated January 20, 1988.)
- The groundwater monitoring wells were inspected periodically for depth to water measurements and for the presence of separate phase product from December 1982 through October 1988.
- A quarterly groundwater sampling program was implemented on March 21, 1989.

WORK DONE THIS PERIOD

- A report presenting the findings of the first quarter groundwater sampling was issued by GeoStrategies Inc. on April 20, 1989.
- Groundwater samples were collected from the monitoring wells on May 24, 1989.
- ~~Groundwater samples were collected from the monitoring wells on a weekly basis.~~

GROUNDWATER MONITORING

- Eleven groundwater monitoring wells are located at the site. Separate phase product is currently observed in groundwater monitoring well A-8. Groundwater is encountered at approximate depths of 6-9 feet below grade.

GROUNDWATER SAMPLING

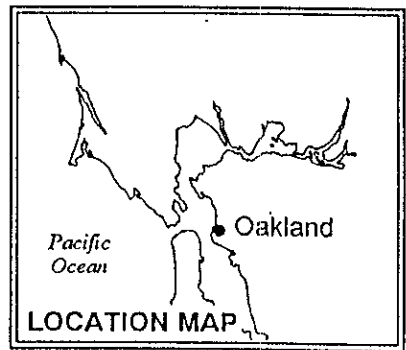
- The groundwater monitoring wells were most recently sampled on May 24, 1989. The results of this sampling event will be presented in the pending quarterly technical report. The historical analytical data is presented in Table 1.

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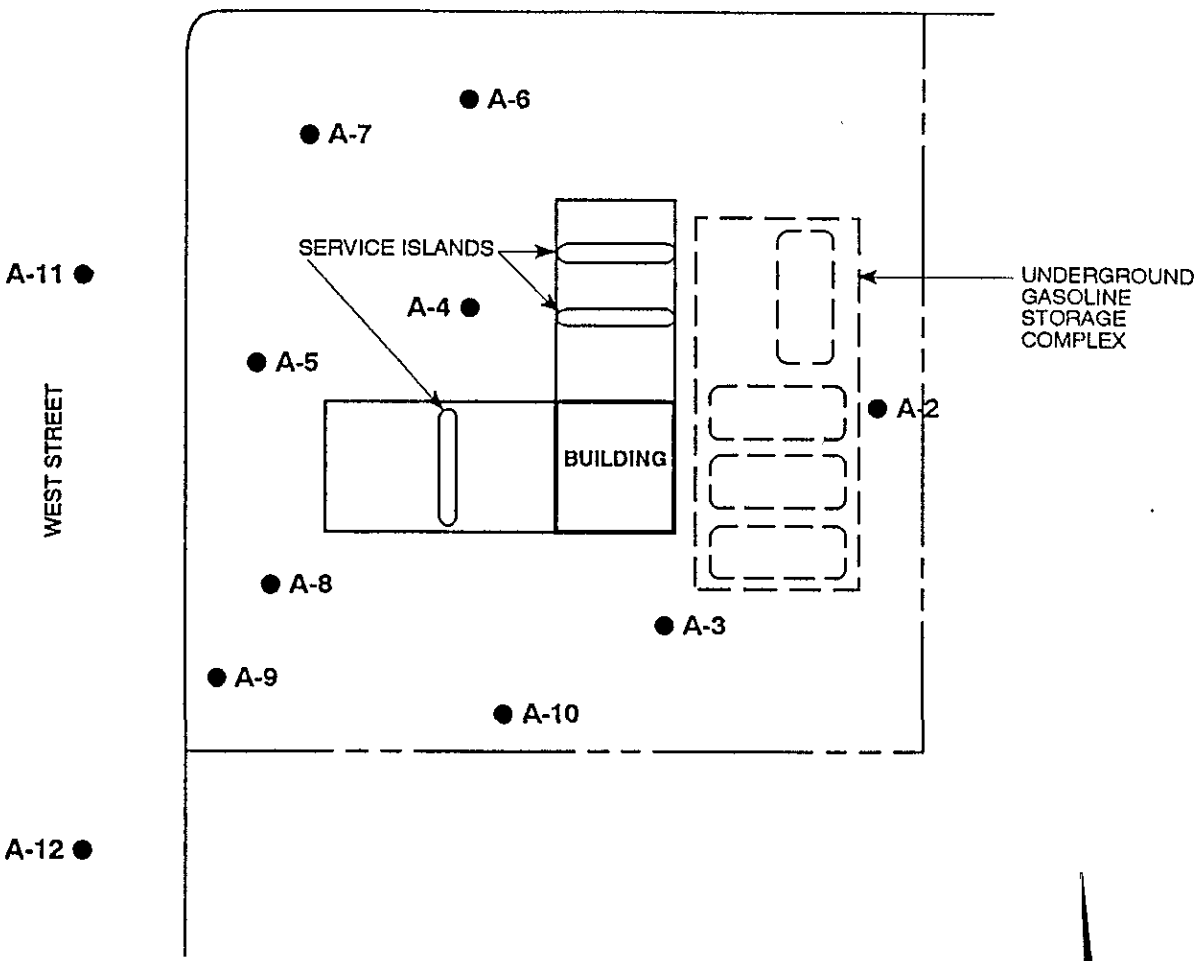
7/05/89

PROPOSED ACTION

- Continue quarterly groundwater sampling and analysis.
- Additional work will be required at the site. Future scopes of work will be defined in a site work plan and implemented under that document.
- ~~install a separate phase product recovery system as an interim remedial program.~~

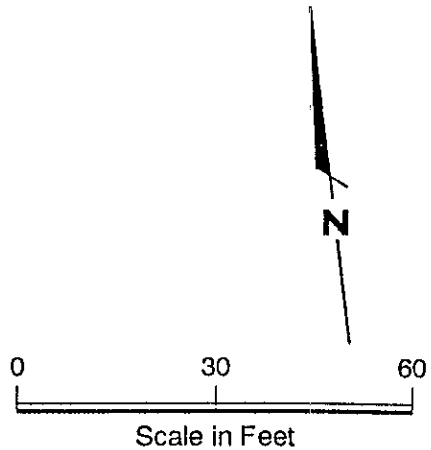


MACARTHUR BOULEVARD



EXPLANATION

● A-2 Groundwater monitoring well location



GeoStrategies Inc.

Site Plan
Arco Service Station
MacArthur Boulevard and West Street
Oakland, California

PLATE

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ANALYTICAL LOG

SAMPLE DATE	SAMPLE POINT	TVHC (PPB)	BENZENE (PPB)	TOLUENE (PPB)	E.B. (PPB)	XYLENES (PPB)
DETECTION LIMITS		50.00	0.50	1.00	1.00	3.00
21-Mar-89	A-2	22,000.00	1,200.00	1,800.00	1,200.00	7,700.00
24-May-89	A-2	9,000.00	460.00	260.00	250.00	2,400.00
21-Mar-89	A-3	230.00	1.60	<1.00	3.00	3.00
24-May-89	A-3	170.00	0.90	2.00	1.00	<3.00
21-Mar-89	A-4	360,000.00	1,500.00	3,700.00	6,500.00	35,000.00
24-May-89	A-4	1,500,000.00	1,000.00	2,000.00	6,000.00	23,000.00
21-Mar-89	A-5	60.00	0.50	1.00	2.00	10.00
24-May-89	A-5	<50.00	0.50	<1.00	<1.00	<3.00
21-Mar-89	A-6	220.00	33.00	21.00	9.00	39.00
24-May-89	A-6	110.00	13.00	6.00	3.00	13.00
21-Mar-89	A-7	<50.00	0.90	<1.00	<1.00	<3.00
24-May-89	A-7	<50.00	<0.50	<1.00	<1.00	<3.00
21-Mar-89	A-9	50.00	2.80	1.00	1.00	3.00
24-May-89	A-9	120.00	26.00	12.00	4.00	79.00
21-Mar-89	A-10	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	A-10	<50.00	<0.50	<1.00	<1.00	<3.00
21-Mar-89	A-11	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	A-11	<50.00	<0.50	<1.00	<1.00	<3.00
21-Mar-89	A-12	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	A-12	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	AF-2	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	AF-4	<50.00	<0.50	<1.00	<1.00	<3.00
21-Mar-89	AF-6	<50.00	<0.50	<1.00	<1.00	<3.00
24-May-89	TB	<50.00	<0.50	<1.00	<1.00	<3.00
21-Mar-89	TB	<50.00	<0.50	<1.00	<1.00	<3.00

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ANALYTICAL LOG

SAMPLE DATE	SAMPLE POINT	TVHC (PPB)	BENZENE (PPB)	TOLUENE (PPB)	XYLENES (PPB)
DETECTION LIMITS -----		50.00	0.50	1.00	4.00
07-Jan-88	A-2	12,000.00	920.00	1,500.00	4,000.00
07-Jan-88	A-3	250.00	2.30	8.00	21.00
07-Jan-88	A-5	<50.00	0.50	1.00	4.00
07-Jan-88	A-6	390.00	54.00	89.00	110.00
07-Jan-88	A-7	<50.00	<0.50	1.00	4.00
07-Jan-88	A-9	300.00	45.00	14.00	43.00
07-Jan-88	A-10	<50.00	0.60	11.00	4.00
07-Jan-88	A-11	<50.00	1.10	2.00	5.00
07-Jan-88	A-12	<50.00	<0.50	<1.00	<4.00

DATE	WELL	DTH	DTW	HT	BAILED	FLOWMETER	PT-LIQ.	PT-H2O	EMP	C.ELEV
	2									54.41
	3									53.34
	4									53.40
	5									52.79
	6									53.77
	7									53.46
	8									52.72
26-May-89	A	7.34	(1.00)	0.01		0.10				
02-Jun-89	A	7.38	(1.00)	0.02		0.50				
08-Jun-89	A	7.39	(1.00)	0.02		1.00				
16-Jun-89	A	7.41	(1.00)	0.02		1.00				
23-Jun-89	A	7.43	(1.00)	0.02		1.00				
30-Jun-89	A	7.47	(1.00)	0.03						
26-May-89	B	7.35	(1.00)	0.01		0.10				
02-Jun-89	B	7.44	(1.00)	0.02		0.50				
08-Jun-89	B	7.43	(1.00)	0.02		1.00				
16-Jun-89	B	7.51	(1.00)	0.03		1.00				
23-Jun-89	B	7.45	(1.00)	0.02		1.00				
30-Jun-89	B	7.50	(1.00)	0.03						
26-May-89	2		16.13	0.00					SM	
02-Jun-89	2		13.26	0.00					SM	
08-Jun-89	2		11.90	0.00					BH	
16-Jun-89	2		11.21	0.00					BH	
23-Jun-89	2		10.88	0.00					JF	
30-Jun-89	2		10.63	0.00					BH	
26-May-89	3		10.89	0.00						
02-Jun-89	3		10.98	0.00						
08-Jun-89	3		11.05	0.00						
16-Jun-89	3		11.16	0.00						
23-Jun-89	3		11.10	0.00						
30-Jun-89	3		11.23	0.00						
26-May-89	4	11.31	(1.00)	.00						
02-Jun-89	4	11.41	(1.00)	.00						
08-Jun-89	4	11.44	(1.00)	.00						
16-Jun-89	4	11.54	(1.00)	.00						
23-Jun-89	4	11.53	(1.00)	.00						
30-Jun-89	4	11.63	(1.00)	.00						
26-May-89	5		11.01	0.00						
02-Jun-89	5		11.10	0.00						
08-Jun-89	5		11.02	0.00						
16-Jun-89	5		11.21	0.00						
23-Jun-89	5		11.22	0.00						
30-Jun-89	5		1.30	0.00						
26-May-89	6		9.42	0.00						
02-Jun-89	6		9.50	0.00						
08-Jun-89	6		9.53	0.00						
16-Jun-89	6		9.66	0.00						
23-Jun-89	6		9.64	0.00						
30-Jun-89	6		9.74	0.00						
26-May-89	7		9.76	0.00						
02-Jun-89	7		9.37	0.00						
08-Jun-89	7		9.40	0.00						

DATE	WELL	DTH	DTW	HT	BAILED	FLOWMETER	PT-LIQ.	PT-H2O	EMP	C.BLEV
16-Jun-89	7		9.53	0.00						
23-Jun-89	7		9.52	0.00						
30-Jun-89	7		9.60	0.00						
26-May-89	8	10.20	(1.00)	0.35	0.30					
02-Jun-89	8	10.49	(1.00)	0.05	1.00					
08-Jun-89	8	10.55	(1.00)	0.03	1.50					
16-Jun-89	8	10.67	(1.00)	0.02	0.80					
23-Jun-89	8	10.68	(1.00)	0.03	1.50					
30-Jun-89	8	10.79	(1.00)	0.08						
26-May-89	9		9.72	0.00						
02-Jun-89	9		9.17	0.00						
08-Jun-89	9		11.43	0.00						
16-Jun-89	9		11.51	0.00						
23-Jun-89	9	9.14	(1.00)	.00						
30-Jun-89	9		11.58	0.00						
26-May-89	10		11.27	0.00						
02-Jun-89	10		11.40	0.00						
08-Jun-89	10		9.36	0.00						
16-Jun-89	10		9.17	0.00						
23-Jun-89	10		11.51	0.00						
30-Jun-89	10		9.69	0.00						
26-May-89	11		10.93	0.00						
02-Jun-89	11		11.02	0.00						
08-Jun-89	11		11.03	0.00						
16-Jun-89	11		11.15	0.00						
23-Jun-89	11		11.15	0.00						
30-Jun-89	11		11.22	0.00						
26-May-89	12		10.34	0.00						
02-Jun-89	12		10.40	0.00						
08-Jun-89	12		10.44	0.00						
16-Jun-89	12		10.51	0.00						
23-Jun-89	12		10.51	0.00						
30-Jun-89	12		10.58	0.00						