QUARTERLY SUMMARY REPORT Alameda County September 1989

ARCO Service Station No. 4494 566 Hegenberger Road Oakland, California.

Brief History

- February 19, 1988, vapor/vent line leaks were detected in the unleaded and regular systems during annual tank testing at the site. The systems were reportedly repaired.
- March 11, 1988, an Underground Storage Tank Unauthorized Release (Leak) Report was sent from Brown and Caldwell to Alameda County Division of Environmental Health on March 24, 1988.
- December 16, 1988, a 280-gallon waste-oil tank was removed from the site by Crosby and Overton Environmental Management, Inc. ("Figure 2", PEG). The waste-oil tank pit was excavated to a depth of 7 feet and a soil sample was collected by Pacific Environmental Group, Inc. (PEG) for laboratory analysis. Because a strong odor was noted in this sample, a portion of the pit was further excavated to a depth of 10 feet, and another soil sample was collected. Results of analyses of these samples indicated elevated levels of high boiling point hydrocarbons (370 ppm diesel and 4,800 ppm oil), and oil and grease at 4,500 ppm in the sample collected from a depth of 7 feet; and nondetectable concentrations of hydrocarbons in the sample collected from a depth of 10 feet (see Tables 1 and 2 attached, PEG, May 1989).
 - January 4, 1989, the entire waste-oil tank pit was further excavated to a depth of 10 feet to remove stained soil. Four soil samples were collected by PEG from each sidewall of the pit at a depth of 7 feet (see attached Table 1 for laboratory results). Elevated levels of hydrocarbons (190 and 400 ppm) were detected in samples collected from the east and north sidewalls. On January 18, 1989, PEG oversaw further excavation of the waste-oil tank pit along the north sidewall and collected a sample from a depth of 7 feet for laboratory analysis. Laboratory analysis of this sample indicated nondetectable levels of diesel and oil, and 10 ppm oil and grease (Table 1). Further excavation of the east sidewall could not be performed due to the proximity to the station building. Approximately 30 tons of waste-oil contaminated soil were transported to Chemical Waste Management's landfill in Kettleman Hills, California. The pit was backfilled with clean fill; the tank was not replaced.

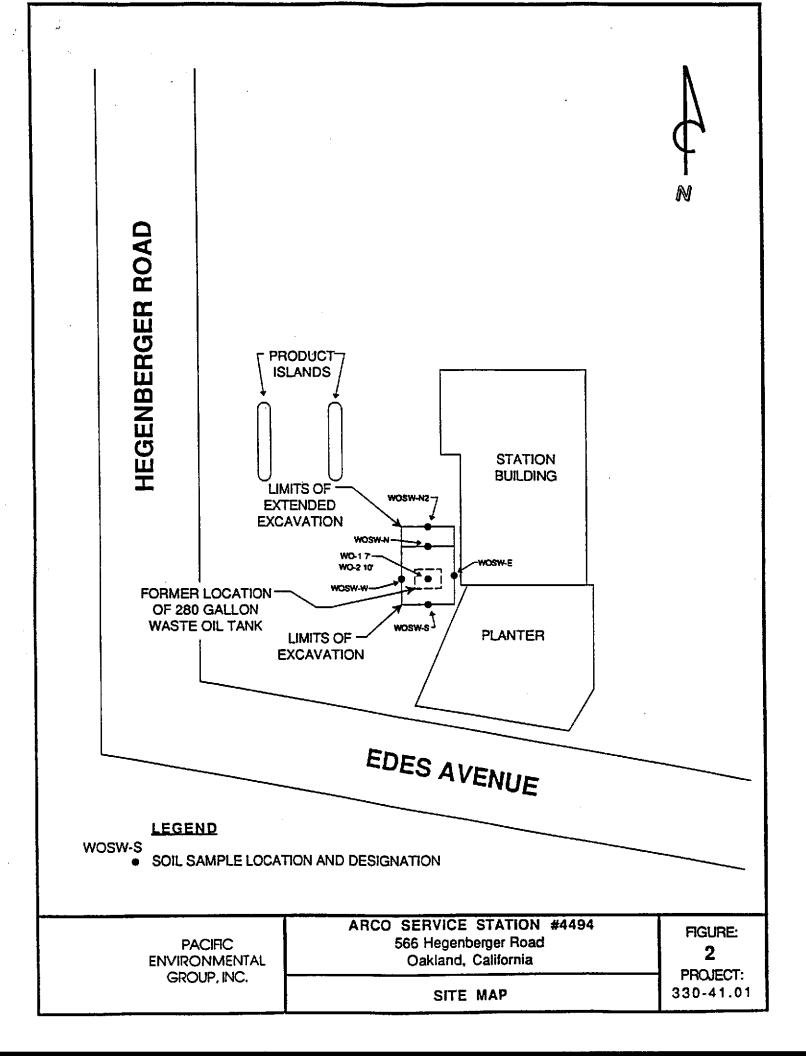
April 19, 1989, an Underground Storage Tank Unauthorized Release (Leak) Report was sent from PEG to Alameda County Division of Environmental Health as a result of the elevated levels of hydrocarbons discovered during removal of the waste-oil tank.

Work Performed during Third Quarter 1989

A Work Plan for initial assessment of hydrocarbon contamination (Applied GeoSystems Report No. 69038-1, dated September 29, 1989) was completed and submitted to the Regional Water Quality Control Board, San Francisco Region; the Alameda County Health Agency; and the City of Oakland Department of Environmental Health.

Future Work - Fourth Quarter 1989

- Implement work described in the above-mentioned Work Plan upon approval from Alameda County Health Agency.



Project No. 330-41.01 May 3, 1989

Summary of Analytical Results
Low Boiling Hydrocarbons, High Boiling Hydrocarbons, Oil & Grease
Soil Samples From Waste Oil Tank Excavation
Results in Parts per Million - Dry Soil Basis

TABLE 1

Sample	Depth (ft)	Low Boiling Hydrocarbons Gasoline	<u>High Boiling H</u> Diesel	<u>ydrocarbons</u> Oil	Oil & Grease		
WO-1.	7	11.	370.*	4,800.	4,500.		
WO-2	10	<5.	<10.	<10.	<20.		
(Side Walls)							
WOSW-E	7	NT	<10.	50.	190.		
wosw-s	7	NT	<10.	<10.	<10.		
wosw-w	7	NT	<10.	<10.	<10.		
wosw-n	7	NT	33.*	400.	200.		
wosw-n2	, 7	NT	<10.	<10.	10.		

NT = Not Tested

^{* =} Chromatographic pattern of compounds detected and calculated as diesel does not match that of the diesel standard used for calibration.

TABLE 2

Summary of Analytical Results Volatile Organic Compounds, Semi-volatile Organic Compounds, Metals Soil Samples from Waste Oil Tank Excavation Results in Parts per Million - Dry Soil Basis

Sample ID:	WO-1	WO-2	Designated Level*
Volatile Organic			,
Compounds - HSL		ND	
Xylenes	.008	ND	
Other tested compounds	ND	ND	
Volatile Organic			
Compounds - Non-HSL**			
1,3,5-Trimethylbenzene	.05	ND	
1,2,4-Trimethylbenzene	.03	ND	
Diethylbenzene	.02	ND	
Methyl(1-methylethyl)benzene	.03	ИD	
2-ethyl-1,4-dimethylbenzene	.03	ИD	
Other tested compounds	ND	ИД	
Semi-volatile			
Organic Compounds - HSL			/110 D1M1
2-Methylnapthalene	ND	.09	(NO DATA)
Other tested compounds	ND	ND	
<u>Metals</u>			
Cadmium .	ИD	· ND	
Chromium	48.	44.	500.
Lead	150.	ND	
Zinc	76.	45.	200.

ND = None detected. See Certified Analytical Report for detection limits.

HSL = Compounds on the hazardous substances list.

** = Estimate only. See Certified Analytical Report.

Levels to protect drinking water when compounds occur in a solid, for a hypothetical "average" site. Converted to parts per million. Source: "Water Quality Goals and Hazardous and Designated Levels for Chemical Constituents," California Regional Water Quality Control Board (prepared by Jon Marshack), September 1986.