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ANATEC Log No: 8538 (1-9)
Series No: 310/007
Client Ref: (V) Y. Nordhav

Subject: Results of On-Site Analysis for Petroleum Hydrocarbons
as Obtained at the AC Transit Facility, Emeryville,
California on November 13, 1986.

Dear Ms. Nordhav:

The analyses referenced above have been completed. This report is written to confirm results transmitted verbally on November 13, 1986. Soil samples were obtained by personnel of Baseline in brass core containers from the fuel tank excavation sites and were submitted to ANATEC personnel for on-site analysis. Upon receipt, samples were maintained in storage at 4°C and thus maintained until analysis commenced.

Determination of petroleum hydrocarbon content of the soil samples was performed in a mobile laboratory equipped with a Hewlett-Packard gas chromatograph, Mettler analytical balance, and other supportive equipment. Samples were prepared for analysis by thorough mixing and subsequent extraction with methylene chloride. Extraction was performed three successive times, and each time extraction was aided by sonication. The extracts were dried over sodium sulfate, combined and concentrated at 60°C to a final volume of 2 to 4 milliliters.

The extract was then analyzed by gas chromatography with flame ionization detection. Preparation and analysis of the sample batch was accompanied by similar preparation of a method blank and a sample fortified with a petroleum hydrocarbon standard. Response of the chromatographic system to gasoline, diesel, and motor oil standards was measured. Response of the chromatographic system to calibration standards was compared with system response to sample extracts for purposes of contaminant identification and quantification.

Preparative and analytical methods employed are in accord with requirements presented in "Guidelines for Addressing Fuel Leaks," Water Quality Control Board, San Francisco Bay Region, revised 1985; chromatographic conditions are described in this



publication. The preparation of samples as described above is presented in detail as "Sonication Extraction," Method 3550, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, revised 1985.

Results of analyses are summarized below in Table 1. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Approved by:

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William G. Rötz, Manager
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Greg Anderson
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/hs

TABLE 1. SUMMARIZED RESULTS FOR ANALYTICAL WORK AT THE AC TRANSIT FACILITY, EMERYVILLE, CALIFORNIA, NOVEMBER 13, 1986.

Descriptor	Lab No.	Total Petroleum Hydrocarbons as Diesel Fuel
		(mg/Kg) ¹
Ep-1	8538-1	7,200
Ep-2	8538-2	3,100
Ep-3	8538-3	3,050
Ep-4	8538-4	1,030
E-1	8538-5	230
E-2	8538-6	870
E-3	8538-7	650
E-4	8538-8	200
E-5	8538-9	100

¹Units are milligrams total petroleum hydrocarbons as diesel fuel-per-kilogram sample, as received basis.