ANATEC LABORATORIES INC.

435 Tesconi Circle • Santa Rosa, California 95401 • 707-526-7200

Bob Dias
Scott Broadway Co.
200 Jennings Street
San Francisco, CA 94124

October 10, 1986
ANATEC Log No: **8405** (1-4)
Series No: 324/011
Client Ref: PO 93508-7-23-0925-02

Subject: Analysis of Four Samples Collected at 2497 Groveway, Castro Valley, CA on October 8, 1986

Dear Mr. Dias:

Collection and analysis of the samples referenced above have been completed. This report is written to confirm results transmitted verbally on October 9, 1986. The samples were collected by an ANATEC field chemist from an excavation approximately 12 feet in depth between approximately 10:30 a.m. and 11:30 a.m., October 8, 1986. The samples were collected in brass cores which had previously been thoroughly cleaned with trisodium phosphate solution and deionized water.

Following collection the samples were immediately sealed in cores with plastic end caps and placed on ice for transportation to the laboratory. Collection and delivery to the laboratory were conducted under documented chain-of-custody.

On receipt at the laboratory, sample custody was transferred to ANATEC sample control personnel who subsequently documented receipt and condition of samples and ultimately placed them in secured storage at 4°C until analysis commenced.

In preparation for volatile hydrocarbon analysis, aliquots of samples were taken from core centers with Teflon and stainless steel implements, immediately weighed, and sealed in septum-capped vials. Additionally, vials were prepared in essentially the same fashion to represent method blanks, commercial gasoline standards, gasoline-fortified sample spikes and sample replicates. Each vial was heated for a period of one hour at 90°C during which time light hydrocarbons (such as gasoline) were expected to equilibrate in distribution between sample and headspace. Headspace gases were subsequently analyzed by gas chromatography to measure total light hydrocarbons. Responses of the chromatographic system to samples were compared with responses to standards prepared with commercial gasolines.

Samples were also prepared for semi-volatile hydrocarbon analysis by thorough mixing and subsequent extraction with methylene chloride; extraction, aided by sonication, was performed three successive times for each sample. Extracts were then combined, dried

over sodium sulfate and concentrated in Kuderna-Danish apparatus. Extracts were then analyzed by capillary column gas chromatography with flame ionization detection. Preparation and analysis of samples was accompanied by similar treatment of a method blank and a fortified sample. Response of the chromatographic system to calibration standards prepared with commercial diesel were compared with system response to samples for purposes of qualitative and quantitative interpretation.

Details of the methodology are consistent with requirements specified in "Guidelines for Addressing Fuel Leaks," revised February, 1986, Regional Water Quality Control Board, San Francisco Bay Region; the analytical procedures used are described in detail in: "Headspace" Method 5020, for gasoline, "Sonication Extraction," Method 3550, for diesel, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 2nd edition, revised 1985.

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

Submitted by:

Robert M. Rock
Senior Engineer

Approved by:

Greg Anderson, Director
Analytical Laboratories

Encl: Site Diagram
Custody Records

Table 1. Summarized Results

Parameter	North End Gasoline (8405-1)	South End Gasoline (8405-2)
Headspace petroleum hydrocarbons, as gasoline (mg/Kg)[a]	<5	<5

Parameter	North End, Diesel (8405-3)	North End, Diesel (8405-4)
Extractable hydrocarbons as diesel (mg/Kg)[a]	<5	<5

[a]Data are milligrams analyte per kilogram sample, as received basis.

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FIELD SAMPLING CHECKLIST (Reverse), and CHAIN OF CUSTODY RECORD

707-526-7200

PROJ. NO. | PROJECT NAME Scott Creek Valley LOG 8405

SAMPLERS (Signature)

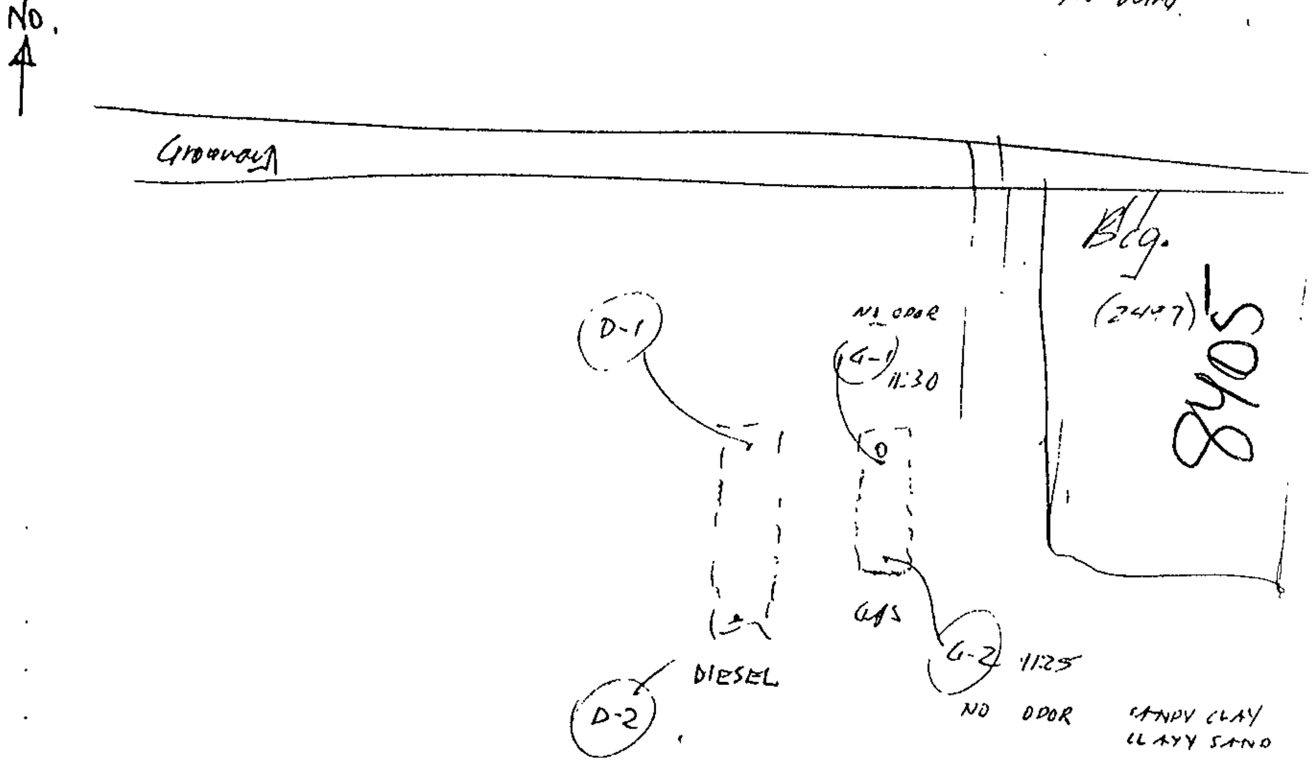
DIAS - Rock

STA. NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Total HC (Gas.)	Total HC (Diesel)	BTX(	Other)	INDICATE: SAMPLE CONTAINER; ANALYSIS & TURN-AROUND TIME DESIRED; & OTHER REMARKS.
G-1	10/7/88	10:30		X		1	X				ASAP - NO ODOR
G-2	"	10:25		X		1	X				ASAP NO ODOR
											TO MEET 1630
D-1	"	11:40		X		1		X			ASAP NO ODOR
D-2	"	11:35		1		1		X			ASAP NO ODOR

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	10/8/88 1425				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	10/9/88 16:23	8405	

10/8/86 Scott Co. @ 2497 Groveway – Castro Valley.

Clear Sunny Day
No Wind



All 14' deep
1½' below backfill.

Present:
Dios
Cottle
No Alameda Cty inspector.