

Engineering & sciences applied to the earth & its environment $August\ 11,\ 1997$ 961163NA



Mr. Peter Wang Encinal Terminals 1521 Buena Vista Avenue Alameda, CA 94501-0215

8/12/97

Subject:

Results of Soil Sampling and Analyses for TPH Motor Oil

Alameda Beltline Parcel, Alameda, California

Dear Mr. Wang:

We are pleased to report the results of supplemental soil sampling and analyses for TPH motor oil at selected locations on the Alameda Beltline Parcel, Alameda, California. The purpose of this work is to further characterize and evaluate the soil that has been reported to contain total petroleum hydrocarbons, as motor oil, exceeding 1,000 mg/kg. The previous results of detections of TPH motor oil was presented in the Risk Management Plan for Soil Impacted by TPH, Encinal Real Estate, Inc. Alameda Site, dated July 1, 1997, prepared by Woodward-Clyde.

Scope of Work

Seven exploration backhoe pits were excavated at locations S-1, S-3, S-4, S-6, SS-5, SS-8, and B1, on the Alameda Beltline Parcel. These locations are identified with an the addition of an "A" on the attached pit logs. Pit S1A was excavated at site S-1 on Figure 4, as an example of the system of identification for the pits. Albert Ridley, engineering geologist prepared logs of the soils encountered, and collected soil samples. Logs of the exploration pits are attached. Soil samples were collected in glass jars and were labeled, placed in an ice chest and transported to ITS Laboratories, San Jose for analysis for TPH diesel and motor oil. The results of the laboratory tests are also attached.

Results of Study

The exploration pits exposed soil layers that consist of fill material that contain pieces of concrete and also pieces of asphaltic concrete paving material. In fact, a layer of broken asphaltic concrete material 6-inches thick was observed in the pits at S-3A and S-4A (at locations S-3 and S-4 on Figure 4, attached) and was observed on the surface in the area of these pits. Soil immediately below this layer was sampled and analyzed for TPH diesel and motor oil. A sample of the surface layer of asphaltic concrete material is on hold at the laboratory for possible additional tests.



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The results of the laboratory analyses of soil samples (Table 1) from these seven locations shows no detection of TPH diesel. The detections of TPH motor oil in these soil samples are all less than 1,000 mg/kg. We believe that the detections of TPH motor oil in these soil samples are a result of the presence of pieces of asphaltic concrete in the soil samples. It is also likely that the previously reported TPH motor oil (collected January, 1997) in soil exceeding 1,000 mg/kg (Table 1) were a result of the presence of pieces of asphaltic concrete in the previous soil samples.

Recommendations

Based upon these new laboratory findings we recommend that the recommendations for management of soil containing TPH motor oil in the July 1, 1997 Risk Management Plan be revised. We will provide a copy of this report and related information to Ms. Madhulla Logan at Alameda County along with our recommendation that the management of soil with motor oil on this site is not necessary. We intend to request copies of chromatograms for previous and current analyses in support of this opinion.

Sincerely,

Albert Ridley, CEG Project Manager

Attachments: Table 1 Summary of TPH Diesel and Motor Oil in Soil

Figure 4, from July 1, 1997 Risk Management Plan

Field Logs of Exploration Pits

Laboratory Reports

cc: Ms. Madhulla Logan, Alameda County Department of Environmental Health

Mr. Richard Kraber, Wind River Systems, Inc.



TABLE 1-SUMMARY OF TPH DIESEL AND MOTOR OIL IN SOIL Alameda Beltline Parcel, Alameda, California

Figure 4			Aug.'97 Results in Mg/Kg		Jan. '97 Results
Location	Sample No.	Depth in feet	TPH Diesel	TPH Motor Oil	TPH Motor Oil
B1	B1A-1	1/4 to 1/2	<100	190	1300
B1	B1A-2	1 1/2 to 2	<10	<10	na
S-1	S1A-1	1/2 to 1	<100	260	2900
S-1	S1A-2	2 1/2 to 2 3/4	<100	310	na zao
S-3	S3A-1	3/4 to 1	<100	250	1400
S-3	S3A-2	1 1/2 to 2	<10	21	na na
S-4	S4A-2	3/4 to 1	<50	130	2300
S-4	S4A-3	2 to 2 1/4	<10	<10	na
SS-5	SS5A-1	1 to 1 1/2	<20	81	5700
SS- 5	SS5A-2	2 to 2 1/2	<50	95	•
SS-6	SS6A-1	1/2 to 1	<20	66	na 2100
SS-8	SS8A-1	1/2 to 1	<200	620	1150
	na= not applic				1100