GERAGHTY
& MILLER, INC.
Environmental Services

JWG

Ground Water *Engineering* *Hydrocarbon* *Remediation* *Education*

September 14, 1990

Mr. Gary Mitchell
Project Engineer
United Parcel Service, Inc.
6662 Owens Drive
Pleasanton, California 94566
(702) 359-4916

Re: Results of Soil Excavation, United Parcel Service, Inc. Facility, 8400 Pardee Drive, Oakland, California
(Project No. RC02702)

Dear Mr. Mitchell:

This report presents the results of the soil excavation activities performed by Geraghty & Miller, Inc. (Geraghty & Miller) on behalf of United Parcel Service, Inc. (UPS) at the above referenced facility. The scope of work for this project was presented to UPS in Geraghty & Miller's proposal dated March 26, 1990. UPS's goal for the project was to excavate soil in the immediate vicinity of former location of the product piping and fuel dispensing islands on the north-central portion of the facility (see Figure 1) which had been impacted by petroleum hydrocarbons. The specific objective of the scope of work was to provide recommendations to UPS regarding the extent of excavation and subsequent soil sampling in order to acheive the goal of the project, if possible.

BACKGROUND

During September 1989, the fuel dispensing islands and piping were removed and new fuel dispensing islands were installed at the approximate locations shown in Figure 1. During excavation of the backfill near the product dispensing islands, a hydrocarbon odor emitting from the backfill was reportedly noted. Water reportedly filled the 3-foot deep excavation to a depth of 8 inches. Six soil samples and two water samples were collected from the approximate locations shown in Figure 1. The soil samples were collected at depths of approximately 1 to 2 feet below the ground surface (McLaren, February 2, 1990).

Total petroleum hydrocarbons (TPH) as gasoline were detected in soil samples SS-5 (3,100 mg/kg) and SS-6 (4,100 mg/kg) collected from the backfill in the vicinity of fuel dispensing island #1 and the associated product piping (see Figure 1). A matrix interference was reported by the laboratory for the analysis of soil samples SS-4, SS-5, and SS-6. The laboratory's interpretation was that the interference may have been caused by the presence of diesel in the soil samples (McLaren, February 2, 1990).

Concentrations of TPH as gasoline were detected in the water samples collected from the excavation at concentrations ranging from 5,000 µg/L (WS-2) to below detection limits (<500 µg/L) (WS-1). Benzene, toluene, xylenes, and ethylbenzene (BTXE) were

detected at concentrations ranging from 2,200 µg/L (xylenes, WS-1) to below detection limits (<50 µg/L) (McLaren, February 2, 1990).

Based on these results, UPS decided to undertake additional excavation in an attempt to remove soil which had been impacted by petroleum hydrocarbons. UPS requested Geraghty & Miller to provide field services during the excavation activities for the purpose of providing recommendations on the extent of excavation required to remove soil which had been impacted by petroleum hydrocarbons.

FIELD ACTIVITIES

On April 16, 1990, additional soil was excavated, under the direction of UPS, from the area from which soil samples SS-5 and SS-6 had previously been collected. The soil excavation was performed by a backhoe and operator subcontracted by UPS. The approximate extent of the additional excavation is shown in Figure 1. A representative of Geraghty & Miller was present to collect field data and provide UPS with recommendations for the excavation of the soil. The field data consisted of hydrocarbon vapor tests performed on soil samples collected from the backhoe bucket. The hydrocarbon vapor tests were performed by placing the soil samples into plastic bags and allowing any volatile vapors which may have been present in the soil to equilibrate with the headspace in the bag. A measurement of the concentration of the hydrocarbon vapors in the headspace was then obtained by inserting the tip of a hydrocarbon gas detector (Gas Tech Model 1314) into the bag. After an area approximately 8 feet square and approximately 6 feet in depth had been excavated, detectable concentrations of hydrocarbon vapors were detected in soil samples collected from the sidewalls of the excavation. UPS decided to terminate the excavation activities.

At the request of UPS, additional excavation was conducted on April 28, 1990. The original excavation of April 16, 1990, was extended approximately 3 feet laterally and approximately 1 foot deeper, in an effort to further define the extent of vapors within the soil. Hydrocarbon vapors were detected in soil samples collected following the additional excavation, and UPS decided to terminate excavation activities. At the request of UPS, an area approximately 3 feet square by 4 feet deep was excavated at a location approximately 15 feet to the northeast of the original excavation to assess whether hydrocarbon vapors were present in that area. Hydrocarbon vapors were detected in a soil sample collected from that area, and all excavation activities were terminated by UPS.

A workplan for soil and ground-water assessment activities was prepared by Geraghty & Miller and submitted to UPS and Alameda County Department of Environmental Health (Geraghty & Miller, March 16, 1990). The workplan was designed to better define the extent of petroleum hydrocarbons in the soil and shallow ground water in the vicinity of the excavation, Following the excavation activities described above, a proposal for implementing the workplan was prepared by Geraghty & Miller and submitted to UPS (Geraghty & Miller, May 7, 1990). The proposal contained modifications to the original workplan which incorporate the information collected during the excavation activities described above.

If you have any questions, please do not hesitate to call.

Sincerely,
GERAGHTY & MILLER, INC.

Jeffrey W. Hawkins, R.G.
Senior Geologist

Gary W. Keyes, P.E.
Principal Engineer

Attachments: References
Figure 1 - Site Plan

cc: Mr. Donald Code, UPS

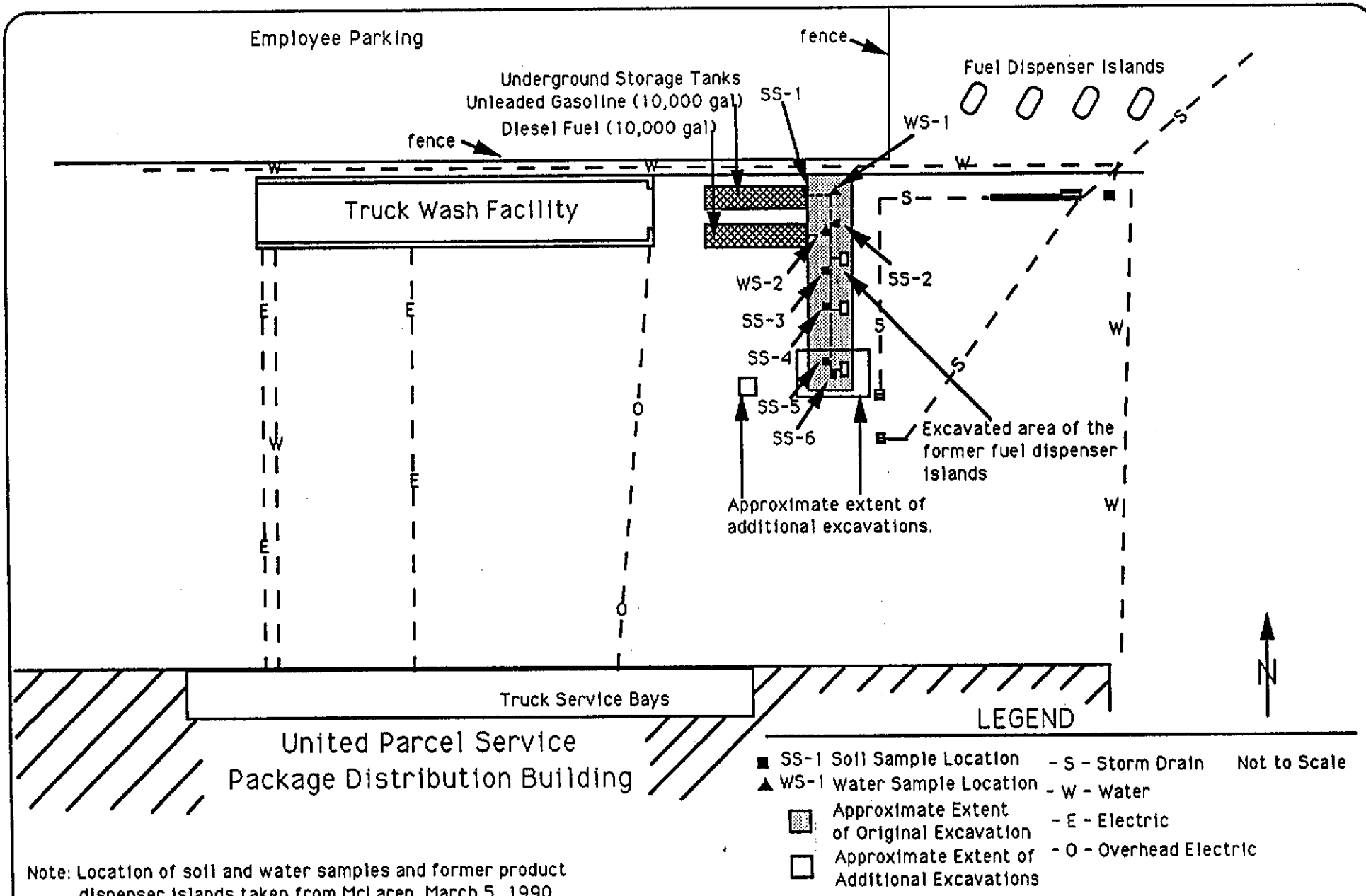
REFERENCES

Geraghty & Miller, May 7, 1990, Proposal and Project Budget Estimate for Initial Soil and Ground-Water Assessment, United Parcel Service, Inc. Facility, 8400 Pardee Drive, Oakland, California

Geraghty & Miller, March 26,1990, Proposal for Environmental Services, United Parcel Service Facility, 8400 Pardee Drive, Oakland, California.

Geraghty & Miller, March 16, 1990, Workplan for Initial Soil and Ground-Water Assessment, United Parcel Service, Inc. Facility, 8400 Pardee Drive, Oakland, California.

McLaren, February 2, 1990, Letter Report Summarizing Soil and Groundwater Data Collected During the Retrofitting of a Gasoline Dispenser System at the United Parcel Service Property Located at 8400 Pardee Drive, Oakland, California.



Note: Location of soil and water samples and former product dispenser islands taken from McLaren, March 5, 1990

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SITE PLAN
UNITED PARCEL SERVICE, INC.
8400 Pardee Drive
Oakland, California

FIGURE
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