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ENVIRONMENTAL CONSULTANTS:
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MAR 29 1994
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March 22, 1994

Ms. Sherri Knight
North Carolina Department of
Environment, Health, and Natural Resources
Division of Environmental Management
8025 North Point Blvd.
Winston-Salem, North Carolina 27106

Reference: 30,000-gallon #4 Fuel Oil UST
Draper Corporation
Greensboro, North Carolina
Aquaterra Job No. 4302900

Dear Ms. Knight:

As discussed in the March 16, 1994, meeting between representatives of Draper Corporation (Draper) and the Division of Environmental Management (DEM), Aquaterra, Inc., (Aquaterra) has been retained by Draper to provide environmental consulting services to address the areas of concern (AOCs) at the Greensboro, North Carolina, site. The AOCs are associated with documented soil impact as a result of the operation of a 30,000-gallon #4 fuel oil underground storage tank (UST) and the identification of various volatile organic compounds appearing intermittently in the ground water across the site. The purpose of this correspondence is to discuss the proposed activities associated with the soil impact from the 30,000-gallon #4 fuel oil UST.

Aquaterra has reviewed the following documents:

- September 24, 1993 *Proposed Corrective Action Plan* prepared by Triad Environmental Consultants, Inc.
- May 10, 1993 *Comprehensive Site Assessment 30,000-gallon Fuel Oil Area* prepared by Triad Environmental Consultants, Inc.
- February 14, 1994 Correspondence from DEM's Ms. Sherri Knight

Based on the review of the above documents, Aquaterra feels the Corrective Action Plan (CAP) should be revised. However, prior to preparing the revised CAP, additional soil assessment activities should be initiated to more fully determine the horizontal and vertical extent of soil impact adjacent to the former piping locations, as well as areas to the north, south, and west of the former UST location (see Figure 1). These areas were determined to exhibit oil and grease concentrations above the 250 parts per million (ppm). The purpose of this additional soil assessment program is to determine the area affected and whether an excavation program is appropriate for the site.

A total of twelve soil borings are proposed to assess the AOC that exceeds 250 ppm (see proposed locations on Figure 1). Three soil borings will be installed in the area adjacent to the former piping, five soil borings will be installed to the north, south, and west of the former UST area, and four additional soil borings may be installed further to the west of the former UST to verify the soil impact, if warranted. Soil boring installation and sampling will be conducted in accordance with the attachment.

A total of two samples will be collected from each boring at depths of 5 and 10 feet. Each sample will be analyzed for the presence of oil and grease according to SW-846 Method 9071 in accordance with DEM Groundwater Section *Guidelines for the Investigation and Remediation of Soils and Groundwater.*

In addition to the soil assessment activities, monitoring wells MW-2, MW-7, AS-1, MW-6, MW-13, and MW-14 will be sampled to determine the current on-site ground water quality. The ground water samples will be analyzed for base/neutral extractables according to EPA Method 625.

Upon completion of the assessment program and receipt of laboratory analysis, a revised CAP will be submitted to DEM presenting our conclusions and describing the proposed remediation program.

In the recent letter dated February 14, 1994, it was indicated that a revised CAP be submitted on April 14, 1994. Due to the need for additional assessment activities, Aquaterra, on behalf of Draper, requests that this deadline be extended to June 3, 1994.

If you require additional information, please contact me at (910) 852-5003.

Sincerely,

AQUATERRA, INC.

Susan Kite

Susan Kite, L.G.
Senior Project Manger

Kirk B. Pollard

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Senior Project Manager

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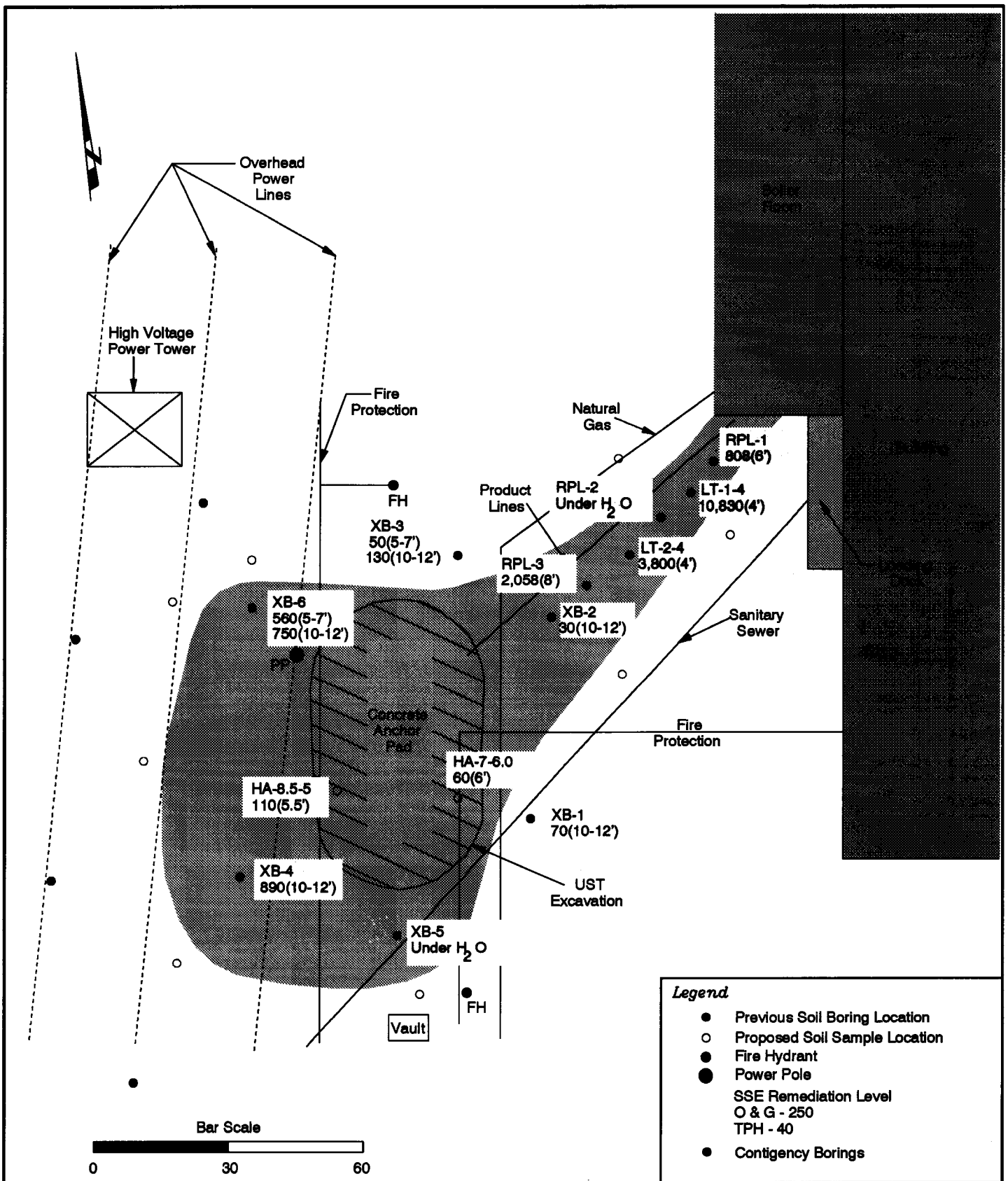

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Author	Drawing	Layers	Date	Title
EVC	Drap1	0,2,3,4	3-14-94	Soil Boring Location Map
Job No.	**Revision**	**Figure**	**Scale**	**Project**
Proposed	3-23-94	1	1" = 30'	Draper Corporation Greensboro, North Carolina

Soil borings are used to characterize soil profiles, to determine the presence of organic vapors, and to obtain soil samples for subsequent laboratory analysis. Soil borings may be advanced either manually with a decontaminated hand auger or using a drill rig equipped with hollow-stem augers or other drilling equipment. Soil samples are typically collected from borings installed with a drill rig at 5-foot intervals using a split-spoon sampling device as described in ASTM D 1586-84. Soil samples are typically collected from borings advanced with a hand auger at 1 to 2-foot intervals.

The completed boring is ready for monitoring well installation or is abandoned. If the boring is terminated below the water table, abandonment entails backfilling with a cement grout. Otherwise the boring is abandoned by backfilling with cuttings or other natural material.

Soil Classification

Undisturbed soil samples are logged in the field and classified according to the Unified Soil Classification System (ASTM D 2488-84).

Headspace Screening

Soils are screened with an organic vapor analyzer (OVA) for total volatile organic compounds (VOCs), which may indicate organic or petroleum hydrocarbon contamination. A typical procedure for screening soils involves filling a clean container approximately halfway with soil and sealing the container with aluminum foil. This creates a headspace in which the VOCs in the soil accumulate and equilibrate. After allowing approximately 10 minutes for this processes to occur, the probe of the OVA is then inserted through the aluminum foil seal into the headspace of the container to obtain a VOC reading.

Sample Collection Protocols

Soil samples selected for laboratory analysis are collected into laboratory provided containers appropriate for the parameters being analyzed and are labeled with a minimum of the following information: sampler's name, date of collection, sample number, analysis to be performed, and project number. Soil samples are stored and transported to the analytical laboratory in an insulated cooler chilled to approximately 4°C. To ensure sample integrity, all samples are transported in accordance with EPA chain-of-custody protocols.