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LUST#497295 Foss Environmental Infrastructure

Underground Storage Tank Site Assessment Report

Foss Environmental and Infrastructure
Corporate Offices
200 SW Michigan Avenue
Seattle, Washington

NW LS NR

FILE QAS:

Prepared for:

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Submitted by:

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Dept of ECOLOGY

April 13, 1998

DEPARTMENT OF ECOLOGY
NWRO/TCP TANKS UNIT

INTERIM CLEANUP REPORT	☒
SITE CHARACTERIZATON	☐
FINAL CLEANUP REPORT	☐
OTHER _____	☐
AFFECTED MEDIA: SOIL	☒
OTHER _____ GW	☒

INSPECTOR (INIT.) SEK DATE 5-12-99

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1.0 INTRODUCTION

1.1 General

This Site Assessment Report was prepared by Slotta Design and Construction (SD&C) for Foss Environmental and Infrastructure (Foss) in response to requirements set forth in Washington Administrative code (WAC) Chapter 173-360, which stipulates that owners and operators of underground storage tanks (UST) are required to perform a site assessment at the time of UST closure. Regulations set forth in WAC Chapter 173-360-610 also require a site assessment be performed by a person registered with the Washington State Department of Ecology (Ecology). Site assessment methods during UST removal were performed in accordance with Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (Ecology 1992).

1.2 Site Description

The property is located at 200 SW Michigan Avenue Seattle, Washington as shown in the attached vicinity map (Figure 1). The property is located in an industrial area approximately two miles west of downtown Seattle and less than a quarter mile west of the Duwamish Waterway. The property is rectangular in shape and occupies the majority of one city block. The facility includes the Foss corporate offices located on the western portion of the property, and an equipment maintenance facility located to the east.

Foss contracted SD&C to observe and document removal of two underground storage tanks (USTs) from their facility. The two USTs were discovered during landscaping activities in an area located southwest of the corporate office building as illustrated in Figure 2. The USTs include a 1,000-gallon Diesel fuel and a 3,000-gallon Bunker C UST.

1.3 Scope of Work

SD&C performed site assessment activities which included observing and documenting removal of the two USTs, observing and recording site conditions, evaluating these data to determine if a release of petroleum product occurred. Additionally, a monitoring/recovery well was installed in each of the excavations.

SD&C's scope of work for site assessment activities during UST removal consisted of:

- field-screening soil from the excavation for volatile organic vapors;
- collecting representative soil samples from the UST excavations and temporary soil stockpiles;
- submitting soil and groundwater samples for chemical analysis;

- evaluating the results of chemical analyses; and,
- preparing a written report summarizing the results of UST removal and site assessment activities, the results of chemical analyses, and conclusions.

2.0 FIELD ACTIVITIES

2.1 Removal of USTs

Removal of the USTs and associated piping was performed by Foss on April 2, 1998. UST decommissioning activities were performed in accordance with Ecology's *Guidance for Site Checks and Site Assessments for Underground Storage Tanks* (Ecology 1992). Decommissioning activities were observed and documented by a SD&C hydrogeologist registered with Ecology to perform site assessments under WAC 173-360-610.

Prior to excavation of overlying materials, the USTs were pumped and inerted. The UST inerting process was reviewed and approved by the Seattle Fire Department prior to removal the USTs. A site assessment checklist is included as Appendix I.

2.2 Soil Sampling

Soil samples were collected from the sidewalls of each of the excavations above the groundwater level. Soil samples collected during the UST removal activities are shown in Table 1, and the soil samples locations are illustrated in Figure 2. A soil sample was collected from the soil stockpiles from each excavation. Soil samples were collected in accordance with sampling guidelines established by Ecology. Groundwater samples were collected using a disposable bailer lowered into each excavation.

Soil encountered during the UST excavation activities was a dark gray fine to medium silty sand with construction debris that included bricks, steel piping, and railroad ties. The maximum depth of excavation was approximately 10 feet below ground surface, although the maximum depth was difficult to evaluate because of sand sloughing created by the high groundwater level.

Groundwater was encountered at approximately 3 feet below ground surface in the excavation for the 3,000-gallon Bunker C UST. The groundwater level appears to be tidally affected due to the close proximity of the excavations to the Duwamish Waterway. The groundwater in the excavation for the 1,000-gallon Diesel UST had a petroleum hydrocarbon sheen floating on the surface. The groundwater in the 3,000-gallon Bunker C UST excavation appeared to be relatively clear, and devoid of floating petroleum hydrocarbon product.

4.0 SUMMARY AND CONCLUSIONS

SD&C was contracted by Foss to observe and document removal of two USTs from their corporate offices located at 200 SW Michigan Avenue in Seattle, Washington. UST removal activities were performed on April 2, 1998. The two USTs located at the property included a 1,000-gallon Diesel, and a 3,000-gallon Bunker C UST.

Soil samples were collected from the sides of the excavations to evaluate if petroleum hydrocarbons were present in the soil surrounding the USTs. Soil samples were submitted to North Creek Analytical of Bothell, Washington for chemical analysis for petroleum hydrocarbon constituents.

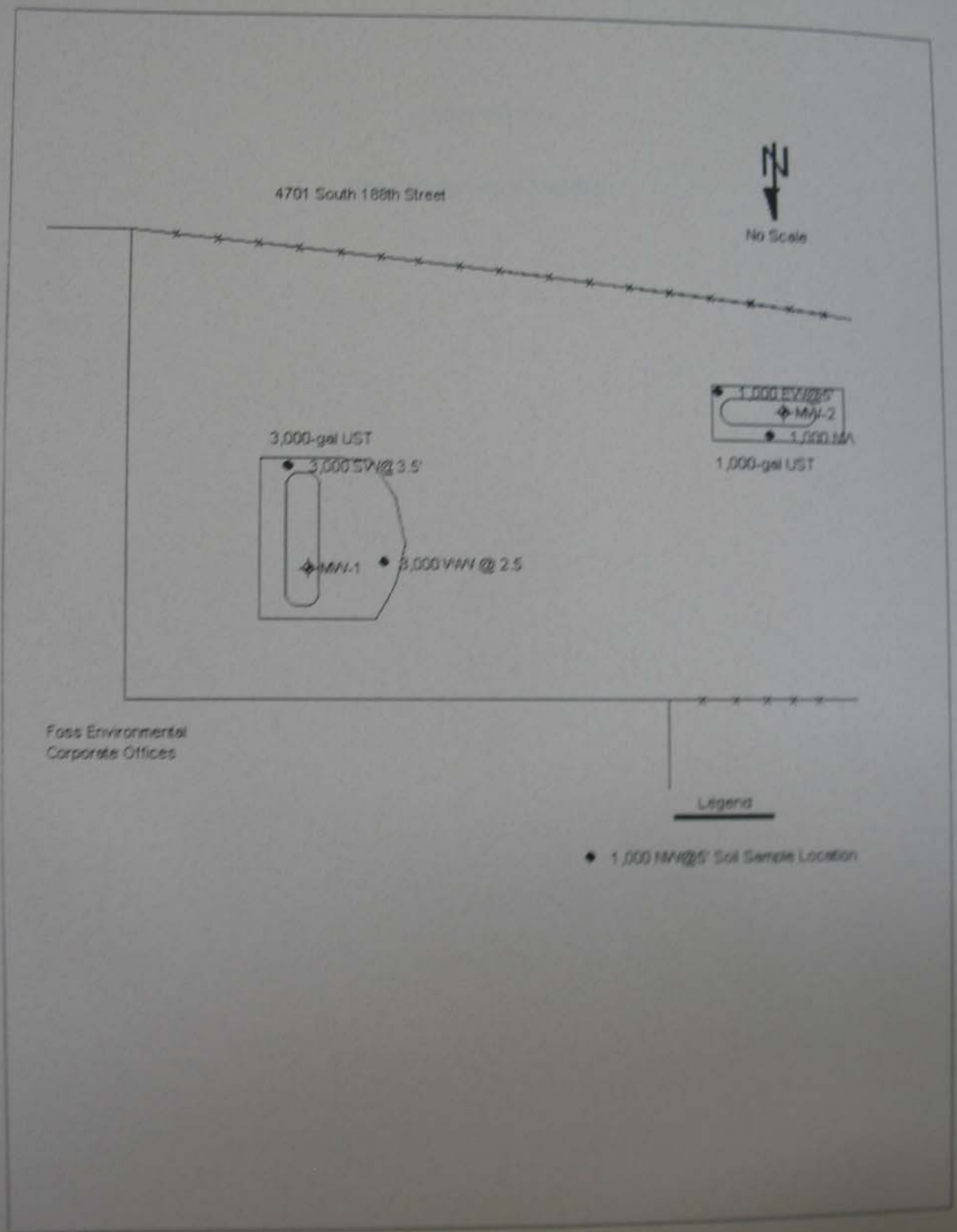
Chemical analysis of groundwater and soil samples collected from the side walls of the 1,000-gallon Diesel UST excavation contained petroleum hydrocarbon constituents exceeding the MTCA Method A cleanup levels. The impacted soil in the excavation could not be over-excavated because of the proximity of subsurface utilities and Michigan Avenue. The lateral extent of petroleum hydrocarbon impact to soil and groundwater in the vicinity of the 1,000 gallon Diesel UST is currently unknown, but appears to be limited. Based on the proximity of the site with the Duwamish Waterway, the groundwater flow direction at the site is likely toward the east. Currently the results of the groundwater and soil samples collected from the excavation of the 3000-gallon Bunker C UST located approximately 30 feet the east of the 1,000-gallon Diesel UST did not exceed the MTCA method A cleanup levels.

As part of interim cleanup activities, approximately 110-gallons of petroleum hydrocarbon impacted groundwater was pumped from the excavation and disposed of at an off-site treatment facility. A 4-inch diameter groundwater monitoring/recovery well was installed in each of the excavations. Based on the results of the groundwater samples collected from the excavations, the two wells will be used for continued monitoring of water quality

Based on the relatively low concentration of petroleum hydrocarbon constituents identified in the groundwater sample collected from the 1,000-gallon Diesel UST excavation the groundwater will likely naturally bioattenuate. No active remediation systems are currently recommended for use at the site. The site is located in an industrial area, and there are no known groundwater downgradient users. The excavations have been backfilled and do not appear to present a significant risk to human health or the environment.

5.0 LIMITATIONS

SD&C conclusions are based on conditions encountered at the time of field activities, information provided to SD&C, and the results of qualitative sampling. The opinions expressed in this report reflect our best estimate of the project requirements based on an evaluation of the



SD&C

Site Plan

Figure 2