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August 15, 2022

Leaking Underground Storage Tank Program
Oregon Dept. of Environmental Quality - NW Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232

RE: Proposed Work Plan – 04-16-0669
40490 Old Highway 30
Astoria, Oregon 97103 (site)

Soil Solutions Environmental Services (SSES) has been contracted by the property owner at 40490 Old Highway 30 in Astoria, Oregon (site) to complete an environmental investigation. SSES understands that the site has a complex history of environmental conditions and that the most recent investigations failed to show the extent of groundwater contamination to the north and northwest as well as investigate the possible vapor intrusion pathway of contaminated groundwater to indoor air at the residence north of the subject property.

Work Objective

The purpose of the additional site investigation is to show that site conditions do not exceed acceptable risk levels.

Scope of Work

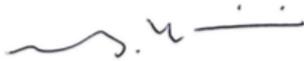
The scope of work has been developed based upon standard industry and investigative procedures for this type of project.

- SSES will request buried public utility location via Utility Notification Center, as required by Oregon law.
- SSES will complete up to four borings located north of the subject property in the hydraulically down-gradient direction. Approximate locations are shown on the attached map. Borings will start farther from the subject property, if groundwater is encountered in enough volume to collect a sample in these two borings then the other two borings will not be completed.
 - SSES will advance borings to a maximum depth of 25-feet below ground surface (bgs), until groundwater is encountered, or to refusal. Soil will be screened throughout the borings and conditions will be recorded on boring logs. Soil samples will be collected in each boring at the soil-water interface and at any depth in which visual or olfactory indicators of contamination are observed. Once groundwater has been encountered, SSES will advance the boring an additional 2 to 3-feet and install a temporary monitoring well consisting of slotted PVC pipe of approximately 1-inch diameter. SSES allow the boring to equilibrate for approximately 30-minutes and then purge approximately three well volumes of water before collect a groundwater sample using a peristaltic pump and/or a bailer. All samples will be transported under chain of custody to an independent Laboratory for analysis of NWTPH-Dx, NWTPH-Gx, and Volatile Organic Compounds (VOCs). Following sample collection, SSES will seal each boring with bentonite and match the surface finish.

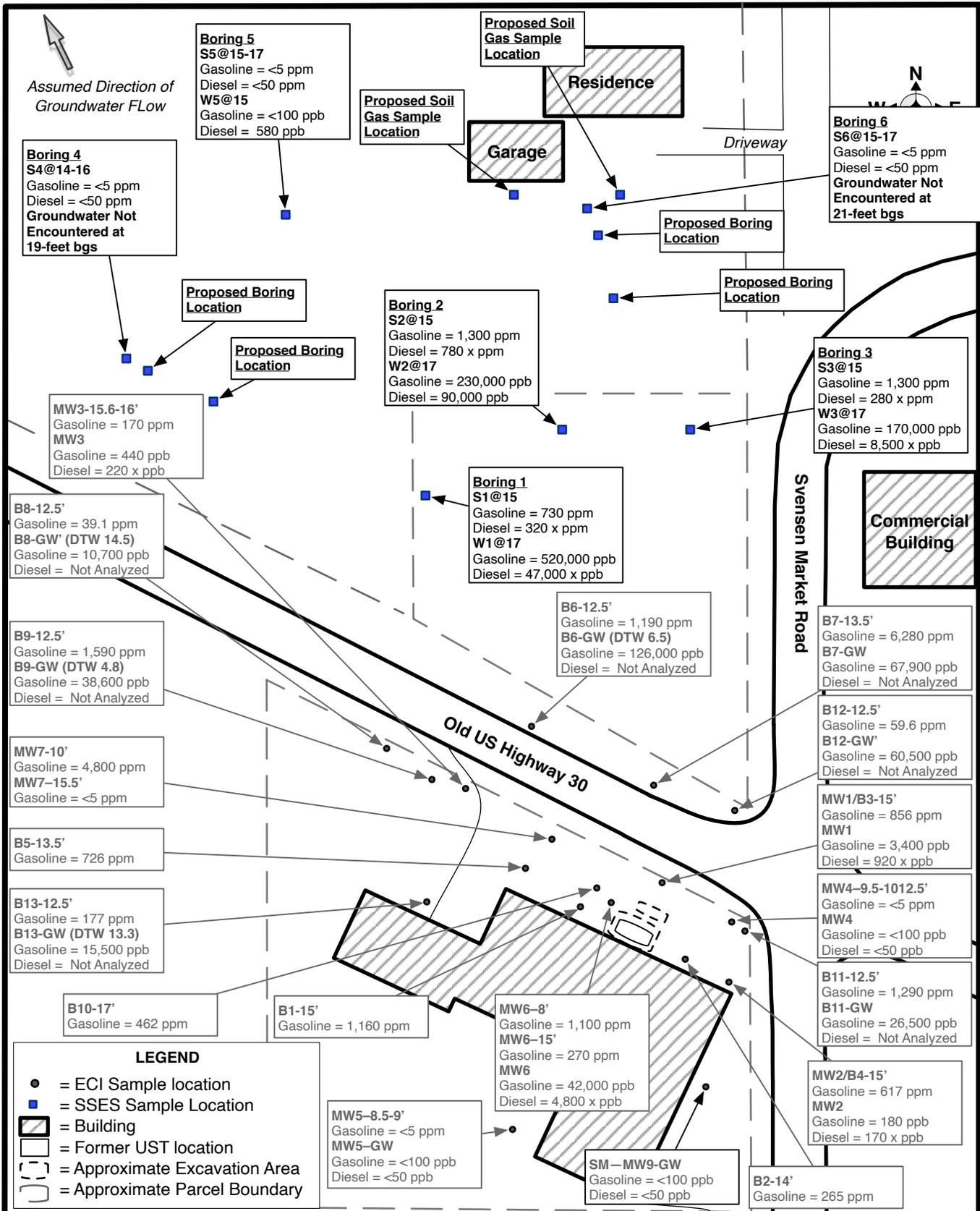
- SSES will complete a soil gas investigation north of the subject property. Approximate locations are shown on the attached map.
 - SSES will collect two soil gas samples from approximately 5-foot bgs. A drill will be used to reach the sampling depth. The borings will be allowed to equilibrate and a minimum of three dead volumes will be purged from the sampling train prior to sampling. Isopropyl alcohol will be used as a leak check compound on all fittings during the sampling. The samples will be submitted to an independent laboratory and analyzed for gasoline, diesel, and VOCs by EPA Method TO-15. Bentonite will be used to seal the borehole. Soil gas samples will be transported under chain of custody to an independent Laboratory for analysis of Laboratory for analysis of gasoline, diesel fuel, and VOCs by EPA method TO-15.
- Upon completion of the project, SSES will provide a report documenting the results of the investigation. The report will include a project narrative, a site map, sampling locations and depths, analytical results compared to DEQ risk-based concentrations (RBCs).

Should you have any questions regarding the proposed work plan, please do not hesitate to contact me at your convenience.

Sincerely,



Kendra J. Williams, RG
503-234-2118
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Registered Geologist and Commercial Project Manager
Soil Solutions Environmental Services, Inc.



Proposed Sampling Locations Map
40490 Old HWY 30
Astoria, Oregon 97103
DEQ File #04-16-0669

PROJECT: LUST
DATE: 8/15/22
25 feet