February 6, 2025

Jim Orr
Oregon DEQ

SAMPLING WORK PLAN FOR:
2901 NE COLUMBIA BLVD.
PORTLAND, OREGON 97211

We are pleased to submit this proposal to provide this work plan for sampling at the property located at 2901 NE Columbia Blvd, Portland, Oregon (the Property). The Tax Lot number is R682189. The work will be performed within the agreed upon Scope of Services and in general accordance with the American Society for Testing and Materials (ASTM) Standard E1903-19 and Oregon Department of Environmental Quality (DEQ) rules.

BACKGROUND

In 1924, the Property was occupied by part of a horse stable. Between 1935 and 1948, a dwelling was constructed on the Property. The 1950 fire insurance map shows two dwellings and a detached garage with part of a stable on the Property. Between 1960 and 1970, a building was constructed with a concrete floor and appeared to be used for tractor repair with an equipment storage lot. Between 1981 and 1990, the commercial building was razed, and a commercial building and parking lot were constructed with a footprint consistent with the building and parking lot presently occupying the Property. The Property has remained largely unchanged since this time.

According to historical city directories, the Property has been used for residential purposes from at least 1935 to approximately 1975 and for commercial and industrial purposes since 1970.

RECENT SITE WORK

The owner of the property was recently preparing to install a new drywell in the central back portion of the parking lot. During the excavation, a small pocket of petroleum impacted soil was encountered between 1 to 2 feet below ground surface. A soils sample was collected, and the results indicate 978 parts per million (ppm) of diesel, 2,410 ppm of oil, 0.04 ppm PCBs and no detectable leachable metals. All detections are below the Leaching to Groundwater Risk-Based Concentration (RBCs).

The parking lot currently has two stormwater catch basins. The western catch basin was connected to a drywell on the adjacent property to the west (the properties were formerly one property until around 2017). The eastern catch basin appears to have discharged to the undeveloped ground surface at the north portion of the property.

On completion the new drywell, both stormwater catch basins will be connected to it. The new drywell will be registered with the DEQ and authorize3d by rule.

SCOPE OF SERVICES

The complete assessment will be performed as outlined in the following Scope of Services. Alpha's scope is intended to be comprehensive based on actual site conditions. Soil conditions will be monitored during drilling and adjusted accordingly at the registered geologist's discretion.

Utility Survey

Surveys using geophysical equipment are non-invasive investigations that are useful in detecting underground objects, such as underground utilities. The investigation will include hand-held metal detectors and provide details of underground features in preparation for drilling.

Several conditions can affect the quality of the data collected. These may include underground utilities, surficial objects, parked cars and fences. It is requested that any movable metallic objects (including all vehicles) be removed from the survey area during the investigation.

Direct-Push Sampling

Alpha will engage a subcontractor using direct-push drilling techniques for the subsurface investigation. The driller will be responsible to advance the borings at the direction of Alpha, use disposable drill liners to return samples to the surface, abandon holes in accordance with the Oregon Water Resources Department (WRD) guidelines and submit well logs to WRD.

Alpha is proposing to drill approximately four (4) shallow borings to approximately 15 feet below surface grade (bsg) or drilling refusal. Groundwater beneath the property appears to be approximately 37 feet and is not expected to be encountered within drilling depths.

Soil Sampling

Borings will be placed in the four cardinal directions around the proposed location of the drywell. The specific locations will be determined during the investigation.

Field Screening

Soil samples will be field screened for visual and olfactory signs of petroleum contamination along with headspace vapor screening for volatile organic compounds using a hand-held photoionization detection (PID) meter.

Investigation Derived Waste

Investigation Derived Waste (IDW) will be transported to Alpha's storage yard pending laboratory testing.

Sample Collection

A minimum of two samples will be collected per boring. One sample will be collected within the upper 3 feet of soil and a second at the base of the boring. Additional samples may be collected at areas exhibiting visual or olfactory indications of contamination or based on PID readings.

Contaminants of Concern

Based on the types of chemicals possibly released from former facility or contained in fill placed on the site, the suspected Contaminants of Concern (COC) are as follows below. The risk will be evaluated for each COC in order to determine whether risk is present at the site.

- Heavy Oil
- Diesel
- Gasoline
- Metals

Sample Analysis

During the drilling process, the samples will be evaluated for laboratory submittal. Select samples will be sent to the laboratory for analysis as follows:

- NWTPH-Dx
- NWTPH-Gx
- EPA 5010 RCRA Metals

Any additional laboratory testing from the proposed borings or additional borings and/or other follow up analysis is not included in the scope of work. If these conditions exist or are requested in the future, the client will need to be contacted, and approval required prior to the samples being analyzed.

At this time, it is assumed that adjacent properties, public right of ways and groundwater have not been impacted by any release at the Property.

Summary Report

Alpha will provide a summary report to the client summarizing our work and develop conclusions based on the findings. Alpha will provide recommendations for further investigation or remediation, if applicable.

Quality Assurance & Quality Control

For the project, Alpha assessment will commonly comply with the DEQ's Quality Assurance Project Plan (QAPP) for Preliminary Assessments, DEQ05-LQ-069-QAPP, Version 2.2 dated August 14, 2012.

Soil samples will be field screened for VOCs using a MiniRAE 2000 hand-held PID meter. Prior to using the annually calibrated meter in the field for the day, the meter will be calibrated with a fresh air check and subsequently checked using 100 ppm isobutylene. The meter readings will be checked to make sure they are within 5% of the calibration standard.

Decontamination of Alpha supplied reusable field equipment will include manual removal of particles, wash with Alconox solution, rinse with tap water, wash with Alconox solution and rinse with distilled water. In between each boring, the driller will rinse all sample tubing, cutting bits, etc. with a hot water pressure rinse.

The soil samples from the investigation will be obtained directly from direct-push disposable liners. The liners will be split open along the longitudinal axis and laid open for visual observation. Any obviously impacted soil will be placed directly into both laboratory-provided jars and a Ziplock bag using new disposable nitrile gloves. The material in the Ziplock will be checked using a PID meter. A new set of gloves will be donned after any sample handling and between each interval of sample is collected.

Samples from the investigation will be collected directly from direct-push disposable liners. For samples collected for gasoline analysis, the sample of the soil will be collected following EPA Method 5035A using a Terra Core™ sampling tool and placed in a pre-tared vial containing preservative with a septum-sealed screw cap. Once sealed, the sample will not be exposed to the atmosphere until analysis is conducted. The sample collection process will be completed in the least amount of time in order to minimize the loss of VOCs due to volatilization.

Soil collected for non-VOC analysis, will be placed directly into laboratory-provided 4-oz jars and capped.

The order of collection for all samples will be from the most volatile to the least volatile, and samples will be collected in the following order: 1) Gasoline 2) Diesel and Oil 3) Metals.

Trip Blanks

As per DEQ's requirements, one trip blank provided by the laboratory will be kept in each cooler. The trip blank will be transported to the jobsite and returned to the laboratory.

Field Duplicates

Field duplicates will be collected at a rate of 1 per 20 analytical samples for the soil sample matrix. The field duplicate for the soil sample will be collected from an area of obvious impacts, if possible. For gasoline, two separate field plugs will be taken side by side from the undisturbed sample, with as little time between samples as possible.

SCHEDULE

The scope of work can be completed within approximately three weeks from the start date. The schedule may need to be adjusted based on the availability of subcontractors and findings of the investigation.

LIMITATIONS

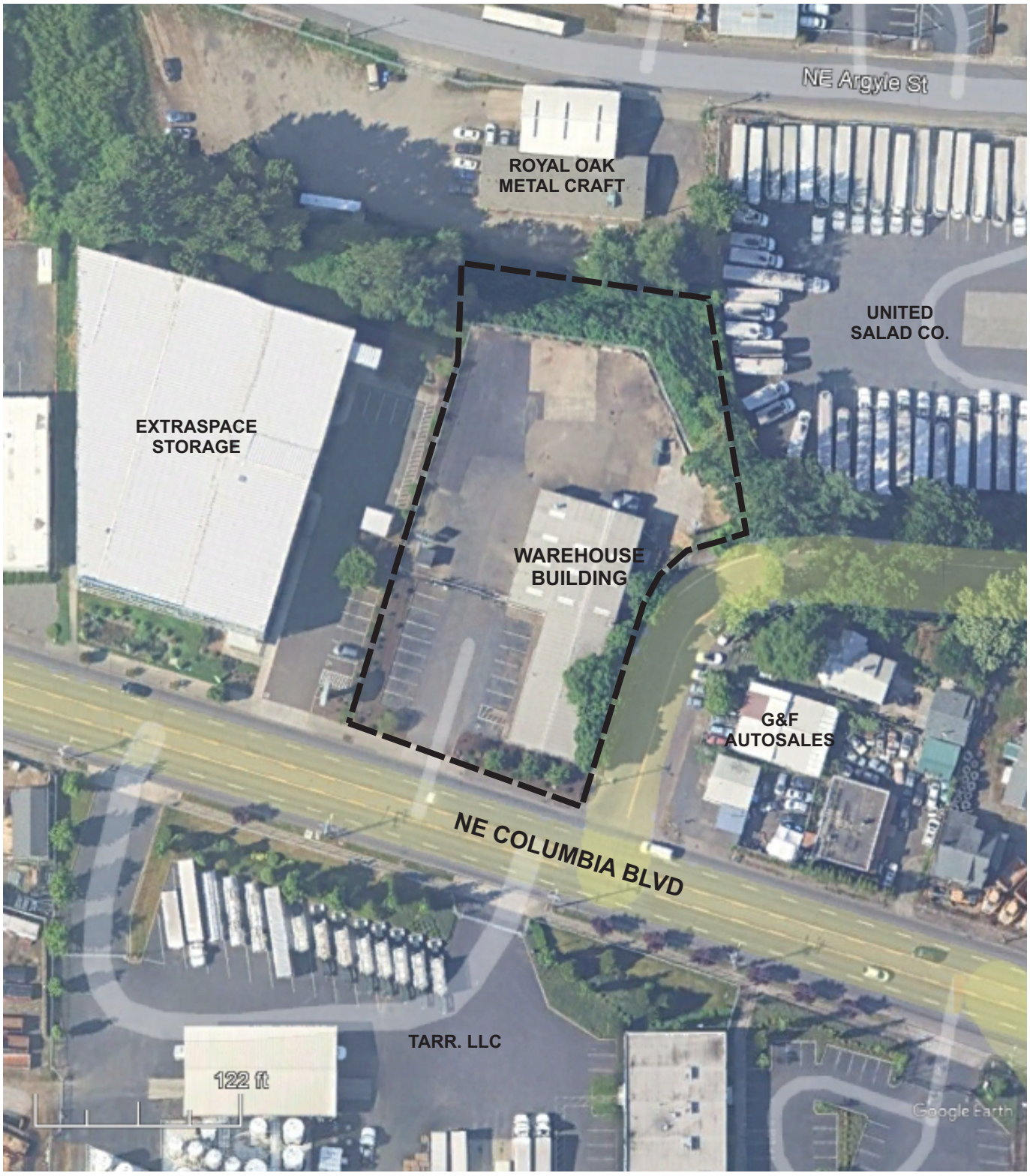
There is a possibility that, even with the proper application of these methodologies, there may exist at the property conditions that could not be identified within the scope of the investigation or which were not reasonably identifiable from the available information. The methodologies of this investigation are intended to delineate the lateral and vertical extent of the onsite contamination. The subsurface environmental conditions are limited to the specifically targeted areas of the Property at the time of the investigation.

If you have any questions, please contact us. We hope to hear from you soon.

Sincerely,

Jim Cooper, R.G.
Senior Geologist

Alpha Environmental Services, Inc.



LEGEND

PROPERTY BOUNDARY

FIGURE 1: SITE OVERVIEW MAP

2901 NE COLUMBIA BLVD
PORTLAND, OREGON 97211

NOTES

MAP SYMBOLS DENOTE LOCATIONS AND MAY NOT BE TO SCALE

GOOGLE MAPS BASE IMAGE MAY BE SKEWED BY SATELLITE POSITION

PROJECT NO: 25-66609

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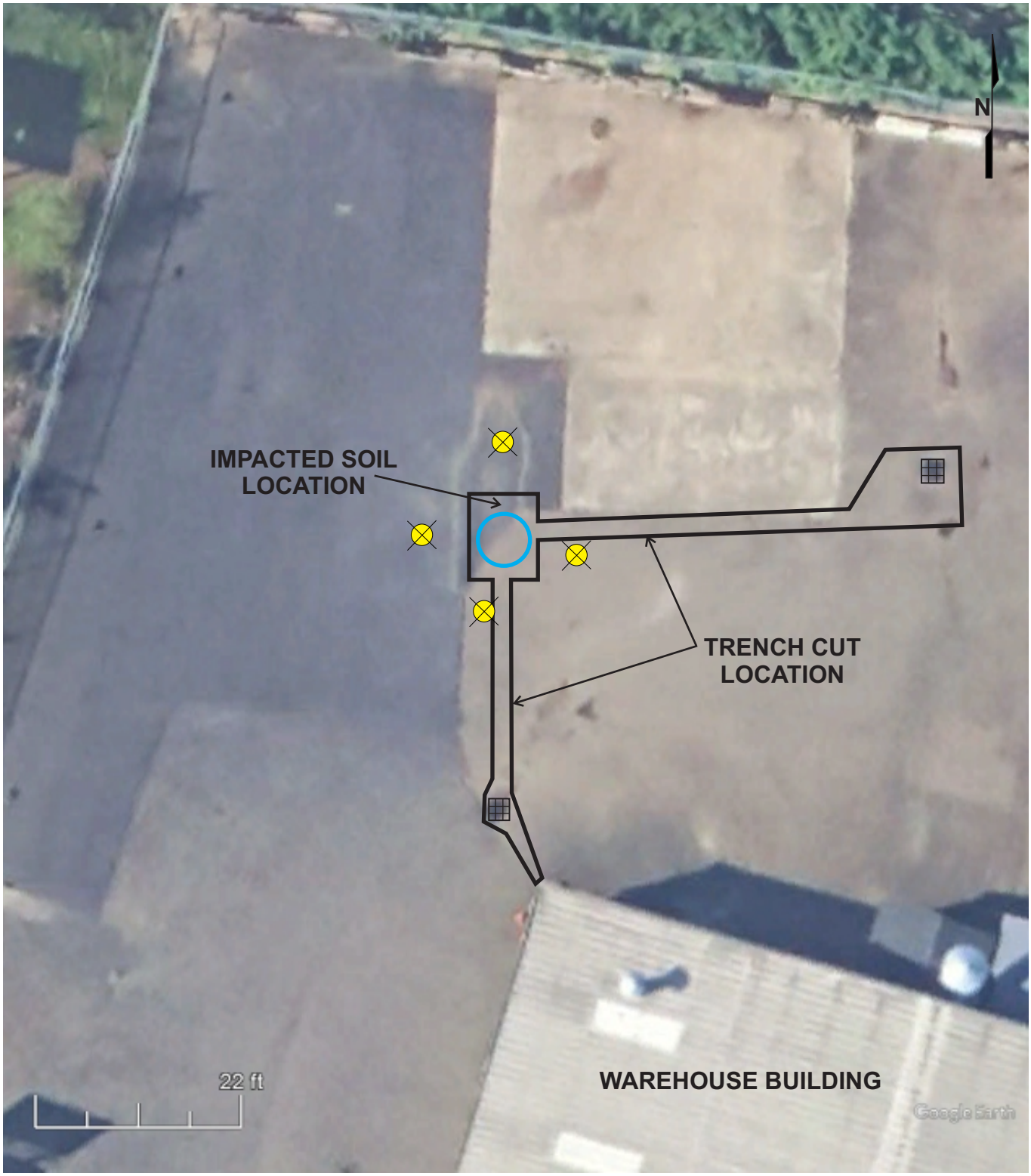

LEGEND

- PROPOSED UIC LOCATION
- EXISTING CATCH BASIN LOCATION
- PROPOSED SITE ASSESSMENT SAMPLE LOCATION

FIGURE 2: SITE SAMPLING MAP

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