



REVISED SITE ASSESSMENT WORK PLAN

Property Identification:

**ECSI #1008
PACIFIC CREST SUPPLY
1065 SW 170TH AVENUE
BEAVERTON 97003**

Prepared For:

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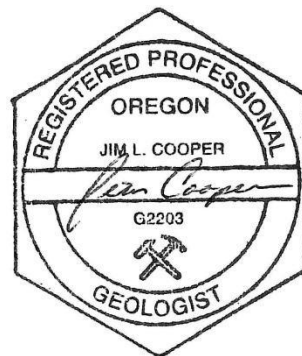
Date Issued: April 14, 2020
Alpha Project Number: 19-30074

REVISED SITE ASSESSMENT WORK PLAN

ECSI # 1008

This plan was prepared under the supervision and direction of the undersigned.

ALPHA ENVIRONMENTAL SERVICES, INC.

A handwritten signature of Jim Cooper in black ink, written over a horizontal line.

Jim Cooper, R.G.
Senior Geologist

A handwritten signature of Phillip Brewer in black ink, written over a horizontal line.

Phillip Brewer
Principal

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Figure 1: Site Overview Map

Figure 2: Site Sampling Map

ACRONYMS AND ABBREVIATIONS

ASTM	American Society for Testing and Materials
bsg	below surface grade
COC	Contaminants of Concern
DEQ	Department of Environmental Quality (Oregon)
PID	Photoionization Detector
PVC	Poly Vinyl Chloride
RBCs	Risk-based Concentrations
RBDM	Risk-based Decision Making
RCRA	Resource Conservation & Recovery Act
VOCs	Volatile Organic Compounds
WRD	Water Resources Department (Oregon)

1.0 INTRODUCTION

Alpha Environmental Services (Alpha) has prepared this Revised Site Assessment Work Plan for the subject property located at 1065 SW 170th Avenue, Beaverton, Oregon (the Property). The purpose of the Work Plan is to provide an outline of the proposed sampling, laboratory analysis and risk analysis evaluation. The scope of work proposed is an attempt to understand the potential impacts at the Property from past site activities. The assessment will follow the standard practice for conducting Phase II Environmental Site Assessments from the American Society for Testing and Materials (ASTM) Standard E1903-19 and Oregon Department of Environmental Quality (DEQ) regulations.

1.1 Project Organization

The following section outlines the project organization, reporting relationships, and lines of communication related to the work to be completed at the Property.

- **Matt Wetzel:** Mr. Wetzel is vice president of Altru Ventures, the current owner of the site and will be responsible for the authorization of site work and paying the applicable DEQ fees. Mr. Wetzel will contract directly with the consultant to execute the work.
- **Oregon Department of Environmental Quality (DEQ):** DEQ will be the primary regulatory authority. DEQ will review and approve work plans. The DEQ project manager is Kevin Dana, (503) 229-5369.
- **Alpha Environmental Inc (Alpha):** Alpha has prepared this work plan for the Property. Alpha will be conducting the site work and submitting reports the DEQ. The Alpha project manager for proposed work is Jim Cooper, (503) 292-5346.

1.2 Property Description

1065 SW 17th Avenue, Beaverton

Property ID: 1S1WS6 2500 (W460297)

Property Size: 4.91 Acres

Zoning: SC-MU – Station Community - Multiple Use District

The Property consists of an approximately 4.91-acre parcel improved with multiple warehouse type buildings and a former residence utilized as a school. The remainder of the site consists of parking/storage areas and grass fields.

1.3 Current and Future Land Use

The Property is zoned SC-MU – Station Community – Multiple Use District. Currently the property is occupied by Little Einstein’s Spanish School, used as glass storage, houses several vacant buildings and the north, west and south areas are vacant grass land.

The future use of the property is anticipated to be development into multi-family residential dwellings. The SC-MU Station Community - Multiple Use District is generally located within one-half mile of light rail station platforms. Primary Permitted uses include office, retail, and service uses. Multiple use and residential developments are also Permitted with no maximum residential density. Manufacturing and industrial uses are limited. Minimum densities and intensities are required.

1.4 Site Drainage

The majority of the developed areas of the property are covered with impervious asphalt. Stormwater appears to sheet flow across the asphalt and drains to grassy areas on the south side of the site.

1.5 Sewer Connections

The property connected to the sanitary sewer and is serviced by the City of Beaverton. The sewer lateral runs along the north side of the westernmost building and drains toward the railroad tracks.

1.6 Geology and Groundwater

The Property is situated within the Willamette Valley, which is a portion of the Puget Trough physiographic sub province of the Pacific Mountain System geological province of the State of Oregon. This area consists of fluviolacustrine sedimentary deposits. Underlying the area is unconsolidated silt, sand, gravel and clay. Generally, this specific area consists of fine-grained material, but gravel layers may also be found there to some extent. The thickness of these deposits is generally less than 100 feet; locally, it may be as great as 150 feet (Walker, et al., 1991).

According to the USGS online mapping database, static groundwater appears to be located approximately 15 feet below surface grade (bsg) in the southern part of the properties and approximately 25 feet bsg at the central part of the property. The flow of groundwater typically imitates the surface topography and ordinarily flows from higher to lower elevations. The near surface flow may be influenced by stratigraphy, water bodies, rainfall, underground utilities and other subsurface features. Based on the general topography of the Property and vicinity, groundwater is anticipated to flow to the south.

The nearest major surface water in the vicinity of the Property is Beaverton Creek located approximately 0.50 miles north of the Property.

2.0 PREVIOUS INVESTIGATIONS

2.1 Site Work

Alpha Environmental Services, Inc., *Phase I Environmental Site Assessment: 17030 W Baseline Rd & 1065 SW 170th Ave, Beaverton, Oregon 97006*, Dated January 16, 2020.

2.2 Site History

A complaint was made to the Oregon DEQ in 1988 alleging that solvents had been discharged to the ground at the site. A complaint follow-up inspection by a DEQ inspector was conducted on June 16, 1988 and found minor soil staining at the site. A follow up visit by DEQ in June 1988 found no evidence of contamination. The Oregon DEQ recommended soil sampling on the Property to determine whether significant releases have occurred. The full extent of soil contamination and soil contaminant identity were never determined. In response, an Environmental Cleanup Site Information (ECSI) file was opened on the Property.

2.3 Summary of RECs

The following Recognized Environmental Conditions (RECs) were found during the Phase I ESA investigations and the resultant actions taken.

1065 SW 170 th Avenue				
REC	Recommendation	Result	Performed by	Comments
Open ECSI File	Join VCP - conduct soil & groundwater sampling	Pending	Alpha	-

3.0 CONCEPTUAL SITE MODEL

3.1 Potential Sources of Contamination

Historical records indicate that the potential sources of contamination on the Property were illegal dumping or improper storage.

3.1.1 Illegal Dumping

The complaints about the illegal dumping did not indicate the specific location(s) of the incidents or the quantities. They indicate they may have continued for an extended period, up to 10 years.

3.1.2 Improper Storage

A complaint follow-up inspection by a DEQ inspector found minor soil staining at the site near stored 55-gallon drums. A follow up visit by DEQ found indicated the impacted soil had been removed and drums are currently stored under cover. The extent of soil contamination and source chemical were never determined.

3.2 Potential Receptors

The conceptual site model includes the identification of potential receptors. The following are applicable for the Properties:

- Human Receptors

3.2.1 Human Receptors

A potential human receptor is defined as any individual that might have the potential to contact, ingest, or inhale contaminants present in site media due to current or future anticipated land use scenarios.

Based on the current and likely future land use, the applicable receptors include occupational workers and future residential and construction/excavation workers.

3.3 Exposure Pathways

The conceptual site model includes the identification of exposure pathways.

3.3.1 Soil

Soil potentially impacted by solvents and associated Volatile Organic Compounds (VOCs) may exist on the property. The following exposure pathways for potentially impacted soil are considered complete:

- Soil Ingestion, Dermal Contact, and Inhalation
- Volatilization to Outdoor Air
- Vapor Intrusion into Buildings

3.3.2 Groundwater

Groundwater potentially impacted by solvents may exist on the properties. City supplied municipal water is provided to the property and adjacent properties and it is unlikely that shallow groundwater has a beneficial use at or near the site. Therefore, the ingestion and inhalation from tap water pathway is not considered a complete pathway. The following exposure pathways for potentially impacted groundwater are considered complete:

- Volatilization to Outdoor Air
- Vapor Intrusion into Buildings
- Groundwater in Excavation

3.4 Conceptual Site Model Summary Table

Potentially Exposed Population	Exposure Route, Medium and Exposure Point	Pathway Selected?	Reason for Selection or Exclusion
Current and Future Land Use: Occupational/Residential ; Potentially Impacted Medium: Soil			
Adults (Occupational & Residential)	Soil Ingestion, Dermal Contact or Inhalation from on-site soils above 3 feet (RBC _{ss})	Yes	The pathway is complete if contaminated soils are within 3 feet of the surface.
Adults (Construction & Excavation Workers)	Soil Ingestion, Dermal Contact or Inhalation from on-site soils below 3 feet (RBC _{ss}).	Yes	The pathway is complete.
Adults (Occupational & Residential)	Volatilization to Outdoor Air (RBC _{so})	Yes	The pathway is complete.
Adults (Occupational & Residential)	Vapor Intrusion into Buildings (RBC _{si})	Yes	The pathway is complete.
Adults	Soil Leaching to Groundwater (RBC _{sw})	No	The pathway is incomplete because groundwater is not used for drinking purposes.
Current and Future Land Use: Occupational/Residential ; Potentially Impacted Medium: Groundwater			
Adults	Ingestion & Inhalation from Tapwater (RBC _{tw})	No	The pathway is incomplete because groundwater is not used for drinking purposes.
Adults (Occupational & Residential)	Volatilization to Outdoor Air (RBC _{wo})	Yes	The pathway is complete.
Adults (Occupational & Residential)	Vapor Intrusion into Buildings (RBC _{wi})	Yes	The pathway is complete.
Construction & Excavation Workers	Groundwater encountered during excavation activities, dermal contact (RBC _{we})	Yes	The pathway is complete.

4.0 PROPOSED SCOPE OF WORK

4.1 Review and Approval of Work Plan

This Revised Work Plan is being submitted for DEQ review and approval. The Work Plan has been written based on the previous site inspections and communications with the DEQ.

Figure 4 shows the locations of the proposed sample locations.

4.2 Proposed Direct-Push Samples

Alpha will engage a subcontractor using direct-push drilling techniques for the subsurface investigation. The boring locations were chosen based on the occupancy of the former cabinet shop in that building and from our interpretation of where the leaking barrels were based on the historic photographs in the DEQ file.

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.

Borings and Sampling Details

1065 SW 170 th Avenue					
Identification	Purpose	Type	Drilling Depth	Sampled Media	Analysis
B1	Site Assessment	Direct-push	10'	Soil	VOCs
B2	Site Assessment	Direct-push	20'	Soil & Groundwater	VOCs
B3	Site Assessment	Direct-push	10'	Soil	VOCs
B4	Site Assessment	Direct-push	10'	Soil	VOCs
B5	Site Assessment	Direct-push	20'	Soil & Groundwater	VOCs

4.3 Sampling and 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 when applicable.

Investigation Derived Waste (IDW) may be stored temporarily onsite or transported to Alpha's storage yard pending laboratory testing.

4.4 Selection of Soil Samples for Chemical Analyses

Soil samples from borings will be collected from the depth interval with the greatest contamination, highest PID readings or based on field observations. If there is no indication of contamination, the soil samples will be collected at approximately three feet below ground surface. For borings advanced to the groundwater table, if no contamination is observed, soil samples will be collected from the soil water interface. Additional soil samples may be collected from areas exhibiting obvious contamination.

4.5 Contaminants of Concern

Based on the types of chemicals reportedly released, the 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 a site.

- Volatile organic compounds

4.6 Chemical Analyses

The soil and groundwater samples from the borings will be analyzed using EPA Test Method 8260 Volatile Organic Compounds (VOCs).

4.7 Results Evaluation

Specific areas will not be further evaluated if: 1) laboratory detections are at concentrations below the applicable risk screening levels; 2) not-detected and the reporting limits are below the applicable risk screening levels.

4.8 Additional Chemical Analyses

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

5.0 QUALITY ASSURANCE & QUALITY CONTROL

For the project, all data used for closure purposes will comply with the DEQ's Quality Assurance Project Plan (QAPP) for the Site Investigations, DEQ05-LQ-069-QAPP, Version 2.2, dated August 14, 2012.

5.1 Field Equipment & Decontamination

Disposable field equipment anticipated to be used for this project include nitrile gloves, plastic spoons, drill core liners, Terra Core™ samplers and Ziplock bags. Reusable field equipment is anticipated to be a soil cutting knife.

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.

5.2 Field Screening

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.

The near surface soil samples from the investigation will be placed directly into laboratory-provided jars.

5.3 Sample Collection

Samples from the investigation will be collected directly from direct-push disposable liners or from just below the ground surface. For samples collected for VOC 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.

Any 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.

5.4 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.

5.5 Rinsate Blanks

Rinsate blanks will be collected at a rate of 1 per 20 analytical samples collected for each matrix sampled (soil). The rinsate blank for the soil sampling will be collected from the soil knife used to inspect coring's, the soil auger and or trowel.

The following procedure will be used for rinsate blanks. After the piece of equipment has been field cleaned and prior to its being used for sample operations, it will be rinsed with organic free water. The rinse water

will be collected and submitted for analyses of all constituents for which the samples collected with that piece of equipment are being analyzed.

5.6 Field Duplicates

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

5.7 Sample Transport

The samples will be packed with an appropriate temperature blank(s), which will consist of a 100-ml polyethylene bottle filled with clean water and the trip blank.

The sample chain of custody will maintain the following protocol for the coolers: be in an authorized person's physical possession or view and/or locked up and kept in a secured area that is restricted to authorized personnel. All changes in sample possession will be documented with the date, time, and personnel.

6.0 RISK SCREENING EVALUATION

6.1 Risk-Based Decision Making

In order to evaluate the current and reasonably likely future risk to human health and the environment, Alpha will compare the data from the current investigation to the DEQ risk-based decision making (RBDM) guidelines.

The RBDM process involves investigating potential sources of the contaminants and the environmental media in which they are contained (e.g., soil or groundwater), receptors (who could potentially be exposed to contaminants), and the exposure pathway (how a receptor might come in contact with contaminants [e.g., inhalation, ingestion or dermal contact]). If any of these elements is missing, the pathway is considered incomplete.

Using the parameters listed above, the laboratory detected concentrations will be compared to DEQ risk-based concentrations (RBCs). An RBC is the concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

To help determination the potential risks at the site, a Conceptual Site Model (CSM) was constructed.

7.0 SCHEDULE

The scope of work described herein will be initiated within 14 to 21 days of the DEQ's approval of the Work Plan, excluding delays beyond the control of Alpha. It is estimated that the boring advancement and sample collection will require approximately one day.

The results of the investigation will be presented and discussed in a report to be submitted within approximately two to three weeks following receipt of the analytical data. The report will document the results of the activities proposed in the scope of work.

8.0 LIMITATIONS

Alpha has developed this work plan based on the information currently know about the site. There is a possibility that, even with the proper application of the methodologies described in this plan, there may exist at the Property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information.

The methodologies of the proposed assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the client, DEQ and interested parties with an indication of subsurface environmental conditions in specifically targeted areas of the property at this time.

The investigation will be performed in a professional manner, in accordance with generally accepted environmental practices, using the degree of skill and care ordinarily exercised by reputable. The investigation is not intended to be a definitive investigation of existing or potential adverse environmental impacts of the entire site and/or adjacent site; thus, it is possible that an impact may exist on the Property or adjacent properties, but was not identified during the investigation.

9.0 REFERENCES

Alpha Environmental Services, Inc., *Phase I Environmental Site Assessment: 17030 W Baseline Rd & 1065 SW 170th Ave, Beaverton, Oregon 97006*, Dated January 16, 2020.

American Society for Testing and Materials, *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, ASTM Designation: E 1903-19

State of Oregon Water Resources Department, Agency Resources, *Online Well Log Search and Groundwater Level Data*, accessed via website.

Walker, 1991. *Geological Map of Oregon*, United States Geological Survey, Walker, G.W. and MacLeod, N.S., 1991.



APPROXIMATE SCALE IN FEET
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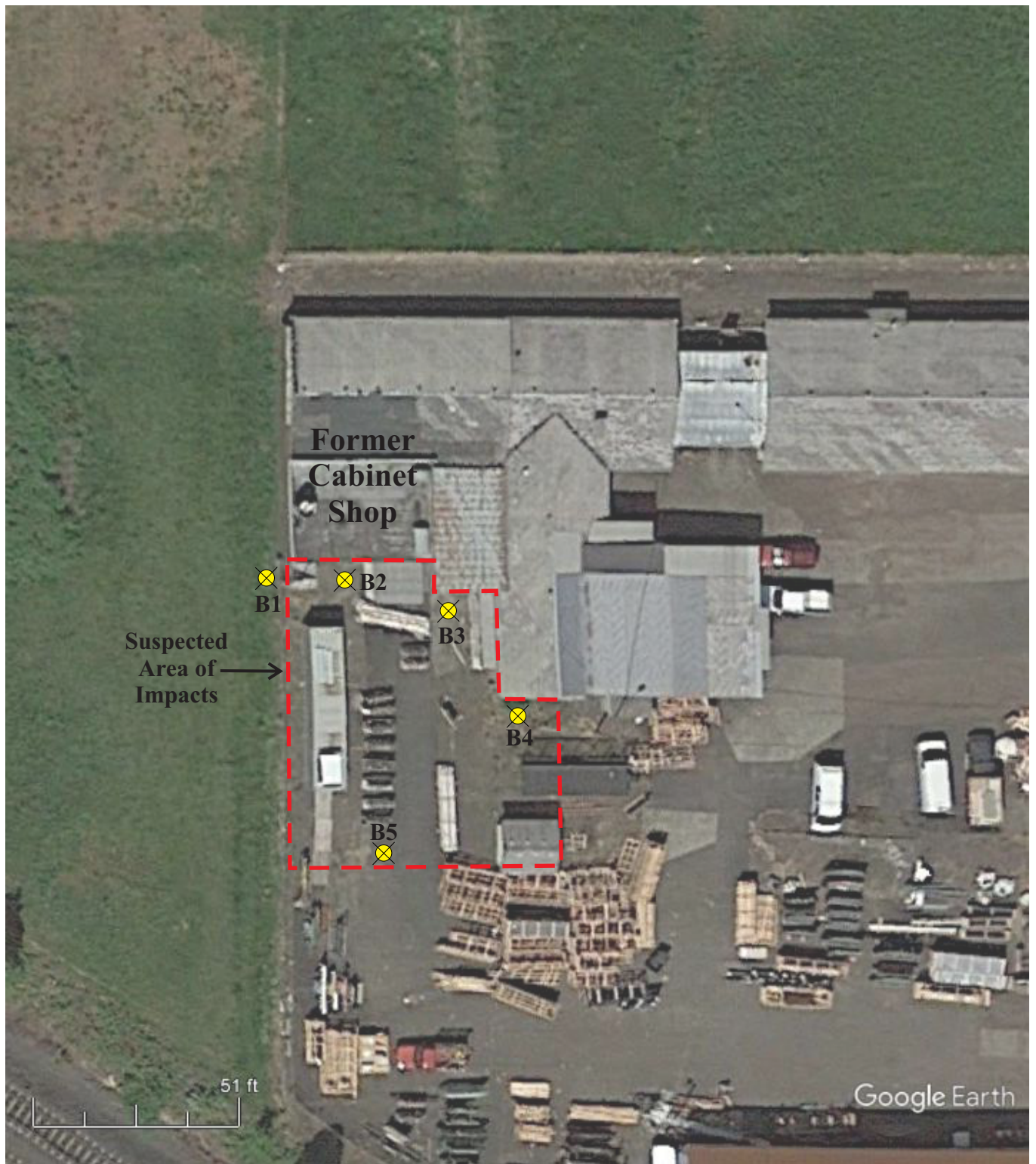


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FIGURE 1: SITE OVERVIEW MAP

Project Name: 1065 SW 170th Avenue
 Beaverton, Oregon 97006
Project Number: 19-30074

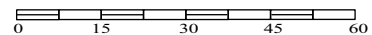




LEGEND

✕ Proposed Sampling Locations

APPROXIMATE SCALE IN FEET



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FIGURE 2: SITE SAMPLING MAP

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