

CONTAMINATED MEDIA MANAGEMENT PLAN



Former Myers Container Site 10103 NE Marx Street Portland, Oregon

ECSI File # 2062

Prepared for:

CRP/Crest Salvage & Marx Owner, L.L.C.

1346 The Alameda, Suite 7-285 San Jose, California 95126

Issued on:

June 7, 2024

Project No. 1460-23001-10

Purpose

This Contaminated Media Management Plan (Plan) applies to any person or entity hired or granted permission to conduct surface and subsurface work on the subject site (10103 NE Marx Street in Portland, Oregon). This Plan applies to site development, operations, maintenance, and other work, and:

- Has been designed as a tool for architects, engineers, and others involved in the design, planning, and implementation of subject site redevelopment.
- Has been prepared in accordance with State of Oregon requirements.
- Outlines methods to minimize risk to human health and the environment from historic contamination beneath the site.
- Provides guidance for managing impacted soil and ground water.

Use

This plan has been prepared for use during site redevelopment. The property owner must provide a copy of this Plan to any firm or person with the potential to come in contact with the contaminated media at the subject site (e.g., contractors, maintenance workers, landscapers, utility companies, etc.) prior to starting subsurface work.

The Plan includes generic requirements for conducting surface and subsurface work. Detailed sampling/work plans may need to be developed, depending on the nature of the subsurface work at the property. The Plan covers the following:

- Explains the current understanding of impacted media at the site.
- Details contractor, subcontractor, field personnel and permitting requirements.
- Outlines guidance and requirements for managing impacted media in a manner that is protective of human health and the environment.

A copy of this Plan will be made available to all personnel involved as a reference, with at least one copy being kept onsite during work. In order to document review and understanding, an acknowledgement page has been prepared (Appendix A).

Plan Revisions

Users of this Plan are advised that Oregon Department of Environmental Quality (ODEQ) regulations and other applicable state or federal regulations and guidance may change in the future and applicable regulations should be reviewed prior to commencing any subsurface work. If it is believed that local and State regulations related to contaminated soils have changed, revisions to the Plan may be necessary to reflect current regulatory standards. Additionally, the Contact Information listed in Attachment B should be kept current.

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Contaminated Media Management Plan

for:

Former Myers Container Site

10103 NE Marx Street Portland, Oregon ECSI File # 2062

Has been prepared for the sole benefit and use of our Client:

CRP/Crest Salvage & Marx Owner, L.L.C.

1346 The Alameda, Suite 7-285 San Jose, California 95126

and its assignees

Issued
June 7, 2024

by:



Assumptions and Limitations

This Contaminated Media Management Plan (Plan) is designed to provide earthwork contractors with guidance for the proper handling and management of potentially contaminated media. This document is intended to be used as a general overview document for use by the excavation contractor during any earthwork completed at the project site. This Plan is reflective of site conditions discovered through environmental site assessments. Required actions described in this Plan are consistent with State of Oregon and Oregon Department of Environmental Quality rules, regulations and guidance enforce and available as of the date of issue. The user of this Plan is advised to check for any updates that may be applicable to a specific scope of work being conducted under this Plan. Each contractor and subcontractor are responsible for the safety of its employees, including compliance with applicable OSHA regulations and compliance with all specifications for the project.

No warranties are expressed or implied concerning potential contaminants or environmental media not addressed through sampling and analysis. EVREN Northwest, Inc. is not responsible for conditions or consequences arising from information not available at the time of Plan preparation. This Plan was prepared in accordance with generally accepted professional practice in the area at this time for the exclusive use of our client and their agents or authorized third parties. No other warranty, either expressed or implied, is made.

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- B Site Contacts

List of Acronyms and Abbreviations

AST above-ground storage tank
CFSLs clean fill screening levels
Client Blackstone Consulting
DRO diesel-range organics

DU decision unit

ENW EVREN Northwest, Inc.
GRO gasoline-range organics

ISM Incremental Sampling Methodology

ITRC Intestate Technology & Regulatory Council

mg/Kg milligram per Kilogram
MRLs method reporting limits

NPDES National Pollutant Discharge Elimination System

OAR Oregon Administrative Rule

ODEQ Oregon Department of Environmental Quality
OSHA Occupational Safety & Health Administration

OWRD Oregon Water Resources Department

PID photoionization detector
ppmv parts per million by volume
RBC risk-based concentration

RCRA Resource Conservation and Recovery Act

RRO residual(heavy) oil-range organics

SAP sampling and analysis plan

SLRBCs screening-level risk-based concentrations

UST underground storage tank
VOC volatile organic constituent

Site Setting & Environmental Conditions 1.0

This Plan applies to the property located at 10103 NE Marx Street in Portland, Oregon (subject site or subject property). Please reference Figure 1 for a site vicinity map and Figure 2 for site features.

1.1 Site Location and Setting

The 5.3-acre subject property is identified as Multnomah County parcels R235909 and R235911. The subject address is 10103 NE Marx Street in Portland, Oregon (Figures 1 and 2).

The property is located in an industrial district reclaimed from former wetlands within the alluvial flood plain of the Columbia River and developed with a single-story warehouse constructed in the 1970s. There is an excavated slope on the southern and western edges of the property and two retention ponds/bioswales in the central portion of the site. Except for the excavated slopes and drainage ponds, the site has been paved or covered with compacted gravel and dirt. A chain link and corrugated metal fence surrounded the site perimeter. Land use in the vicinity includes a mix of industrial properties and I-205. The subject property was vacant and not in use at the time of Plan preparation.

The subject property is bounded to the northwest by I-205. Johnson Lake lies beyond I-205 right-of-way. Several industrial properties are found nearby, including an Auto body shop and Painting business, automobile salvage yard, and industrial warehouse buildings.

Historical Use. According to historical information provided by the Client, various business entities have occupied the subject property since the 1970s. Industrial activities on the subject property have included drum reconditioning and intermediate bulk container processing operation from approximately the 1970s until the site was reportedly vacated in 2022. Site operations included restoration of empty containers previously used for chemical and liquid storage by various industrial and agricultural operations. Reportedly containers were cleaned inside the warehouse building using phosphate detergent, hot water and other cleaning solutions. The refurbished containers were sold to customers for re-use.

Topography. The subject property and surrounding area lie within the historic flood plain of the Columbia River, between the Columbia River and the Columbia Slough in Northeast Portland, Oregon.

The natural topography of the slough mainstem channel and floodplain near the subject property has likely been significantly modified to accommodate agricultural and industrial development. Currently, the modified surface topography of the site is generally level to slightly sloping toward the center of the site with up to 13-feet of relief across the site.

Regional and Site Geology. The site is located south of the Columbia River in the east portion of the Portland Basin. The Portland Basin is part of the Puget-Willamette Lowland, a topographic and structural trough that separates the Coast Range to the west and the Cascade Mountains to the east. The Coast Range is composed of uplifted Tertiary marine sedimentary rocks and related volcanic and intrusive rocks. The Cascade Range is an accumulation of volcanic lavas and debris erupted from continental volcanoes.

¹ Evarts, R.C. and O'Connor, J.E., 2008. Geologic Map of the Camas Quadrangle, Clark County, Washington, and Multnomah County, Oregon: U.S. Geological Survey Scientific Investigations Map 3017, 1:24,000.

Tertiary marine strata and older Cascade volcanic rocks interfinger at depth and form the bedrock foundation beneath the Willamette Valley.²

The subject site is and surrounding properties are located on Quaternary (Holocene and Anthropocene) Alluvium (Qa or Qal) composed of stratified clay, silt, sand, and gravel of mixed lithologies deposited along channels and flood plains of major rivers and valley bottoms of tributary streams. Error! Bookmark not defined.,3,4,5,6 These sediments locally includes organic-rich mud in valley bottoms. Soils encountered during previous assessments⁷ included 9 to 13 feet of silt and fine sand overlying medium to coarse gravels, consistent with imported fill sands, alluvium, and Overbank (OB) Deposits.

Surface Water and Ground Water. Nearby surface water bodies include Johnson Lake and the Columbia Slough, located within approximately one-quarter (0.25) mile of the property. The Columbia River is located approximately 1 mile north of the subject property.

The upper-most regional ground water aquifer which supplies occur within the water-bearing gravels of the Troutdale Gravel Aquifer beginning at depths of over 200 feet bgs. In addition to the regional ground water aquifer, soil borings advanced at the subject site encountered a shallow, perched ground water aquifer within fine-grained sediments less than 15 feet bgs beneath the subject property. Due to the close proximity to the Columbia River, which is tidally influenced in the Portland area, the general flow of ground water beneath the subject vicinity is also anticipated to be partially influenced by tidal fluctuations. However, the predominant ground water flow direction is anticipated to follow regional surface topography and generally flow north to northwest.

1.2 Summary of Regulatory and Environmental Investigation History

Blackstone prepared a Phase I Environmental Stie Assessment (ESA) of the 5.3-acre subject property in January 2023. The stated purpose of Blackstone's Phase I ESA was to "investigate and identify *recognized environmental conditions* (RECs) in accordance with American Society for Testing and Materials (ASTM) Standard E1527-21. ENW understands the Phase I ESA was performed in anticipation of a potential property transaction. The findings of the Phase I ESA were as follows:

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² McFarland, William D., and David S. Morgan, 1996. Description of the Ground-Water Flow System in the Portland Basin, Oregon and Washington, US Geological Survey Water-Supply Paper 2470-A, 58 pgs., and plates.

³ Hogenson, G.M. and Foxworthy B.L., 1965. *Ground Water in the East Portland Area, Oregon:* U.S. Geological Survey Water Supply Paper 1793, 77 p., Map Scale 1:62,500.

⁴ Hartford, S.V. and McFarland, W.D., 1989. Lithology, Thickness, and Extent of Hydrogeologic Units Underlying the East Portland Area, Oregon: U.S. Geological Survey Water-Resources Investigations Report 88-4110, 20 p., Map Scale

⁵ Madin, I.P. (1990). *Earthquake-Hazard Geology Maps of the Portland Metropolitan Area, Oregon*: Text and Map Explanation, 21 p., Mt. Tabor Quadrangle, Map Scale 1:24,000.

⁶ Wells, R.E. and others, 2020. *Geologic Map of the Greater Portland Metropolitan Area and Surrounding Region, Oregon, and Washington*: U.S. Geological Survey Scientific Investigations Map 3443 and Pamphlet, 55 p., Map Scale 1:63,360.

⁷ ENW, Ground Water Delineation and Focused Beneficial Water User Determination, Industrial Property, 10103 NE Marx Street, Portland, Oregon. September 8, 2023.

⁸ Blackstone, January 15, 2023. *Phase I Environmental Site Assessment, 5.3-Acre Industrial Property, 10103 NE Marx Street, Portland, Oregon*

- Prior Use of Subject Property: The subject property is listed on various regulatory databases for the generation of hazardous wastes, including ignitable/corrosive wastes, chromium, lead, and solvents; and the Underground Injection Control (UIC) database for an unregistered storm water drainage UIC. The subject property was identified as a "significant noncomplier" between 2020 and 2022, with informal enforcement actions issued. Although previous environmental investigations have been completed at the subject property, the investigations were limited to surficial soil sampling, did not include characterization or investigation of groundwater, and did not address the prior operational areas within the warehouse building. Based on the long-term use of the subject property as a drum reconditioning and container processing facility (approximately 45 years), the limited data available regarding the prior operational areas and groundwater at the subject property, and the recent regulatory violations issued, the prior use of the subject property as a steel drum reconditioning and container processing facility is considered a REC.
- Current/Prior Use of Adjoining Properties: Industrial uses on adjoining properties to the east, southeast, and southwest date to the 1960s and 1970s and include an auto wrecking/salvage yard, vehicle maintenance, sandblasting, steam cleaning, engine rebuilding/repair, and recycling operations. Regulatory listings associated with the properties note the use of underground storage tanks (USTs), hazardous waste generation and management, and ODEQ involvement recommending further investigation. In addition, the industrial property uses in the subject property area commenced prior to the establishment of modern regulations regarding the handling of hazardous materials and waste. Blackstone encountered no evidence of comprehensive environmental investigations into historical adjoining property uses from ODEQ online resources; therefore, based on the inferred groundwater flow direction and close proximity to the subject property, the current and former industrial uses of adjoining properties are considered RECs and vapor encroachment concerns (VECs).
- Polychlorinated biphenyl (PCB)-Impacted Soil and Stormwater Runoff: The subject property (also known as the Former Myers Container Site) was identified as ECSI Site ID #2062 in association with the investigation and cleanup actions focused on PCB-contaminated soil in stormwater. According to ODEQ records, the subject property was previously owned by various entities and operated as a drum reconditioning and intermediate bulk container processing facility since 1977. In the late-1990s/early-2000s, the subject property was evaluated due to elevated levels of PCBs found in sediment in the nearby Johnson Lake to the west, which is the discharge point for the two stormwater runoff ponds located on the subject property. A potential source of the PCBs was attributed to historical container management operations at the subject property. Source control measures were conducted at the subject property in 2003, and later in 2012-2013. These cleanup measures included the excavation and removal of PCB contaminated shallow soil and sediment from select surface areas, the on-site ponds, and the associated catch basin/pipeline/culvert. These source control measures adequately addressed PCB contamination along the stormwater migration pathway and residual PCB contamination identified in the subject property shallow soil. A No Further Action (NFA) determination was issued by ODEQ for the subject property on September 17, 2014. Based on the completed cleanup actions and the issuance of a NFA letter, the PCB contamination identified in near-surface soil resulting from historic container management operations at the subject property is considered a HREC.

- Former Underground Storage Tanks (USTs): Two former USTs were located on the subject property and removed in 1997. The locations and contents of the USTs were not reported. However, regulatory information indicated that confirmation soil sampling was performed, and up to 302 ppm diesel-range petroleum hydrocarbon contamination was discovered during the decommissioning, which was below the applicable 500 ppm cleanup level. Groundwater was reportedly not encountered during the UST removal activities. The ODEQ issued a NFA determination for the removal of the USTs on September 26, 2000. Based on the absence of significant contamination and issuance of a NFA letter, the former USTs are considered a HREC.
- Asbestos-Containing Materials (ACM): Based on the construction date of the subject property building (circa 1977-1978) and the limited nature of Blackstone's visual survey, Blackstone recommends preparing and implementing a subject property-specific Asbestos Operations and Maintenance (O&M) Program. In addition, Blackstone recommends compliance with Occupational Safety and Health Administration (OSHA) regulations requiring the identification of presumed ACM as well as training, notification, and labeling requirements in operational areas.

In February and April of 2023, Blackstone engaged ENW to conduct a *Focused Phase II ESA*⁹ to further investigate possible environmental concerns associated with the historical uses of the subject property. The results of the Focused Phase II identified environmental impacts by hazardous substances and/or petroleum hydrocarbons in the following areas.

- Pond Sediments (DU01 and DU02). Elevated PCBs, total lead, and PAHs in pond sediments are
 potential sources of storm water pollutants that, if discharged offsite, could adversely impact
 nearby surface water bodies within the Columbia Slough Source Control Study Area.
- Sump Features Inside Warehouse (MA02 and MA03). Soils are impacted with DRO, RRO, PAHs, and VOCs, including chlorinated VOCs PCE and TCE and shallow ground water is impacted PCE/TCE, vinyl chloride, GRO, DRO, RRO, ethylbenzene, and naphthalene. Ground water impacts extend west to B17.
- Suspected UST (MA10). The abandoned UST near the southwest corner of the warehouse is a possible source of petroleum hydrocarbons in shallow ground water near B12 immediately north of the UST. Ground water impacts include moderate levels of GRO, DRO, RRO and naphthalene. Ground water impacts appear to increase to the north at B17 and northwest at B18 and may be comingling with ground water containing petroleum and chlorinated solvents beneath the warehouse building. The comingled ground water plumes appear to be delineated further to the north near B07 and to the northwest by B20, to the south by B06 and B19, and to the east by B16. The sandy fill material observed within the UST does not appear to be impacted with petroleum hydrocarbons or RCRA 8 metals above applicable screening levels.
- Vapor Intrusion Conditions Beneath On-site Warehouse Building. PCE and/or TCE are present at SUB01, SUB02, SUB04, SUB05, SUB06 and in soil gas sample SG01 at concentrations exceeding screening levels. The source of chlorinated compounds in sub-slab vapor and soil gas appears to

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⁹ ENW, May 18, 2023. Focused Phase II Environmental Site Assessment, Industrial Property, 10103 NE Marx Street, Portland, Oregon

be related to PCE/TCE and vinyl chloride impacts to soil and ground water beneath the southern portion of the warehouse building.

• West Yard and North Yard Areas. Soil impacts were generally absent in borings B07 and B20 in the West Yard and B08, B09, B10, and B11 in the North Yard. Reconnaissance ground water samples from these borings revealed only relatively low, laboratory-flagged detections of DRO and chloroform exceeding the SLRBCs. Chloroform is often detected in areas where chlorinated tap water from a municipal water source may have leaked from subsurface water lines. These findings suggest relatively little environmental impacts beneath the yard areas.

In July of 2023, Blackstone engaged ENW to delineate impacts of petroleum hydrocarbon-related VOC and chlorinated VOC (cVOC) plumes in shallow ground water underlying south Tax Lot 2E16D-02800-A1. Analysis of soil and reconnaissance ground water samples from direct-push borings B21 through B25 completed in the OB deposits showed:

- Neither GRO, DRO, RRO, nor VOCs were detected in soil/water interface or reconnaissance ground water samples above laboratory MRLs.
- Only low concentrations of PAHs (specifically fluoranthene and pyrene) were detected in a sample of reconnaissance ground water sampled from boring B21. These PAH concentrations were very low, and no evidence of impacts was noted during drilling at this location.

The estimated extent of impacts to shallow ground water on site is shown on Figure 4.

1.3 Overview of Known Residual Contamination

All contractors are advised that the information presented herein is based on data available through sampling under one or more specific Scopes of Work; there is no practice that is thorough enough to absolutely identify the presence of all hazardous substances that may be present at a given site.

Previous investigations have identified impacted soil/sediment at the subject site as follows:

- Benzene was detected in sample location B14 at 0.056 milligrams per Kilogram (mg/Kg), which is greater than both ODEQ's SLRBC (0.023 mg/Kg) and CFSL (0.023 mg/Kg).
- Ethylbenzene was detected above its ODEQ's SLRBC (0.22 mg/Kg) and CFSL (0.22 mg/Kg) in sample locations B17 and B18 in concentrations ranging from 0.3 to 2.9 mg/Kg.
- Naphthalene was detected above its ODEQ's SLRBC (0.077 mg/Kg) and CFSL (0.077 mg/Kg) in sample locations B02, B13, B17, and B18 in concentrations ranging from 0.14 to 1.6 mg/Kg.
- Tetrachloroethene was detected above its ODEQ's SLRBC (0.46 mg/Kg) and/or CFSL (0.18 mg/Kg) in sample locations B01, B02, and B13 in concentrations ranging from 0.3 to 13 mg/Kg.
- Trichloroethene was detected above its ODEQ's SLRBC (0.013 mg/Kg) and CFSL (0.013 mg/Kg) in sample location B02 at a concentration of 0.056 mg/Kg.

¹⁰ ENW, September 8, 2023. Ground Water Delineation and Focused Beneficial Water Use Determination, Industrial Property, 10103 NE Marx Street, Portland, Oregon

- 10103 NE Marx Street, Portland, Oregon
- Lead was detected above its ODEQ's SLRBC (30 mg/Kg) and CFSL (28 mg/Kg) in sample locations DU01 (in sediment), DU02 (in sediment), and B06 in concentrations ranging from 34.4 to 54.3 mg/Kg.
- Total polychlorinated biphenyls were detected above its ODEQ's SLRBC (0.23 mg/Kg) and CFSL (0.23 mg/Kg) in sample locations DU01 (in sediment), DU02 (in sediment), and B06 in concentrations ranging from 0.3 to 0.51 mg/Kg.
- Xylenes were detected above its ODEQ CFSL (1.4 mg/Kg) in sample location B17 at a concentration of 16 mg/Kg.
- Benzo[a]pyrene was detected above its ODEQ's SLRBC (0.11 mg/Kg) and CFSL (0.11 mg/Kg) in sample location DU02 (in sediment) at a concentration of 0.16 mg/Kg.
- Gasoline-range organics (GRO) were detected above its ODEQ's SLRBC (31 mg/Kg) and/or CFSL (520 mg/Kg) in sample locations B13, B17, and B18 in concentrations ranging from 58 to 550 mg/Kg.
- Diesel-range organics (DRO) were detected above its ODEQ's SLRBC (1100 mg/Kg) and/or CFSL (90 mg/Kg) in sample locations B02, B06, B13, B17, and B18 in concentrations ranging from 750 to 2000 mg/Kg.
- Residual(heavy)-oil range organics (RRO) were detected above its ODEQ's SLRBC (1100 mg/Kg [screened against SLRBC for DRO]) in sample locations B02, B06, B13, B17, and B18 in concentrations ranging from 2,300 to 11,000 mg/Kg.

Previous investigations have identified impacted reconnaissance ground water at the subject site as follows:

- Benzene was detected above its ODEQ's SLRBC (0.46 micrograms per Liter [μ g/L]) in sample locations B14 and B17 in concentrations ranging from 1.2 to 2.7 μ g/L.
- Chloroform was detected above its ODEQ's SLRBC (0.22 μg/L) in sample locations B09, B10, B11, and B15 in concentrations ranging from 1.0 to 1.1 μg/L.
- Tetrachloroethene was detected above its ODEQ's SLRBC (12 μ g/L) in sample locations B13 and B15 in concentrations ranging from 62 to 86 μ g/L.
- Trichloroethene was detected above its ODEQ's SLRBC (0.49 μ g/L) in sample locations B13 and B15 in concentrations ranging from 2.9 to 9 μ g/L.
- 1,2,4-Trimethylbenzene was detected above its ODEQ's SLRBC (54 μ g/L) in sample location B17 at a concentration of 120 μ g/L.
- Vinyl chloride was detected above its ODEQ's SLRBC (0.027 μg/L) in sample locations B13 and B14 in concentrations ranging from 0.21 to 0.24 μg/L.
- Xylenes were detected above its ODEQ's SLRBC (190 μ g/L) in sample location B17 at a concentration of 610 μ g/L.
- Benz[a]anthracene was detected above its ODEQ's SLRBC (0.03 μ g/L) in sample location B17 at a concentration of 0.082 μ g/L.

- GRO was detected above its ODEQ's SLRBC (110 μ g/L) in sample locations B12, B13, B14, B17 and B18 in concentrations ranging from 120 to 2700 μ g/L.
- DRO was detected above its ODEQ's SLRBC (100 μg/L) in sample locations B06, B11, B12, B13, B14, B17, B18, and B19 in concentrations ranging from 120 to 14,000 μg/L.
- RRO was detected above its ODEQ's SLRBC (300 μ g/L) in sample locations B12, B13, B14, B17, and B18 in concentrations ranging from 6800 to 55,000 μ g/L.

None of the residual soil/sediment impacts were identified as a potential risk to construction or excavation workers. The media-handling protocol described in this Plan is intended to minimize the risk to site workers during earthwork.

Please reference Figure 3 for soil and sediment sampling locations and Figure 4 for reconnaissance ground water sampling locations. Table 1 provides a summary of soil sampling results, Table 2 provides a summary of reconnaissance ground water sampling results, Table 3 provides a risk driver summary for soil, and Table 4 provides a risk driver summary for reconnaissance ground water.

2.0 Site Work Initiation

This section describes work to be conducted and requirements to be met *prior* to beginning site work.

2.1 Notifications, Permits and Other Approvals

All notifications, legally required permits or other approvals required to conduct the work to be performed will be made or obtained prior to starting work at the site. Such permits may include a National Pollutant Discharge Elimination System (NPDES) 1200-C Construction Stormwater Permit, a permit from the City of Portland, and an Erosion and Sediment Control Plan. ODEQ's Water Quality Underground Injection Control program should also be notified prior to proceeding with work.

2.2 Contractor Requirements

Contractors and/or subcontractors hired to conduct surface and subsurface work at the site will be competent and experienced in the management of media impacted with hazardous substances. Preplanning of anticipated work with the Environmental Consultant (contact information in Attachment B) is recommended.

2.3 On-Site Personnel

All field personnel who have the potential for coming in contact with impacted media will:

- Have reviewed and be familiar with the Health and Safety Plan (see Section 2.4).
- Have completed the Occupational Safety and Health Administration (OSHA) 40-hour or 24-hour Supervisory Hazardous Waste Operations and Emergency Response (HAZWOPER) course, or if it has been greater than one year since completion, a current 8-hour HAZWOPER refresher certification.

2.4 Health and Safety Plan

Any contractor conducting earthwork at the subject site must prepare and implement a site-specific Hazard Communications Plan. The Hazard Communications Plan fulfills "worker right to know" requirements (29 CFR 1926.59). A copy of the Hazard Communications Plan must be submitted to the Owner prior to the start of work on the project. During work on the project, the Hazard Communications Plan must be posted at the project site. The general contractor is responsible for notifying any subcontractors of pertinent environmental conditions. Subcontractors may either adopt the prime general contractor's Hazard Communications Plan or prepare their own Hazard Communications Plan. This document should be used in conjunction with, not in place of, the Hazard Communications Plan and the project specifications. The general contractor and subcontractor are responsible for the safety of its employees, including compliance with applicable Occupational Safety & Health Administration (OSHA) regulations, and compliance with all specifications in the technical specifications for the project.

In addition, a Health and Safety Plan specific to the work to be performed will be prepared according to industry standards. At a minimum, OSHA standards specific to the work to be performed will be met. The Health and Safety Plan should be prepared by a qualified specialist knowledgeable about health and safety issues, the contaminants identified at the site, the previously documented site conditions, and the proposed contractors' scope of work.

3.0 Soil/Sediment Management

ODEQ requires contaminated media to be adequately characterized to determine management options. When soil is highly contaminated, the generation, treatment, transportation, and disposal may fall under both state and federal hazardous waste regulations.¹¹ Contaminated media that is not hazardous waste is regulated under Oregon Administrative Rule (OAR) Chapter 340-093 for solid waste.

For the purposes of this Plan, contaminated soil/sediment is defined as soil/sediment with concentrations of hazardous substances greater than the CFSLs (ODEQ, CFSLs, February 2019), or screening-level risk-based concentrations (SLRBCs; see OAR 340-122-0115). It is important for field personnel to know how to identify, characterize (if appropriate), and manage contaminated soil/sediment.

A detailed sampling and analysis plan is outside the scope of this document as the specifics would be determined by the scope(s) of work to be conducted at the site. Analytical requirements will be determined by the Environmental Consultant at the time sampling is necessary. To minimize expenses from any surface or subsurface project, we recommend reviewing the scope with the Environmental Consultant.

¹¹ When soil is contaminated by a listed or characteristic hazardous waste, then soil contains a hazardous waste and must be managed accordingly. ODEQ hazardous waste generator requirements are triggered when the contaminated soil is removed from its original location.

3.1 Identification of Impacted Soil/Sediment

See Section 1.3 and Figure 3 for an overview of known residual soil/sediment impacts on site. It should be noted that some constituents (i.e., metals) may not be distinguishable by field screening methods. Potentially impacted soil may be identified using any of the following methods:

- Visual observation of discolored soil (staining).
 - Generally, soil/sediment that is contaminated with petroleum hydrocarbons exhibits gray or black staining, although other contaminants and natural conditions may also cause staining.
- Olfactory observation of petroleum odor.
 - Petroleum products, solvents, and other types of contaminated soil/sediment may release vapors when exposed to the atmosphere. If concentrated enough, these vapors will be interpreted as an odor. Odors may also be present in contaminated groundwater. Odor can be subjective, and inhalation of vapors from impacted soil/sediment is harmful to human health. Therefore, odor is considered an inadvertent field indicator and will not be used for continuous screening of soil/sediment.

Sheen

- Sheen is another indication of petroleum contamination. Soil/sediment with a sheen may appear shiny and reflective. Sheens from heavily impacted soil/sediment may appear iridescent with rainbow-like colors. Sheens may also be observed in contaminated groundwater.
- Collection and analysis of soil/sediment for constituents of concern, if appropriate.
- Indication of impacts by instrumentation designed for screening for volatile constituents (e.g., photoionization detector [PID]).
 - o PID readings involve the measurement of headspace vapors originating from a soil/sediment sample. PID screening is performed by placing a soil/sediment sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil/sediment to the air trapped in the bag. The probe of a PID is inserted into the bag, which measures VOC vapor (petroleum constituent) concentrations in units of ppm. A PID is designed to quantify VOC vapor concentrations in the range between 1 and 2,000 parts per million by volume (ppmv). It should be noted that a PID may give false positive readings in the presence of water vapor and rain may also affect performance. High humidity can cause lamp fogging and decreased sensitivity. This can be significant when soil moisture levels are high.
- Where both soil/sediment and ground water are present, soil/sediment impacts may be indicated by observation of iridescent sheen or separated fluid phases (i.e., immiscible liquids).

Section 1.3 and Figure 3 describe the areas where potential residual soil/sediment impacts could be present on the subject property. However, anyone performing subsurface work at the site should be prepared for the possibility to encounter impacted soil/sediment in other areas as well.

It is important to note that there may be impacted media on site in areas that ENW has not assessed. If soil/sediment with significantly different characteristics than those previously identified are excavated at the site, it may need to be appropriately characterized by laboratory analyses prior to disposal or reuse onsite. It should be brought to the attention of the Project Manager or Environmental Consultant. The Environmental Consultant will notify ODEQ, if applicable, to ensure proper characterization and management under this scenario.

If samples are to be collected, they should be collected by personnel knowledgeable in soil sampling methods and protocols, ensuring that appropriate sample selection, collection (whether discrete or composite), labeling, and storage methods are followed.

If soil/sediment exhibiting evidence of contamination or other debris associated with chemical contamination is encountered during excavation work, it should be brought to the attention of the Environmental Consultant. However, it must be emphasized that some impacted soil/sediment does not exhibit any physical indication of their impacts (e.g., no odor or discoloration or PID response associated with metals-impacted soils).

3.2 Field Screening Protocols

Soil/sediment field screening will include observation of any disturbed project site soil/sediment. The field screening process includes the following:

• Observe the sidewalls and bases of excavations (or trenches) for evidence of possible contamination.

- Sampe collection, if warranted (based on field screening)
 - If sampling is deemed necessary, three inches of soil/sediment will be scraped from sidewalls prior to collection of samples. If samples are collected from an excavation bucket, they should be collected from the interior and away from the sides of the bucket.
 - If sampling is deemed necessary, collect grab samples by hand or trowel (approximately one hand full) that are representative of the material being stockpiled. If used, the trowel will be decontaminated between sampling intervals.
 - Retain a portion of the samples (approximately the size of half a sugar cube) for sheen testing that includes dropping the soil/sediment into a black pan to observe the degree of soil/sediment sheen (no sheen, slight sheen, moderate sheen, or heavy sheen).
 - The majority of the grab sample will be placed into a plastic bag with trapped air. The bagged sample is allowed to sit for approximately one minute and then tested for headspace vapors using a hand-held PID. Based on the routine field screening process and the use of standard bag size, it is assumed that the amount of trapped air in each bag is approximately equivalent for all field-screened samples. Calibration of the PID will be conducted on a daily basis and will be recorded in a calibration log. The calibration log will document the PID model calibration standard used and background level after calibration.
- Field screening documentation (i.e., staining, sheen, headspace vapor measurements, and odors)
 and a brief description of the soil/sediment type shall be recorded in field screening logs. The field
 logs will indicate areas and associated volumes of excavated material requiring stockpiling for
 further evaluation.

3.3 Management of Impacted Soil/Sediment

During site excavation, all soil/sediment will be monitored and field-screened for potential impacts (see Sections 3.1 and 3.2). If suspect subsurface features are encountered (e.g., underground storage tanks, piping, dry wells, sumps, etc.) or field-screening suggest impacts, all excavated or disturbed soil/sediment in these areas will be managed as impacted soil/sediment unless the Project Manager chooses to conduct additional sampling and testing (according to ODEQ-approved methods) and determines the soil/sediment is not impacted. If any soil/sediment is identified through observation or olfactory indication (sight or smell) as being impacted outside previously identified areas (Section 1.3), this will be brought to the attention of the Environmental Consultant (see Attachment B for contact information). Soil/sediment testing, if appropriate, would be conducted to determine the regulatory status of impacted soil (e.g., soil with contaminants at levels triggering special regulatory, handling, and/or management requirements) and to confirm removal of impacted soil/sediment, if applicable.

If impacted soil/sediment is excavated, it must be managed as a contaminated material. Unless otherwise directed by the Project Manager, the preferred method of excavation and disposal of impacted soil/sediment will be to load the material directly into transport vehicles for off-site disposal.

3.3.1 Stockpiling

Soil/sediment generated during excavation activities may be temporarily stockpiled for further evaluation (for example, if soil/sediment needs to be characterized prior to exporting from the subject site). Soil/sediment that is placed in temporary stockpiles must be well maintained at all times. All stockpiled soil/sediment must be placed either (1) in enclosed and covered metal bins with plastic liners; (2) in sealed 55-gallon drums; or (3) on impermeable plastic sheeting (minimum 6-mil thick) with a berm around the perimeter of the stockpile and a plastic sheeting cover. The plastic sheeting and berm prevent the runoff of stockpiled soil/sediment contaminants to surrounding areas. The berm may be constructed with hay bales or other equivalent methods approved by the Owner. The bottom plastic sheeting should be lapped over the berm materials, and the soil stockpile within the berm should also be covered with plastic sheeting to prevent erosion or leaching of contaminants. The upper plastic sheeting covering the soil stockpile should be secured using sandbags or equivalent. The upper plastic sheeting prevents the stockpiled soil/sediment from being exposed to precipitation and wind.

These soils/sediments may be temporarily managed on-site for no more than 30 days. If stockpiled soil and/or sediments must remain at the site longer than 30 days, a Solid Waste Letter of Authorization must be obtained from ODEQ. If soil/sediment stockpiles are to be exported offsite, testing of the stockpile to confirm appropriate disposition is required (see Section 3.3.2). Prior to unrestricted off-site disposal of stockpiled soils, the owner, consultant, or ODEQ on behalf of the owner must complete a Clean Fill Determination and show that the material meets all criteria specified in ODEQ's Clean Fill Determination guidance document (updated June 2019).

3.3.2 Characterization of Soil/Sediment to be Exported

Soil/sediment derived from the site shall be sampled using the guidance provided in the Interstate Technology & Regulatory Council (ITRC) Incremental Sampling Methodology (ISM) guidance document. Representative samples from temporary soil/sediment stockpiles will be collected using ISM, through which multiple "increments" (samples of equal mass) are collected across a targeted area, identified as a "decision unit" or DU. The increments from each DU are composited and processed to derive a statistically valid average concentration across the target area.

ISM subsamples will be collected using a decontaminated stainless-steel hand auger and/or stainless-steel hand shovel and/or excavator bucket (for large stockpiles). Sampling depths will depend on the volume and dimensions of the stockpile and will be selected to ensure that the upper, middle, and lower portions of the stockpile are equally represented, based on stockpile geometry. For the purposes of statistical quality control, two replicate samples may be collected from a stockpile, in addition to an initial sample. A total of 50 increment subsamples will be collected from each stockpile (along with 50 subsamples for each replicate sample, as applicable) and will be placed into their own dedicated laboratory-provided one-gallon glass sample jars, uniquely labelled, and immediately placed in cooled storage pending delivery to the laboratory. Sampling personnel will wear fresh Nitrile gloves, and all sampling equipment will be decontaminated prior to sampling each stockpile (and replicates, as applicable) to prevent cross-contamination between samples.

ISM samples will be submitted to a laboratory for processing in accordance with ITRC protocols, prior to analysis. Sampling shall be conducted by the Environmental Consultant.

3.3.3 Off-Site Disposal of Impacted Soil

Unless otherwise directed by the Project Manager, the preferred method of excavation and disposal of impacted soil/sediment will be to load the material directly into transport vehicles for off-site disposal. Transport to a landfill authorized to accept contaminated materials will require an approved waste profile. It is anticipated that disposal of impacted soil/sediment, if necessary, will be acceptable at a Resource Conservation and Recovery Act (RCRA) Subtitle D Landfill Facility. The data does not suggest the presence of hazardous waste at the site. If, however, hazardous waste is encountered, it will be properly characterized for disposal at a hazardous waste landfill.

Upon approval from the receiving facility, the stockpiled material can be loaded into trucks for transport. The contractor must exercise care during loading of the potentially contaminated soil to minimize spillage of the soil/sediment onto the ground surface. All trucks leaving the project site must be free of loose soil/sediment on the exterior of the trucks and may require covers. Tire wash stations and coarse gravel aprons at the points of egress/ingress should be considered, when appropriate, to avoid "track off" of soil. Contaminated soil/sediment loaded into trucks should be covered if weather conditions could cause soil to blow out (dry, warm, or windy conditions) during transport to the disposal facility. The contractor must use care not to track soil onto city roads. Trucks will not be allowed to leave the site if liquids are draining from the load. Transport tracking tickets may be required to document delivery to the approved disposal facility for each individual truck leaving the project site.

3.3.4 Off-Site Disposal of Soil/Sediment Containing Buried Debris

Soil/sediment containing buried debris has not been identified on site. Should soil containing buried debris be encountered, the intended landfill for soil/sediment disposal should be contacted prior to transport of soil/sediment.

3.4 Cultural Resources

Cultural or archaeological artifacts have not been identified at the project site. However, if cultural or archaeological resources are inadvertently discovered during excavation, work in the area must stop and the Legislative Commission on Indian Services shall be notified by calling (503) 986-1067. The Oregon State Historic Preservation Office should be contacted regarding discovery or potential damage to archaeological sites. The Owner should also be contacted so that modifications to the work scope may be discussed.

3.5 Import Fill Characterization

If the importation of fill soils, other than soil purchased from a commercial source, such as compost and/or aggregate, is required for this project, the Environmental Consultant will prepare a Sampling and Analysis Plan (SAP) to document that fill being imported meets ODEQ's CFSLs, specifically testing for RCRA metals and petroleum hydrocarbons, to ensure concentrations in soil to be imported are not above established background concentrations in this area. The SAP for this testing will likely incorporate ISM and will be completed once the source for soil fill has been identified, if applicable. Environmental Professional must review this SAP and analytical results, and approve the import of materials used on site, prior to importation. Depending on the source and previous site use of the source material, analytical requirements may include contaminants beyond RCRA metals and total petroleum hydrocarbons. For

example, if fill is to be sourced from an agricultural property, imported fill will also be tested for pesticide residues.

3.6 Protective Measures for Workers

The media-handling protocol described in this Plan is intended to minimize the risk to site workers during earthwork as well as to future occupants of the site. This section provides general measures to be taken to protect workers from impacted soil.

On-site workers may be exposed to contaminants through incidental:

- Ingestion of soil/sediment.
- Dermal contact (through the skin).
- Inhalation of impacted airborne dust and vapor.

To reduce exposure:

- All personnel should minimize their direct contact with soil/sediment, and wear project-specific personal protective equipment identified by the Health and Safety Plan.
- Contaminated clothing should be washed with a strong detergent and hot water before reuse.
- Personnel should thoroughly wash their hands and other exposed body parts, as necessary, upon leaving the work area and before eating, drinking, or other activities.
- Release of dust and vapors to the air should be minimized, and all personnel should remain upwind of the work areas to the maximum extent practical.

3.7 Protective Measures for the Environment

This section provides general measures to be taken to protect the environment from contaminants in soil/sediment. Depending on construction scope, federal, state, and local permits or other project approvals will provide the detailed protective measures required. The environment may be exposed to contaminants through incidental:

- Wind-borne dispersion.
- Transport by surface water.
- Transport by site equipment or workers.
- Contact by public or environmental receptors (e.g., birds and animals) that enter the work area.

To reduce exposure:

- Control access to earthwork area through fencing, signage, or other means.
- Implement dust-control methods, if needed.
- Prevent surface water from leaving the work area.

3.8 Record Keeping

The contractor is responsible for keeping a detailed daily record of all soil/sediment excavation, stockpiling, export, and disposal of stockpiled soil/sediment. This includes the purpose, origin, destination, and volume of soil/sediment generated from the project site. The contractor is responsible for preparing a daily field report for distribution to the Owner and Environmental Consultant that identifies the amount of soil/sediment excavated, stockpiled, and/or transported off site and daily tonnage for each respective

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soil disposition. All soil/sediment excavation, handling, and disposal will be documented in these daily field reports by the contractor, and all field screening, soil/sediment sampling, chemical analyses and disposal receipts shall be documented in a summary report to be furnished to the Owner. If impacted media is stored onsite, documentation of the locations and photographs of the management/storage of the impacted media should be included. The following information must be submitted to the Environmental Consultant for all subsurface work:

- Company performing work.
- Brief description and purpose of the subsurface work.
- Documentation of the locations (aerial and vertical extents) where work was conducted, and any
 impacted media encountered. A photo-documentation log of the field work and survey or high
 accuracy GPS data is recommended.
- Documentation (including photographs, as appropriate) of the location of, method of collection, and analytical results of any samples collected and analyzed. Chain-of-custody documentation should also be retained with any analytical data.
- If any impacted media is stored on-site, dates and methods of storage.
- Disposition of any impacted media, including permit and disposal receipts, as appropriate. For any
 impacted media that is excavated and placed back on site, the date, location (both map and high
 accuracy GPS coordinates), volume of placement and confirmation of approval of onsite
 placement from Environmental Consultant (who contacted, date and time of contact and
 approval) as well as photo-documentation of the placed soil is required.

Based on these records, a post-development Plan may be prepared.

4.0 WATER MANAGEMENT

Ground water beneath the subject site is expected to be less than 15 feet below ground surface. However, shallower "perched" ground water may be present beneath the site. Firms conducting any excavation work or trenching should be prepared to encounter ground water (which may or may not be impacted). Additionally, surface water has the possibility of collecting in subsurface work areas and becoming impacted by residual soil/sediment contamination. Any water present during subsurface or surface work will need to be managed as described in this section.

4.1 Managing Removed Water

Any dewatering will require management using one of the following methods:

- Above-ground management in a temporary holding vessel prior to disposal. Temporary holding
 vessels prior to disposal may consist of a 55-gallon drum, a small above-ground storage tank (AST),
 or large ASTs (such as Baker or Frac-Tanks), or other suitable storage vessels, depending on the
 amount of water to be removed. During the dewatering process, care should be taken to minimize
 the uptake of soil and sediment.
- Direct transfer to a truck designed and permitted to transport such waste.
- Disposal into a sewer system, <u>if allowed</u>, must be pre-approved by the appropriate agency (e.g., the Portland Water Bureau and/or City of Portland) and pretreatment may be required.

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Any water removed from the ground should not be returned to the ground under any circumstances. Dewatered fluids may require sampling and testing, dependent upon the disposal method(s) to be used. Additionally, sampling can be conducted to show that dewatered fluids are not impacted (and can be disposed in an agency approved manner). Contact the Environmental Consultant to ensure correct sampling protocol and methods are used.

4.2 Record-Keeping for Removed Water

The following information must be submitted to the Environmental Consultant for each batch of water:

- Company performing work.
- Batch Identification.
- Batch laboratory results.
- Documentation of approval for discharge or waste manifest/receipt of trucking company.
- Date discharged/transported.
- Total gallons discharged/transported.

Once work is complete, this information will be summarized for all occurrences and submitted to the appropriate agencies by the Environmental Consultant.

	Location ID	DU01	DU02	B01	B02	В	03	B04	B05
	Sample ID	DU01-230214-0.5-IS	DU02-230214-0.5-IS	B01-2	B02-2	B03-5	B03-7	B04-9-SWI	B05-9-SWI
	ate Sampled	2/14/2023	2/14/2023	2/14/2023	2/14/2023	2/15/2023	2/15/2023	2/15/2023	2/16/2023
Depth S	ampled (feet)	0.5	0.5	2	2	5	7	9	9
	Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location	Sediment in West Retention Pond	Sediment in East Retention Pond	MA01: Stained concrete floor of AST compound inside Warehouse	MA02/MA03: trench and sump feature	MA04: Potential Filled Sump	MA04: Potential Filled Sump	South of Suspected UST	MA13: Former ASTs South of Warehouse
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents									
Benzene	c, v	<0.03 (ND)	<0.03 (ND)	<0.03 (ND)	<0.03 (ND)				
Bromodichloromethane	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Bromoform Bromomethane	C, V	<0.05 (ND) <0.5 (ND)	<0.05 (ND) <0.5 (ND)	<0.05 (ND) <0.5 (ND)	<0.05 (ND)				
Carbon tetrachloride	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND) <0.05 (ND)				
Chlorobenzene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Chlorodibromomethane (dibromochloromethane)	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Chloroethane (ethyl chloride)	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)				
Chloroform	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Chloromethane	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)				
1,2-Dichlorobenzene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.13				
1,4-Dichlorobenzene	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
1,1-Dichloroethane	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
1,1-Dichloroethene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
cis-1,2-Dichloroethene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
trans-1,2-Dichloroethene Dichloromethane	nc, v	<0.05 (ND)	<0.05 (ND) 6.8 lc	<0.05 (ND)	<0.05 (ND)				
EDB (1,2-dibromoethane)	c, v	<0.05 (ND)	<0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)				
EDC (1,2-dichloroethane)	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Ethylbenzene	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
MTBE (methyl t-butyl ether)	c, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Naphthalene	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.16				
iso-Propylbenzene (cumene)	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Tetrachloroethene (PCE)	C, V	<0.025 (ND)	<0.025 (ND)	0.3	13				
Toluene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
1,1,1-Trichloroethane	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
1,1,2-Trichloroethane	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Trichloroethene	NA, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.056				
Trichlorofluoromethane (Freon 11)	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND) 0.091				
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	nc, v	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	0.091				
Vinyl chloride	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Xylenes	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Metals	,	1 0.00 ()	1 0.00 ()	0.00 ()	0.00 ()	l .		<u> </u>	
Arsenic	c, nv	2.66	3.47	2.89	2.27	5.73	4.05	3.23	3.92
Barium	nc, nv	140	147	90.1	95.5	135	148	103	108
Cadmium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Chromium (III)	nc, nv	26.2	32.8	6.79	13.5	14	20	11.5	10.2
Lead	NA, nv	54.3	37.9	8.56	6.73	10.2	5.53	7.34	6.24
Mercury	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Silver Semivolatile Organic Constituents	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Polychlorinated biphenyls (Total PCBs)	C, V	0.3	0.51	0.035	<0.02 (ND)				
Polycyclic Aromatic Hydrocarbons	-, •			2.223					
Acenaphthene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.25				
Anthracene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.18				
Benz[a]anthracene	C, V	<0.05 (ND)	0.088	<0.05 (ND)	<0.05 (ND)				
Benzo[a]pyrene (BaP equivalents)	c, nv	0.06	0.16	<0.05 (ND)	<0.05 (ND)				
Benzo[b]fluoranthene	c, nv	0.085	0.18	<0.05 (ND)	<0.05 (ND)				
Benzo[k]fluoranthene	c, nv	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)				
Chrysene Dibenz[a,h]anthracene	c, nv	0.064 <0.05 (ND)	0.12	<0.05 (ND)	0.062 <0.05 (ND)				
Fluoranthene	c, nv nc, nv	<0.05 (ND) 0.058	<0.05 (ND) 0.16	<0.05 (ND) <0.05 (ND)	(ND) 0.083				
Fluorene	nc, riv	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.43				
Indeno[1,2,3-cd]pyrene	c, nv	0.057	0.14	<0.05 (ND)	<0.05 (ND)				
Pyrene	nc, v	0.088	0.23	<0.05 (ND)	0.17				
Total Petroleum Hydrocarbons				. , ,		•			
Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)
Generic Diesel / Heating Oil (DRO) Generic Mineral Insulating Oil (RRO)	nc, v nc, nv	35 x 920	41 x 570	<50 (ND) 1300	1600 11000	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)
Continuity On (MAC)	110, 117	320	JIU	1000	11000	-200 (INF)	7200 (NF)	72JU (INF)	~200 (INF)

Generic Mineral Insulating Oil (RRO) nc, nv

Notes:
mg/Kg = milligram per kilogram or parts per million (ppm).
<# (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

-- = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics. RRO = residual-range organics.

Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable

¹ Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018).

(Y) indicates analyte not detected, but detection limit is above

screening concentration.

j = The result is below method reporting limits. The value

reported is an estimate. x = the pattern of peaks is not indicative of the fuel standard used for quantitation.

ca = the calibration results for the analyte were outside of acceptance criteria, biased high. The value reported is an estimate.

Ic = The presence of the compound indicated is likely due to laboratory contamination.

	ocation ID	I B	06	B07	B08	B09	B10	B11	B12
	Sample ID		B06-9-SWI	B07-9-SWI	B08-9-SWI	B09-7-SWI	B10-9-SWI	B11-5-SWI	B12-9-SWI
Da	te Sampled	2/16/2023	2/16/2023	2/16/2023	2/16/2023	2/16/2023	2/16/2023	2/16/2023	2/16/2023
Depth San		1	9	9	9	7	9	5	9
<u>'</u>	Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location	MA11: Suspecte	d Septic Feature	West Yard	North Yard	North Yard	North Yard	North Yard	MA10: North of Suspected UST
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents									
Benzene Bromodichloromethane	C, V	<0.03 (ND) <0.05 (ND)							
Bromoform	c, v	<0.05 (ND)							
Bromomethane	nc, v	<0.5 (ND)							
Carbon tetrachloride	C, V	<0.05 (ND)							
Chlorobenzene Chlorodibromomethane (dibromochloromethane)	nc, v	<0.05 (ND) <0.05 (ND)							
Chloroethane (ethyl chloride)	nc, v	<0.5 (ND)							
Chloroform	c, v	<0.05 (ND)							
Chloromethane	nc, v	<0.5 (ND)							
1,2-Dichlorobenzene	nc, v	<0.05 (ND)							
1,4-Dichlorobenzene 1,1-Dichloroethane	C, V	<0.05 (ND) <0.05 (ND)							
1,1-Dichloroethene	nc, v	<0.05 (ND)							
cis-1,2-Dichloroethene	nc, v	<0.05 (ND)							
trans-1,2-Dichloroethene	nc, v	<0.05 (ND)							
Dichloromethane EDB (1,2-dibromoethane)	C, V	<0.5 (ND) <0.05 (ND)							
EDC (1,2-dichloroethane)	c, v	<0.05 (ND)							
Ethylbenzene	c, v	<0.05 (ND)							
MTBE (methyl t-butyl ether)	C, V	<0.05 (ND)							
Naphthalene	C, V	<0.05 (ND)							
iso-Propylbenzene (cumene) Tetrachloroethene (PCE)	nc, v c, v	<0.05 (ND) 0.041							
Toluene	nc, v	<0.05 (ND)							
1,1,1-Trichloroethane	nc, v	<0.05 (ND)							
1,1,2-Trichloroethane	C, V	<0.05 (ND)							
Trichloroethene	NA, v	<0.02 (ND)							
Trichlorofluoromethane (Freon 11) 1,2,4-Trimethylbenzene	nc, v	<0.5 (ND) <0.05 (ND)							
1,3,5-Trimethylbenzene	nc, v	<0.05 (ND)							
Vinyl chloride	C, V	<0.05 (ND)							
Xylenes	nc, v	<0.05 (ND)							
Metals		2.22	2.67	4.40	6.02	5.00	F 04	2.65	2.02
Arsenic Barium	c, nv nc, nv	3.23 88.8	2.67 89.6	4.12 95.3	6.92 92.5	5.23 149	5.91 93.2	2.65 158	2.02 74.7
Cadmium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Chromium (III)	nc, nv	11.8	18.8	16.5	18.9	20.4	22.1	19	5.42
Lead	NA, nv	34.4	4.06	4.76	5.93	6.62	5.91	8.62	2.72
Mercury Silver	nc, nv nc, nv	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)
Semivolatile Organic Constituents	110, 111	11 (ND)	TI (ND)	11 (145)	11 (112)	11 (112)	11 (112)	T (ND)	11 (142)
Polychlorinated biphenyls (Total PCBs)	C, V	0.34							
Polycyclic Aromatic Hydrocarbons		40.05 (ND)							
Acenaphthene Anthracene	nc, v	<0.05 (ND) <0.05 (ND)							
Benz[a]anthracene	C, V	<0.05 (ND)							
Benzo[a]pyrene (BaP equivalents)	c, nv	<0.05 (ND)							
Benzo[b]fluoranthene	c, nv	<0.05 (ND)							
Benzo[k]fluoranthene	c, nv	<0.05 (ND)							
Chrysene Dibenz[a,h]anthracene	c, nv c, nv	<0.05 (ND) <0.05 (ND)							
Fluoranthene	nc, nv	<0.05 (ND)							
Fluorene	nc, v	<0.05 (ND)							
Indeno[1,2,3-cd]pyrene	c, nv	<0.05 (ND)							
Pyrene	nc, v	0.061							
Total Petroleum Hydrocarbons Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)
Generic Diesel / Heating Oil (DRO)	nc, v	2000 x	<50 (NP)						
Generic Mineral Insulating Oil (RRO) Notes:	nc, nv	7200	<250 (NP)						

Notes:

mg/Kg = milligram per kilogram or parts per million (ppm).

(ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

-- = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics. RRO = residual-range organics.

Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable

¹ Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018). (Y) indicates analyte not detected, but detection limit is above

screening concentration.

j = The result is below method reporting limits. The value

reported is an estimate. x = the pattern of peaks is not indicative of the fuel standard used for

quantitation.

ca = the calibration results for the analyte were outside of acceptance criteria, biased high. The value reported is an estimate.

Ic = The presence of the compound indicated is likely due to laboratory contamination.

	Location ID		B13		B14	B15	B16	l R	17	B18
	Sample ID	B13-10.5	B13-12	B13-13.5-SWI	B14-12.5-SWI	B15-7.5-SWI	B16-14-SWI	B17-3	B17-14-SWI	B18-13-SWI
		B13-10.5	B13-12	B13-13.3-3W1	B14-12.3-3W1	B13-7.3-3W1	B10-14-3WI	B17-3	B17-14-3WI	B10-13-3WI
Da	ate Sampled	4/21/2023	4/21/2023	4/21/2023	4/21/2023	4/21/2023	4/21/2023	4/21/2023	4/21/2023	4/21/2023
· · · · · · · · · · · · · · · · · · ·	mpled (feet)	10.5	12	13.5	12.5	7.5	14	3	14	13
	Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location		Adjacent to B02		North of B02	East of B02	South of B02 42' East of UST	30' Norti	n of UST	36' west of UST
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents		-0.00 (NID)	10.00 (LID)	0.00 (115)		10 00 (AUD)	-0.00 (NID)	-0.00 (UD)	0.00 (1/2)	-0.00 (AID)
Benzene Bromodichloromethane	C, V	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)	0.056 <0.05 (ND)	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)	<0.03 (ND) <0.05 (ND)
Bromoform	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Bromomethane	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Carbon tetrachloride	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Chlorobenzene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Chlorodibromomethane (dibromochloromethane)	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Chloroethane (ethyl chloride)	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Chloroporthone	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Chloromethane 1.2-Dichlorobenzene	nc, v	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) 0.061	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) 0.056	<0.5 (ND) <0.05 (ND)
1,2-Dichlorobenzene 1.4-Dichlorobenzene	nc, v	<0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND)	<0.05 (ND) <0.05 (ND)
1,1-Dichloroethane	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
1,1-Dichloroethene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
cis-1,2-Dichloroethene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
trans-1,2-Dichloroethene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Dichloromethane	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
EDB (1,2-dibromoethane)	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
EDC (1,2-dichloroethane)	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Ethylbenzene ATRE (methyl t hytholisther)	C, V	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	0.075 <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	2.9 <0.05 (ND)	0.3 <0.05 (ND)
MTBE (methyl t-butyl ether) Naphthalene	C, V	<0.05 (ND)	<0.05 (ND)	0.05 (ND)	<0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) 0.14	1.6	<0.05 (ND)
iso-Propylbenzene (cumene)	nc, v	<0.05 (ND)	<0.05 (ND)	0.22	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.5	0.27
Tetrachloroethene (PCE)	C, V	0.43	<0.025 (ND)	<0.025 (ND)	<0.025 (ND)	0.1	<0.025 (ND)	<0.025 (ND)	<0.025 (ND)	<0.025 (ND)
Toluene	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.089	<0.05 (ND)
1,1,1-Trichloroethane	nc, v	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
1,1,2-Trichloroethane	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Trichloroethene	NA, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)
Trichlorofluoromethane (Freon 11)	nc, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	nc, v	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	2.8 0.56	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	0.32 0.11	7.6 2.5	3.5 0.22
Vinyl chloride	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)
Xylenes	nc, v	<0.15 (ND)	<0.15 (ND)	0.17	<0.15 (ND)	<0.15 (ND)	<0.15 (ND)	<0.15 (ND)	16	1.2
Metals		,	, ,		, ,	, ,	, ,	, ,		
Arsenic	c, nv									
Barium	nc, nv									
Cadmium	nc, nv									
Chromium (III) Lead	nc, nv NA, nv									
Mercury	nc, nv									
Silver	nc, nv									
Semivolatile Organic Constituents										
Polychlorinated biphenyls (Total PCBs)	C, V							0.075	<0.02 (ND)	<0.02 (ND)
Polycyclic Aromatic Hydrocarbons				-0.05 (NID)				0.007	-0.04 (NID)	-0.05 (ND)
Acenaphthene Anthracene	nc, v nc, v			<0.05 (ND) <0.05 (ND)				0.027 <0.01 (ND)	<0.01 (ND) <0.01 (ND)	<0.05 (ND) <0.05 (ND)
Benz[a]anthracene	C, V			<0.05 (ND)				<0.01 (ND)	<0.01 (ND)	<0.05 (ND)
Benzo[a]pyrene (BaP equivalents)	c, nv			<0.05 (ND)				<0.01 (ND)	<0.1 (ND)	<0.05 (ND)
Benzo[b]fluoranthene	c, nv			<0.05 (ND)				0.02	<0.1 (ND)	<0.05 (ND)
Benzo[k]fluoranthene	c, nv			<0.05 (ND)				<0.01 (ND)	<0.1 (ND)	<0.05 (ND)
Chrysene	c, nv			<0.05 (ND)				0.024	0.022	<0.05 (ND)
Dibenz[a,h]anthracene	c, nv			<0.05 (ND)				<0.01 (ND)	<0.1 (ND)	<0.05 (ND)
Fluoranthene	nc, nv			<0.05 (ND)				0.019	0.012	<0.05 (ND)
Fluorene Indeno[1,2,3-cd]pyrene	nc, v			0.087 <0.05 (ND)				0.043 <0.01 (ND)	0.15 <0.1 (ND)	0.21 <0.5 (ND)
Pyrene	c, nv nc, v			<0.05 (ND) <0.05 (ND)				0.01 (ND) 0.043	0.1 (ND) 0.016	<0.5 (ND)
Total Petroleum Hydrocarbons	110, 1		1	0.00 (ND)		1		0.040	0.010	J.0 (ND)
Generic Gasoline (GRO)	nc, v	<5 (ND)	<20 (NP)	300	<20 (NP)	<20 (NP)	<20 (NP)	58	550	310
Generic Diesel / Heating Oil (DRO) Generic Mineral Insulating Oil (RRO)	nc, v nc, nv	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)	1600 5500	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)	<50 (NP) <250 (NP)	750 2300	2000 x 6600	2000 x 7700
Ochene ivimeral modiating Oil (RRO)	HO, HV	~200 (NP)	~230 (NP)	5500	~200 (NP)	~200 (NP)	~∠30 (NP)	2300	0000	7700

Generic Mineral Insulating Oil (RRO) nc, nv

Notes:
mg/Kg = milligram per kilogram or parts per million (ppm).
<# (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

= not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics. RRO = residual-range organics.

Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018).

(Y) indicates analyte not detected, but detection limit is above screening concentration.

j = The result is below method reporting limits. The value

reported is an estimate.

x = the pattern of peaks is not indicative of the fuel standard used for

quantitation.

ca = the calibration results for the analyte were outside of acceptance criteria, biased high. The value reported is an estimate.

Ic = The presence of the compound indicated is likely due to laboratory

1	ocation ID	B19	B20	B21	B22	B23	B24	B25	MA10	MA11
							B24-14-SWI	B25-10-SWI		
	Sample ID	B19-13-SWI	B20-13-SWI	B21-8-SWI	B22-10-SWI	B23-12-SWI	B24-14-SVVI	B25-10-SWI	MA10-Contents	MA11-Contents
Date	e Sampled	4/21/2023	4/21/2023	7/24/2023	7/24/2023	7/24/2023	7/24/2023	7/24/2023	4/21/2023	4/21/2023
Depth Sam	pled (feet)	13	13	8	10	12	14	10	various	varous
S	ampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location	58' south of UST	42' north and 54' west of B17	Western margin of site, west of boring B18, south of boring B22	Western margin of site, west of boring B17, south of boring B20	Northern part of south tax lot, north of boring B03, south of B08	Eastern margin of site, east of boring B03, north of boring B25	Eastern margin of site, east-southeast of boring B15, south of boring B24	MA10: Sandy Fill Inside Tank	MA11: organic soil inside septic walls
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents										
Benzene	C, V			<0.03 (ND)	<0.03 (ND)	<0.03 (ND)	<0.03 (ND)	<0.03 (ND)		
Bromodichloromethane	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Bromoform	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Bromomethane Carbon tetrachloride	nc, v			<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)		
Chlorobenzene	c, v nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Chlorodibromomethane (dibromochloromethane)	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Chloroethane (ethyl chloride)	nc, v			<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)		
Chloroform	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Chloromethane	nc, v			<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)		
1,2-Dichlorobenzene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,4-Dichlorobenzene	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,1-Dichloroethane	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,1-Dichloroethene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
cis-1,2-Dichloroethene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
trans-1,2-Dichloroethene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Dichloromethane EDB (1,2-dibromoethane)	C, V			<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)	<0.5 (ND) <0.05 (ND)		
EDC (1,2-dichloroethane)	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Ethylbenzene	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
MTBE (methyl t-butyl ether)	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Naphthalene	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
iso-Propylbenzene (cumene)	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Tetrachloroethene (PCE)	C, V			<0.025 (ND)	<0.025 (ND)	<0.025 (ND)	<0.025 (ND)	<0.025 (ND)		
Toluene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,1,1-Trichloroethane	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,1,2-Trichloroethane	C, V			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
Trichloroethene	NA, v			<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)		
Trichlorofluoromethane (Freon 11)	nc, v			<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)		
1,2,4-Trimethylbenzene	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)		
1,3,5-Trimethylbenzene Vinyl chloride	nc, v c, v			<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)	<0.05 (ND) <0.05 (ND)		
Xylenes	nc, v			<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND) <0.15 (ND)	<0.05 (ND)		
Metals	110, V			40.15 (ND)	40.15 (ND)	10.15 (ND)	40.13 (ND)	40.13 (ND)		
Arsenic	c, nv								2.07	1.05
Barium	nc, nv								80.3	153
Cadmium	nc, nv								<1 (ND)	<1 (ND)
Chromium (III)	nc, nv								10.8	11.5
Lead	NA, nv								6.25	7.62
Mercury	nc, nv								<1 (ND)	<1 (ND)
Silver	nc, nv								<1 (ND)	<1 (ND)
Semivolatile Organic Constituents	1 1		1	ı		1				
Polycylorinated biphenyls (Total PCBs) Polycyclic Aromatic Hydrocarbons	C, V			-						
Acenaphthene	nc, v									
Anthracene	nc, v									
Benz[a]anthracene	C, V									
Benzo[a]pyrene (BaP equivalents)	c, nv									
Benzo[b]fluoranthene	c, nv									
Benzo[k]fluoranthene	c, nv									
Chrysene	c, nv									
Dibenz[a,h]anthracene	c, nv									
Fluoranthene	nc, nv									
Fluorene	nc, v									
Indeno[1,2,3-cd]pyrene	c, nv									
Pyrene Total Potroloum Hydrocarbons	nc, v									
Total Petroleum Hydrocarbons Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<20 (NP)	<20 (NP)
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (NP)	<50 (NP)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (NP)	<50 (NP)
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	<250 (NP)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (NP)	<250 (NP)

Notes:
mg/Kg = milligram per kilogram or parts per million (ppm).
<# (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

GRO = gasoline-range organics. DRO = diesel-range organics. RRO = residual-range organics.

Shaded concentrations exceed screening level risk-based

concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018).

(Y) indicates analyte not detected, but detection limit is above screening concentration.

j = The result is below method reporting limits. The value

reported is an estimate. x = the pattern of peaks is not indicative of the fuel standard used for quantitation.

ca = the calibration results for the analyte were outside of acceptance criteria, biased high. The value reported is an estimate.

Ic = The presence of the compound indicated is likely due to laboratory

	Location ID	MA17						
	Sample ID	MA17-GS-1]			Background Concentrations		Exceeds ODEQs
D	ate Sampled	4/21/2023	-			(Regional Default)		Screening-Level SLRBCs (Soil) and/or
Depth Sa	ampled (feet)	1	Maximum Soil	Soil Matrix	ODEQs Screening- Level Risk-Based	Delauit)	Clean Fill Screening Levels or Background	Soil Matrix Cleanup Level
'	Sampled By	ENW	Concentration (remaining soil)	Cleanup Level	Concentrations		Concentrations (as	20001
			(remaining soil)		SLRBCs ¹ (Soil)		applicable)	
	Location	MA17: stained soils underlying anomaly				Portland Basin		TRUE OR Y FALSE OR N
Constituent of Interest	Note	mg/Kg (ppm)			mg/Kg (ppm)		I	
Volatile Organic Constituents		0 0 (()	•					
Benzene	C, V		0.056	NE	0.023		0.023	Y
Bromodichloromethane	C, V		<0.05 (ND)	NE	0.002		0.002	(Y)
Bromoform Bromomethane	c, v nc, v		<0.05 (ND) <0.5 (ND)	NE NE	0.046 0.083		0.046 0.083	(Y) (Y)
Carbon tetrachloride	C, V		<0.5 (ND)	NE	0.013		0.013	(Y)
Chlorobenzene	nc, v		<0.05 (ND)	NE	5.8		2.4	N N
Chlorodibromomethane (dibromochloromethane)	C, V		<0.05 (ND)	NE	0.0024		0.0024	(Y)
Chloroethane (ethyl chloride)	nc, v		<0.5 (ND)	NE	310	-	310	N
Chloroform	C, V		<0.05 (ND)	NE	0.0034		0.0034	(Y)
Chloromethane 1,2-Dichlorobenzene	nc, v		<0.5 (ND) 0.13	NE NE	2.2 36		2.2 0.92	N N
1,4-Dichlorobenzene	C, V		0.13 <0.05 (ND)	NE NE	0.057		0.92	N N
1,1-Dichloroethane	c, v		<0.05 (ND)	NE	0.044		0.044	(Y)
1,1-Dichloroethene	nc, v		<0.05 (ND)	NE	6.7		6.7	N
cis-1,2-Dichloroethene	nc, v		<0.05 (ND)	NE	0.63	-	0.63	N
trans-1,2-Dichloroethene	nc, v		<0.05 (ND)	NE NE	7.0 0.14		7 0.14	N LC
Dichloromethane EDB (1,2-dibromoethane)	C, V		11 lc	NE NE	0.14		0.14	(Y)
EDC (1,2-dichloroethane)	C, V		<0.05 (ND) <0.05 (ND)	NE	0.0028		0.0028	(Y)
Ethylbenzene	c, v		2.9	NE	0.22		0.22	Y
MTBE (methyl t-butyl ether)	C, V		<0.05 (ND)	NE	0.11		0.11	N
Naphthalene	C, V		1.6	NE	0.077		0.077	Y
iso-Propylbenzene (cumene)	nc, v		0.5	NE	96		96	N
Tetrachloroethene (PCE) Toluene	c, v nc, v		13 0.089	NE NE	0.46 83		0.18 23	Y N
1,1,1-Trichloroethane	nc, v		<0.05 (ND)	NE	190		190	N
1,1,2-Trichloroethane	C, V		<0.05 (ND)	NE	0.0063		0.0063	(Y)
Trichloroethene	NA, v		0.056	NE	0.013		0.013	Y
Trichlorofluoromethane (Freon 11)	nc, v		<0.5 (ND)	NE	61		52	N
1,2,4-Trimethylbenzene	nc, v		7.6	NE NE	10 11		10 11	N N
1,3,5-Trimethylbenzene Vinyl chloride	nc, v		2.5 <0.05 (ND)	NE NE	0.00057		0.00057	(Y)
Xylenes	nc, v		16	NE	23		1.4	N N
Metals							•	
Arsenic	c, nv	4.39	6.92	NE	0.43	8.8	8.8	BKG
Barium	nc, nv	143	158	NE	15000	790	790	N
Cadmium Chromium (III)	nc, nv	<1 (ND)	<1 (ND)	NE NE	78	0.63 76	0.63 76	N N
Chromium (III) Lead	nc, nv NA, nv	10.5 14.7	32.8 54.3	NE NE	120000 30	76 28	76 28	N Y
Mercury	nc, nv	<1 (ND)	<1 (ND)	NE	23	0.23	0.23	N
Silver	nc, nv	<1 (ND)	<1 (ND)	NE	390	0.82	0.82	N
Semivolatile Organic Constituents								
Polychlorinated biphenyls (Total PCBs)	C, V		0.51	NE	0.23		0.23	Y
Polycyclic Aromatic Hydrocarbons Acenaphthene	nc, v		0.25	NE	770		0.25	N
Anthracene	nc, v		0.25	NE	8200		6.8	N
Benz[a]anthracene	c, v		0.1	NE	1.1		0.73	N
Benzo[a]pyrene (BaP equivalents)	c, nv		0.16	NE	0.11		0.11	Y
Benzo[b]fluoranthene	c, nv		0.18	NE	1.1		1.1	N
Benzo[k]fluoranthene	c, nv		<0.1 (ND)	NE NE	11		11	N N
Chrysene Dibenz[a,h]anthracene	c, nv		0.12	NE NE	110 0.11		3.1 0.11	N N
Fluoranthene	nc, nv		<0.1 (ND) 0.16	NE NE	2400		10	N N
Fluorene	nc, v		0.16	NE	770		3.7	N
Indeno[1,2,3-cd]pyrene	c, nv		0.5	NE	1.1		1.1	N
Pyrene	nc, v		0.5	NE	1800		10	N
Total Petroleum Hydrocarbons		<00 (NID)	550	00	24		500	V
Generic Gasoline (GRO) Generic Diesel / Heating Oil (DRO)	nc, v nc, v	<20 (NP) <50 (NP)	2000 x	80	31		520 90	Y
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	11000	500	1100		140,000	Y

mg/Kg = milligram per kilogram or parts per million (ppm).

4 (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
NP = not present at or above the laboratory method reporting limit shown (HCID analysis).

— = not analyzed or not applicable. c = carcinogenic

nc = noncarcinogenic v = volatile nv = nonvolatile

GRO = gasoline-range organics. DRO = diesel-range organics. RRO = residual-range organics.

Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable

¹ Lowest Risk-Based Concentration for soil (screening level assumes

residential use, from ODEQ RBCs dated May 2018). (Y) indicates analyte not detected, but detection limit is above

screening concentration.
j = The result is below method reporting limits. The value

reported is an estimate.

x = the pattern of peaks is not indicative of the fuel standard used for

quantitation.

ca = the calibration results for the analyte were outside of acceptance criteria, biased high. The value reported is an estimate.

Ic = The presence of the compound indicated is likely due to laboratory

	Location ID	B04	B05	B06	B07	B08	B09	B10	B11	B12
		B04-GW-12.5	B05-GW-12.5	B06-GW-15	B07-GW-15	B08-GW-13	B09-GW-14.5	B10-GW-14.5	B11-GW-15	B12-GW-230216
	Sample ID Date Sampled		2/16/23	2/16/23	2/16/23	2/16/23	2/16/23	2/16/23	2/16/23	2/16/23
	Sampled (feet)	12.5	12.5	15	15	13	14.5	14.5	15	15
Берш	Sampled (leet)	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location	South of Suspected UST	MA13: Former ASTs South of Warehouse	MA11: Suspected Septic Feature	West Yard	North Yard	North Yard	North Yard	North Yard	MA10: North of Suspected UST
Constituent of Interest	Note	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)
Volatile Organic Constituents	T	40.05 (ND)	40.25 (ND)	40.05 (NID)	*0.25 (ND)	40.25 (ND)	40.25 (ND)	40.05 (ND)	40.25 (NID)	40.25 (ND)
Benzene Bromodichloromethane	C, V	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)	<0.35 (ND) <0.5 (ND)
Bromoform	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)
Bromomethane	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)
Carbon tetrachloride	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Chlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Chlorodibromomethane (dibromochloromethane)	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Chloroethane (ethyl chloride)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Chloroform	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.1	1.0	1.0	<1 (ND)
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)
1,2-Dichlorobenzene 1,4-Dichlorobenzene	nc, v	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)
1,1-Dichloroethane	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,1-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
cis-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
trans-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Dichloromethane	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
EDC (1,2-dichloroethane)	C, V	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)
Ethylbenzene	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
MTBE (methyl t-butyl ether)	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Naphthalene	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.1
iso-Propylbenzene (cumene) Tetrachloroethene (PCE)	nc, v	<1 (ND) 2.3	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) 1.2	<1 (ND) <1 (ND)	<1 (ND)
Toluene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,1,1-Trichloroethane	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,1,2-Trichloroethane	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Trichloroethene	NA, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)
Trichlorofluoromethane (Freon 11)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,2,4-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.3
1,3,5-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Vinyl chloride	C, V	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	>SLRBC	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	<0.05 (ND)	0.021
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	2.1
Metals Arsenic	c, nv	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<1 (ND)	<5 (ND)
Barium	nc, nv	28.0	10.9	9.13	60.6	49.2	1870	20.3	13.9	21.4
Cadmium	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.44	<1 (ND)	<1 (ND)	<1 (ND)
Chromium (III)	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	32.2	<1 (ND)	<1 (ND)	<1 (ND)
Lead	NA, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	8.81	<1 (ND)	<1 (ND)	<1 (ND)
Mercury	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<5 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Silver	nc, nv	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<5 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Semivolatile Organic Constituents		-0.4.0:=:		.0.1.07=3	.0.1.0:=:	.0.4.0:=:	.0.4.0:=:		.0.4 (1)=1	1
Polychlorinated biphenyls (Total PCBs)	C, V	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)	<0.1 (ND)
Polycyclic Aromatic Hydrocarbons	no ::			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (NID)	0.054
Acenaphthene Anthracene	nc, v			<0.04 (ND) <0.04 (ND)	<0.04 (ND) <0.04 (ND)	<0.04 (ND) <0.04 (ND)	<0.04 (ND) <0.04 (ND)	<0.04 (ND) <0.04 (ND)	<0.04 (ND) <0.04 (ND)	0.051 <0.04 (ND)
Benz[a]anthracene	C, V			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Benzo[a]pyrene (BaP equivalents)	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Benzo[b]fluoranthene	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Benzo[k]fluoranthene	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Chrysene	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Dibenz[a,h]anthracene	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Fluoranthene	nc, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Fluorene	nc, v			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	0.32
Indeno[1,2,3-cd]pyrene	c, nv			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Pyrene Total Potroloum Hydrocarbons	nc, v			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)	<0.04 (ND)
Total Petroleum Hydrocarbons Generic Gasoline (GRO)	nc, v	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	120
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND)	<50 (ND)	130 x *	65 x *	76 x *	<53 (ND) *	83 x *	240 x *	1100 x
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)	<250 (ND)	<250 (ND) *	<250 (ND) *	<250 (ND) *	<250 (ND) *	<250 (ND) *	<250 (ND) *	6800
Notes:	, 114	200 (140)	200 (ND)	200 (110)	200 (110)	200 (110)	200 (110)	200 (140)	200 (140)	0000

Generic Mineral Insulating Oil (RRO) nc, n

Notes:

ug/L = micrograms per Liter or parts per billion (ppb).

<# (ND) = not detected at or above the laboratory method reporting limit

NE = not established.

¹ Lowest Risk-Based Concentration for ground water (screening level assumes residential use, from ODEQ RBCs dated May 2018).

— = not analyzed or not applicable

c = carcinogenic

nc = noncarcinogenic v = volatile

nv = nonvolatile

GRO = gasoline-range organics. DRO = diesel-range organics.

RRO = residual-range organics.

BKG = constituent exceeded its SLRBC; however, was not detected above default backgound concentrations in soil

Bolded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for ground water (screening level).

(Y) indicates analyte not detected, but detection limit is above screening concentration.

 \boldsymbol{x} = the pattern of peaks is not indicative of the fuel standard used for quantitation.

* = DRO result after extracts passed through silica gel column prior to analysis

	Location ID	B13	B14	B15	B16	B17	B18	B19	B20	B21
	Sample ID	B13-GW-14.5	B14-GW-15	B15-GW-14	B16-GW-13.5	B17-GW-14	B18-GW-15	B19-GW-15	B20-GW-15	B21-GW-19
	Date Sampled	4/21/23	4/21/23	4/21/23	4/21/23	4/21/23	4/21/23	4/21/23	4/21/23	7/24/23
De	pth Sampled (feet)	14.5	15	14	13.5	14	15	15	15	19
	Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
	Location	Adjacent to B02	North of B02	East of B02	South of B02; 42' East of UST	30' North of UST	36' west of UST	58' south of UST	42' north and 54' west of B17	Western margin of site, west of boring B18, south of boring B22
Constituent of Interest	Note	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)
Volatile Organic Constituents Benzene		<0.35 (ND)	1.2	<0.35 (ND)	<0.25 (ND)	2.7 j	<0.35 (ND)			<0.35 (ND)
Bromodichloromethane	C, V	<0.55 (ND)	<0.5 (ND)	<0.5 (ND)	<0.35 (ND) <0.5 (ND)	<5 (ND)	<0.55 (ND)			<0.5 (ND)
Bromoform	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<50 (ND)	<5 (ND)			<5 (ND)
Bromomethane	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<50 (ND)	<5 (ND)			<5 k
Carbon tetrachloride	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	<0.5 (ND)			<0.5 (ND)
Chlorobenzene	nc, v	<1 (ND)	1.1	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
Chlorodibromomethane (dibromochloromethane)	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	<0.5 (ND)			<0.5 (ND)
Chloroethane (ethyl chloride)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
Chloroform	C, V	<1 (ND)	<1 (ND)	1.1	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<100 (ND)	<10 (ND)			<10 (ND)
1,2-Dichlorobenzene	nc, v	2.5	3.5	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
1,4-Dichlorobenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
1,1-Dichloroethane 1,1-Dichloroethene	c, v nc, v	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<1 (ND) <1 (ND)	<10 (ND) <10 (ND)	<1 (ND) <1 (ND)			<1 (ND) <1 (ND)
cis-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND) 9	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
trans-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
Dichloromethane	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<50 (ND)	<5 (ND)			<5 (ND)
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<0.01 (ND)
EDC (1,2-dichloroethane)	C, V	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<2 (ND)	<0.2 (ND)			<0.2 (ND)
Ethylbenzene	C, V	2.7	11	<1 (ND)	<1 (ND)	130	5.3			<1 (ND)
MTBE (methyl t-butyl ether)	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
Naphthalene	C, V	3.2	7.6	<1 (ND)	<1 (ND)	33	11			<0.2 (ND)
iso-Propylbenzene (cumene)	nc, v	3.1	3.2	<1 (ND)	<1 (ND)	<10 (ND)	3			<1 (ND)
Tetrachloroethene (PCE)	C, V	62	<1 (ND)	86	9.4	1.8 j	<1 (ND)			<1 (ND)
Toluene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	13	<1 (ND)			<1 (ND)
1,1,1-Trichloroethane	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	<1 (ND)			<1 (ND)
1,1,2-Trichloroethane	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	<0.5 (ND)			<0.5 (ND)
Trichloroethene Trichlorofluoromethane (Freon 11)	NA, v	2.9 <1 (ND)	<0.5 (ND) <1 (ND)	<1 (ND)	<0.5 (ND) <1 (ND)	<5 (ND) <10 (ND)	<0.5 (ND) <1 (ND)			<0.5 (ND) <1 (ND)
1,2,4-Trimethylbenzene	nc, v	37	4.4	<1 (ND)	<1 (ND)	120	33			<1 (ND)
1,3,5-Trimethylbenzene	nc, v	7.6	<1 (ND)	<1 (ND)	<1 (ND)	35	1.9			<1 (ND)
Vinyl chloride	c, v	0.21	0.24	<0.02 (ND)	<0.02 (ND)	<0.2 (ND)	<0.02 (ND)			<0.02 (ND)
Xylenes	nc, v	8.2	17	<3 (ND)	<3 (ND)	610	21			<3 (ND)
Metals										
Arsenic	c, nv									
Barium	nc, nv									
Cadmium	nc, nv									
Chromium (III)	nc, nv									
Lead	NA, nv									
Mercury	nc, nv									
Silver Semivolatile Organic Constituents	nc, nv									
Polychlorinated biphenyls (Total PCBs)	C, V	<0.1 (ND)	<0.1 (ND)			<0.13 (ND)	<0.1 (ND)	<0.1 (ND)		
Polycyclic Aromatic Hydrocarbons	0, 1	-0.1 (ND)	10.1 (112)			-0.10 (ND)	·0.1 (ND)	·0.1 (ND)		
Acenaphthene	nc, v	0.21	<0.04 (ND)			0.27	0.19	<0.04 (ND)		<0.02 (ND)
Anthracene	nc, v	<0.04 (ND)	<0.04 (ND)			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Benz[a]anthracene	c, v	<0.04 (ND)	<0.04 (ND)			0.082	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Benzo[a]pyrene (BaP equivalents)	c, nv	<0.04 (ND)	<0.04 (ND)			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Benzo[b]fluoranthene	c, nv	<0.04 (ND)	<0.04 (ND)			0.055	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Benzo[k]fluoranthene	c, nv	<0.04 (ND)	<0.04 (ND)			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Chrysene	c, nv	0.047	<0.04 (ND)			0.25	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Dibenz[a,h]anthracene	c, nv	<0.04 (ND)	<0.04 (ND)			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Fluoranthene	nc, nv	0.07	0.052			0.17	<0.04 (ND)	<0.04 (ND)		0.036
Fluorene	nc, v	1.3	1			1.8	0.9	<0.04 (ND)		<0.02 (ND)
Indeno[1,2,3-cd]pyrene	c, nv	<0.04 (ND)	<0.04 (ND)			<0.04 (ND)	<0.04 (ND)	<0.04 (ND)		<0.02 (ND)
Pyrene Total Petroleum Hydrocarbons	nc, v	0.16	0.12			0.54	0.053	<0.04 (ND)		0.047
Generic Gasoline (GRO)	nc, v	1100	630	<100 (ND)	<100 (ND)	2700	770	<100 (ND)	<100 (ND)	<100 (ND)
Generic Diesel / Heating Oil (DRO)	nc, v	3400 x *	14000 x *	<50 (ND) *	<50 (ND) *	12000 x *	8900 x *	200 x *	<50 (ND) *	<50 (ND)
Generic Mineral Insulating Oil (RRO)	nc, nv	13000 *	55000 *	<250 (ND) *	<250 (ND) *	44000 *	32000 *	<250 (ND) *	<250 (ND) *	<250 (ND)
Notes:	.10, 114	.0000	50000	200 (14D)	200 (110)	.4000	32000	200 (140)	200 (140)	200 (140)

Generic Mineral Insulating Oil (RRO) nc, n

Notes:

ug/L = micrograms per Liter or parts per billion (ppb).

<# (ND) = not detected at or above the laboratory method reporting limit

NE = not established.

¹ Lowest Risk-Based Concentration for ground water (screening level assumes residential use, from ODEQ RBCs dated May 2018).

— = not analyzed or not applicable

c = carcinogenic

nc = noncarcinogenic v = volatile

nv = nonvolatile

GRO = gasoline-range organics. DRO = diesel-range organics.

RRO = residual-range organics.

BKG = constituent exceeded its SLRBC; however, was not detected above

default backgound concentrations in soil **Bolded** concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for ground water (screening level).

(Y) indicates analyte not detected, but detection limit is above screening

concentration.

 \boldsymbol{x} = the pattern of peaks is not indicative of the fuel standard used for quantitation.

* = DRO result after extracts passed through silica gel column prior to analysis

	Location ID	B22	B23	B24	B25				
	Sample ID	B22-GW-20	B23-GW-19	B24-GW-20	B25-GW-20		ODEQs		COPC?
	Date Sampled	7/24/23	7/24/23	7/24/23	7/24/23	Maximum Ground Water	Screening-level	Background	
Dep	oth Sampled (feet)	20	19	20	20	Concentration	Risk-Based Concentrations	Concentrations (metals)	
	Sampled By Location	ENW Western margin of site, west of boring B17, south of boring B20	Northern part of south tax lot, north of boring B03, south of B08	ENW Eastern margin of site, east of boring B03, north of boring B25	ENW Eastern margin of site, east-southeast of boring B15, south of boring B24		(SLRBCs) ¹	(metals)	TRUE OR Y FALSE OR N
Constituent of Interest	Note	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)	μg/L (ppb)		μg/L (ppb)		
Volatile Organic Constituents									
Benzene	C, V	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	2.7 j	0.46	NE	Y
Bromodichloromethane	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	0.13	NE	(Y)
Bromoform	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<50 (ND)	3.3	NE	(Y)
Bromomethane	nc, v	<5 k	<5 k	<5 k	<5 k	<50 (ND)	7.5	NE	(Y)
Carbon tetrachloride	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	0.46	NE	(Y)
Chlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.1	77	NE	N
Chlorodibromomethane (dibromochloromethane)	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	0.17	NE	(Y)
Chloroethane (ethyl chloride)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	21000	NE	N
Chloroform	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.1	0.22	NE	Y
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<100 (ND)	190	NE	N
1,2-Dichlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	3.5	300	NE	Ν
1,4-Dichlorobenzene	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	0.48	NE	(Y)
1,1-Dichloroethane	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	2.8	NE	(Y)
1,1-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	280	NE	N
cis-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	9	36	NE	N
trans-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	360	NE	N
Dichloromethane	C, V	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<50 (ND)	11	NE	(Y)
EDB (1,2-dibromoethane)	C, V	<0.01 (ND)	<0.01 (ND)	<0.01 (ND)	<0.01 (ND)	<10 (ND)	0.0075	NE	(Y)
EDC (1,2-dichloroethane)	C, V	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<2 (ND)	0.17	NE	(Y)
Ethylbenzene	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	130	1.5	NE	Y
MTBE (methyl t-butyl ether)	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	14	NE	N
Naphthalene	C, V	<0.2 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	33	0.17	NE	Y
iso-Propylbenzene (cumene)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	3.2	440	NE	N
Tetrachloroethene (PCE)	C, V	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	86	12	NE	Υ
Toluene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	13	1100	NE	N
1,1,1-Trichloroethane	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	8000	NE	N
1,1,2-Trichloroethane	C, V	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<5 (ND)	0.28	NE	(Y)
Trichloroethene	NA, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	9	0.49	NE	Υ
Trichlorofluoromethane (Freon 11)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)	1100	NE	N
1,2,4-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	120	54	NE	Y
1,3,5-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	35	59	NE	N
Vinyl chloride	C, V	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.24	0.027	NE	Y
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	610	190	NE	Υ
Metals		1	1	1	T	T			
Arsenic	c, nv					<5 (ND)	0.052	2	(Y)
Barium	nc, nv					1870	4000	NE	N
Cadmium	nc, nv					1.44	20	1	N
Chromium (III)	nc, nv					32.2	30000	1	N
Lead	NA, nv					8.81	15	13.3	N
Mercury	nc, nv					<5 (ND)	6	0.1	N
Silver	nc, nv					<5 (ND)	100	1	N
Semivolatile Organic Constituents	ı	1	1	1	ı				W.C.
Polychlorinated biphenyls (Total PCBs)	C, V					<0.13 (ND)	0.006	NE	(Y)
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	nc, v	<0.02 (ND)				0.27	510	NE	N
Anthracene	nc, v	<0.02 (ND)				<0.04 (ND)	>S	NE	N
Benz[a]anthracene	c, v	<0.02 (ND)				0.082	0.03	NE	Y
Benzo[a]pyrene (BaP equivalents)	c, nv	<0.4 (ND)				<0.4 (ND)	0.025	NE	(Y)
Benzo[b]fluoranthene	c, nv	<0.4 (ND)				0.055	0.25	NE	N
Benzo[k]fluoranthene	c, nv	<0.4 (ND)				<0.4 (ND)	2.5	NE	N
Chrysene	c, nv	<0.02 (ND)				0.25	>S	NE	N
Dibenz[a,h]anthracene	c, nv	<0.4 (ND)				<0.4 (ND)	0.025	NE	(Y)
Fluoranthene	nc, nv	<0.02 (ND)				0.17	800	NE	N
Fluorene	nc, v	<0.02 (ND)				1.8	280	NE	N
Indeno[1,2,3-cd]pyrene	c, nv	<0.4 (ND)				<0.4 (ND)	0.25	NE	(Y)
Pyrene	nc, v	<0.02 (ND)				0.54	110	NE	N
Total Petroleum Hydrocarbons				_	1				
Generic Gasoline (GRO)	nc, v	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	2700	110	NE	Y
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	14000 x *	100	NE	Υ
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	55000 *	300	NE	Y

Notes:

ug/L = micrograms per Liter or parts per billion (ppb).

<# (ND) = not detected at or above the laboratory method reporting limit</p> shown.

NE = not established.

¹ Lowest Risk-Based Concentration for ground water (screening level assumes residential use, from ODEQ RBCs dated May 2018).

— = not analyzed or not applicable

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nc = noncarcinogenic v = volatile

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GRO = gasoline-range organics. DRO = diesel-range organics.

RRO = residual-range organics.

BKG = constituent exceeded its SLRBC; however, was not detected above default backgound concentrations in soil

Bolded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for ground water (screening level).

(Y) indicates analyte not detected, but detection limit is above screening concentration.

 \boldsymbol{x} = the pattern of peaks is not indicative of the fuel standard used for quantitation.

* = DRO result after extracts passed through silica gel column prior to analysis

Contaminated Medium															SOIL /Kg (pp	m)														
Exposure Pathway					Soil In	gestion, De	rmal Co	ontact, and Inha	alation				Volat	tilization to (Outdoo	or Air		Va	por Intr	usion into Build	dings				Leach	hing to Gro	ound W	ater		Maximum Detected
							RBC _s	SS						RBC _s	0					RBC _{si}						RBC _s	w			Concentration
Receptor Scenario		Reside	ential	Urban Resid	dential	Occupati	onal	Construction V	Vorker	Excavation	Worker	Residentia	al	Urban Resid	lential	Occupation	onal	Residential		Urban Residentia	al	Occupationa	al	Residentia	d T	Urban Resid	dential	Occupation	onal	1
Direct or Indirect Pathway (see notes)		DC		DC		DC		DC		DC	:	IVS		IVS		IVS		IVS		IVS		IVS		IS		IS		IS		<u>'</u>
Contaminant of Concern	Note		Note		Note		Note		Note		Note		Note		Note		Note		Note	No	te		Note		Note		Note		Note	mg/Kg (ppm)
Volatile Organic Constituents	_																													
Benzene	C, V	8.2		24		37		380		11000	>Csat	11		27		50		0.16		0.38		2.1		0.023		0.1		0.1		0.056
Ethylbenzene	C, V	34		110		150		1700	>Csat	49000	>Csat	36		85		160		1.3		3		17		0.22		0.94		0.9		2.9
Naphthalene	C, V	5.3		25		23		580	>Csat	16000	>Csat	6.4		15		83		6.4		15		83		0.077		0.37		0.34		1.6
Tetrachloroethene (PCE)	C, V	220	>Csat	540	>Csat	1000	>Csat	1800	>Csat	50000	>Csat	340	>Csat	810	>Csat	1500	>Csat	2.8		6.6		36		0.46		1.9		1.9		13
Trichloroethene	NA, v	6.7		17		51		130		3700	>Csat	15		33		96		0.12		0.26		2.3		0.013		0.053	4	0.087	<u> </u>	0.056
Metals																														
Lead	NA, nv	400	L	400	L	800	L	800	L	800	L	-	NV	-	NV	-	NV	-	NV	- N'	V	-	NV	30	L	30	L	30	L	54.3
Semivolatile Organic Constituents																														
Polychlorinated biphenyls (Total PCBs)	C, V	0.23		0.33		0.59		4.9	>Csat	140	>Csat	130	>Csat	300	>Csat	1600	>Csat	130	>Csat	300 >Cs	sat	1600 >	>Csat	0.24		1.1		1.1	'	0.51
Polycyclic Aromatic Hydrocarbons																														
Benzo[a]pyrene (BaP equivalents)	c, nv	0.11		0.25		2.1		17		490	>Csat	-	NV	-	NV	-	NV	-	NV	- N'	V	-	NV	4.4		28		82	>Csat	0.16
Total Petroleum Hydrocarbons																														
Generic Gasoline (GRO)	nc, v	1200		2500		20000		9700		-	>Max	5900		5900		69000		94		94		- >	>Max	31		31		130	4'	550
Generic Diesel / Heating Oil (DRO)	nc, v	1100		2200		14000		4600		-	>Max	- :	>Max	-	>Max	-	>Max	•	>Max	- >M	ax	- >	>Max	9500		9500		-	>Max	2000
Generic Mineral Insulating Oil (RRO)	nc, nv	2800		5700		36000		11000		-	>Max	- :	>Max	-	>Max	-	>Max	-	>Max	- >M	ax	- >	>Max	- :	>Max	-	>Max	-	>Max	11000

— = not analyzed or not applicable.

< = not detected above method reporting limit shown.

NE = not established.

mg/Kg = milligrams per Kilogram or parts per million

(ppm). c = carcinogenic

nc = noncarcinogenic

v = volatile nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

>Csat = This soil RBC exceeds the limit of three-phase equilibrium partitioning.
>Max = The constituent RBC for this pathway is greater than 100,000 mg/kg. The Department believes it is highly unlikely that such concentrations will ever be encountered.

Contaminated Medium										GROU!	ND WA											
Exposure Pathway		Ingesti	on & Ir	nhalation froi	m Tapı	water			Volat	ilization to O)utdooi	r Air		Va	por	Intrusion int	o Buil	dings		GW in Excav	ation	Maximum Detected
				RBC_{tw}						RBC_{wo}						RBC_{wi}				RBC_{we}		Concentration
Receptor Scenario		Residential		Urban Resid	lential	Occupatio	nal	Residenti	al	Urban Resid	lential	Occupation	onal	Residential		Urban Resid	ential	Occupatio	onal	Construction & Exc Worker	cavation	
Direct or Indirect Pathway (see notes)		DS		DS		DS		IVW		IVW		IVW		IVW		IVW		IVW		DS		I
Contaminant of Concern	Note		Note		Note		Note		Note		Note		Note	N	lote		Note		Note		Note	μg/L (ppb)
Volatile Organic Constituents																						
Benzene	C, V	0.46		2		2.1		3100		7400		14000		210		510		2800		1800		2.7
Chloroform	C, V	0.22		1		0.98		1400		3400		6300		120		290		1600		720		1.1
Ethylbenzene	C, V	1.5		6.7		6.4		9900		23000		43000		620		1500		8200		4500		130
Naphthalene	C, V	0.17		0.78		0.72		3600		8500		16000		840		2000		11000		500		33
Tetrachloroethene (PCE)	C, V	12		49		48		64000		150000		280000	>S	3700		8700		48000		5600		86
Trichloroethene	NA, v	0.49		2		3.3		3300		6900		20000		200		430		3700		430		9
1,2,4-Trimethylbenzene	nc, v	54		230		250		720000	>S	720000	>S	3000000	>S	50000		50000		620000	>S	6300		120
Vinyl chloride	C, V	0.027		0.066		0.49		350		430		5900		17		21		880		960		0.24
Xylenes	nc, v	190		710		830		1200000	>S	1200000	>S	5100000	>S	86000		86000		1100000	>S	23000		610
Semivolatile Organic Constituents				•								•						•				
Polycyclic Aromatic Hydrocarbons																						
Benz[a]anthracene	C, V	0.03		0.11		0.38		-	NV	-	NV	-	NV	- 1	NV	-	NV	-	NV	280		0.082
Benzo[a]pyrene (BaP equivalents)	c, nv	0.025		0.08		0.47		-	NV	-	NV	-	NV	- 1	NV	-	NV	-	NV	-	>S	0.4
Benzo[b]fluoranthene	c, nv	0.25		0.8		4.7		-	NV	-	NV	-	NV	- 1	NV	-	NV	-	NV	-	>S	0.055
Benzo[k]fluoranthene	c, nv	2.5		8	>S	47	>S	-	NV	-	NV	-	NV	- 1	NV	-	NV	-	NV	-	>S	0.4
Chrysene	c, nv	25		80		470		-	NV	-	NV	-	NV	- N	NV	-	NV	-	NV	-	>S	0.25
Dibenz[a,h]anthracene	c, nv	0.025		0.08		0.47		_	NV	-	NV	-	NV	- N	NV	-	NV	-	NV	-	>S	0.4
Fluoranthene	nc, nv	800	>S	2900	>S	6700	>S	-	NV	-	NV	-	NV	- 1	NV	-	NV	-	NV	-	>S	0.17
Fluorene	nc, v	280		1400		1300		1.7936E+20	>S	1.7936E+20	>S	8.268E+20	>S	6.5617E+19 >	>S	6.5617E+19	>S	8.268E+20	>S	26000	>S	1.8
Indeno[1,2,3-cd]pyrene	c, nv	0.25	>S	0.8		4.7		_	NV	-	NV	-	NV	- N	NV	-	NV	-	NV	-	>S	0.4
Pyrene	nc, v	110	>S	620	>S	480	>S	1.9534E+21	>S	1.9534E+21	>S	1.017E+22	>S	8.0725E+20 >	>S	8.0725E+20	>S	1.017E+22	>S	8600	>S	1300
Styrene	nc, v	1200		4600		5700		16485573.5	>S	16485573.5	>S	69239409	>S	1500000 >	>S	1500000	>S	19226099	>S	170000		1
2,3,7,8-TCDD (dioxin) equivalents	C, V	9.1187E-08		4.1615E-07		4.2092E-07		0.022		0.052		0.11		0.0083		0.02		0.11		0.00045		0
Total Petroleum Hydrocarbons											•		•									
Generic Gasoline (GRO)	nc, v	110		110		450		-	> S	-	>S	-	>S	22000		22000		_	>S	14000		2700
Generic Diesel / Heating Oil (DRO)	nc, v	100		100		430		-	> S	-	>S	-	>S		>S	-	> S	-	>S	-	>S	14000
Generic Mineral Insulating Oil (RRO)	nc, nv	300		300		1300		-	>S	-	>S	-	>S	- >	>S	-	>S	-	>S	-	>S	55000

Notes:

— = not analyzed or not applicable.

ug/L = micrograms per Liter or parts per billion (ppb).

c = carcinogenic

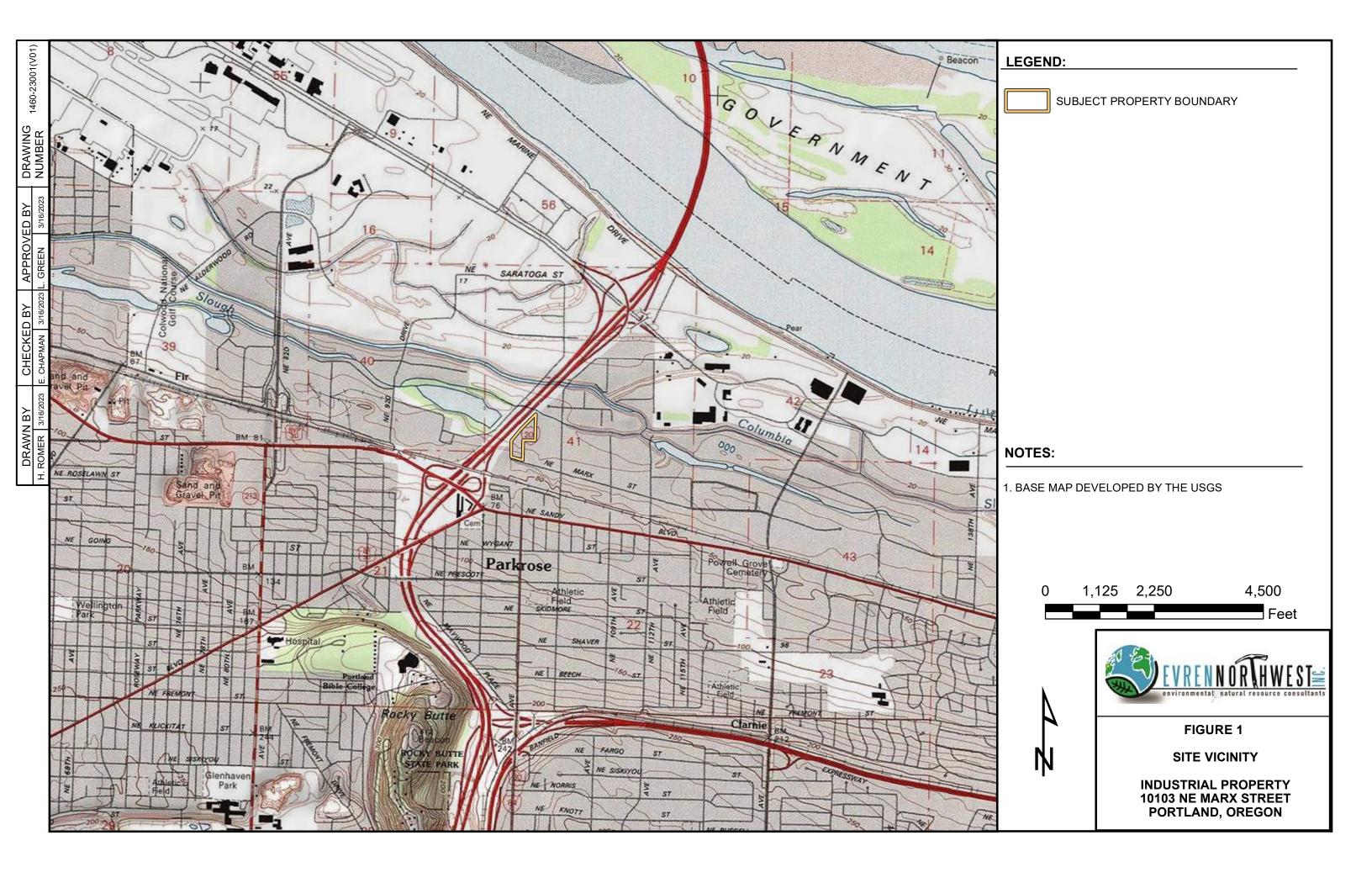
nc = noncarcinogenic

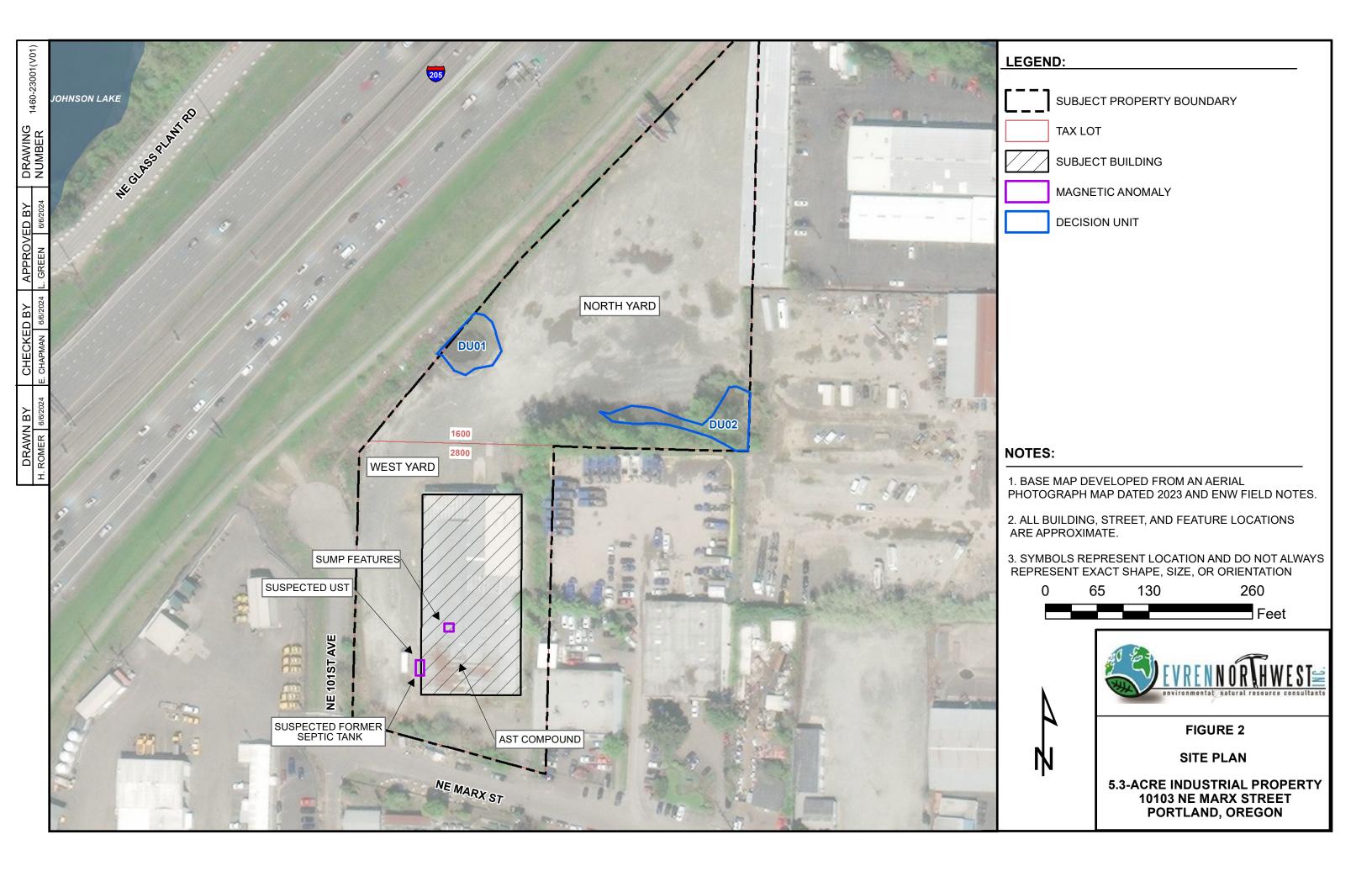
v = volatile

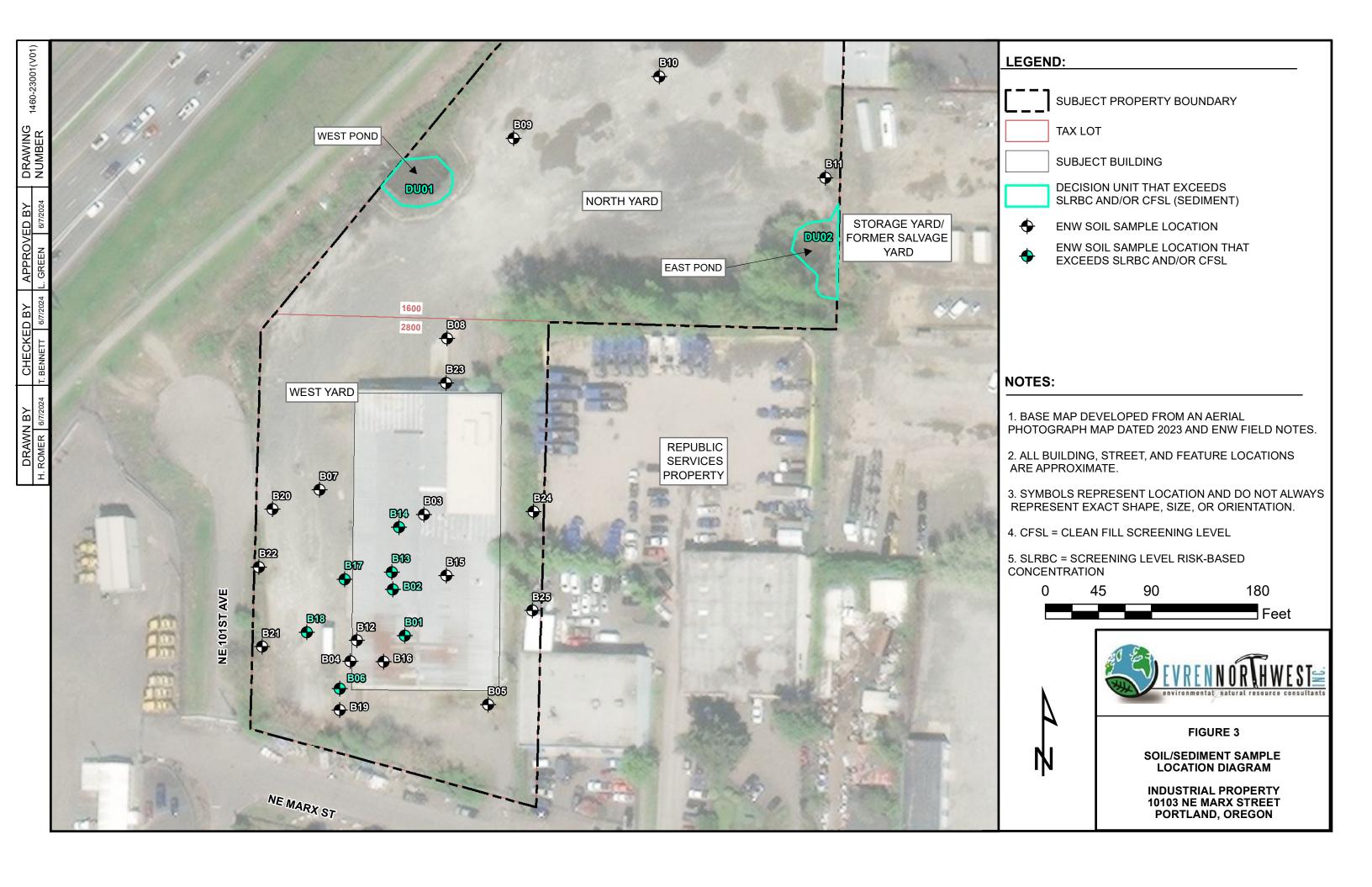
nv = nonvolatile

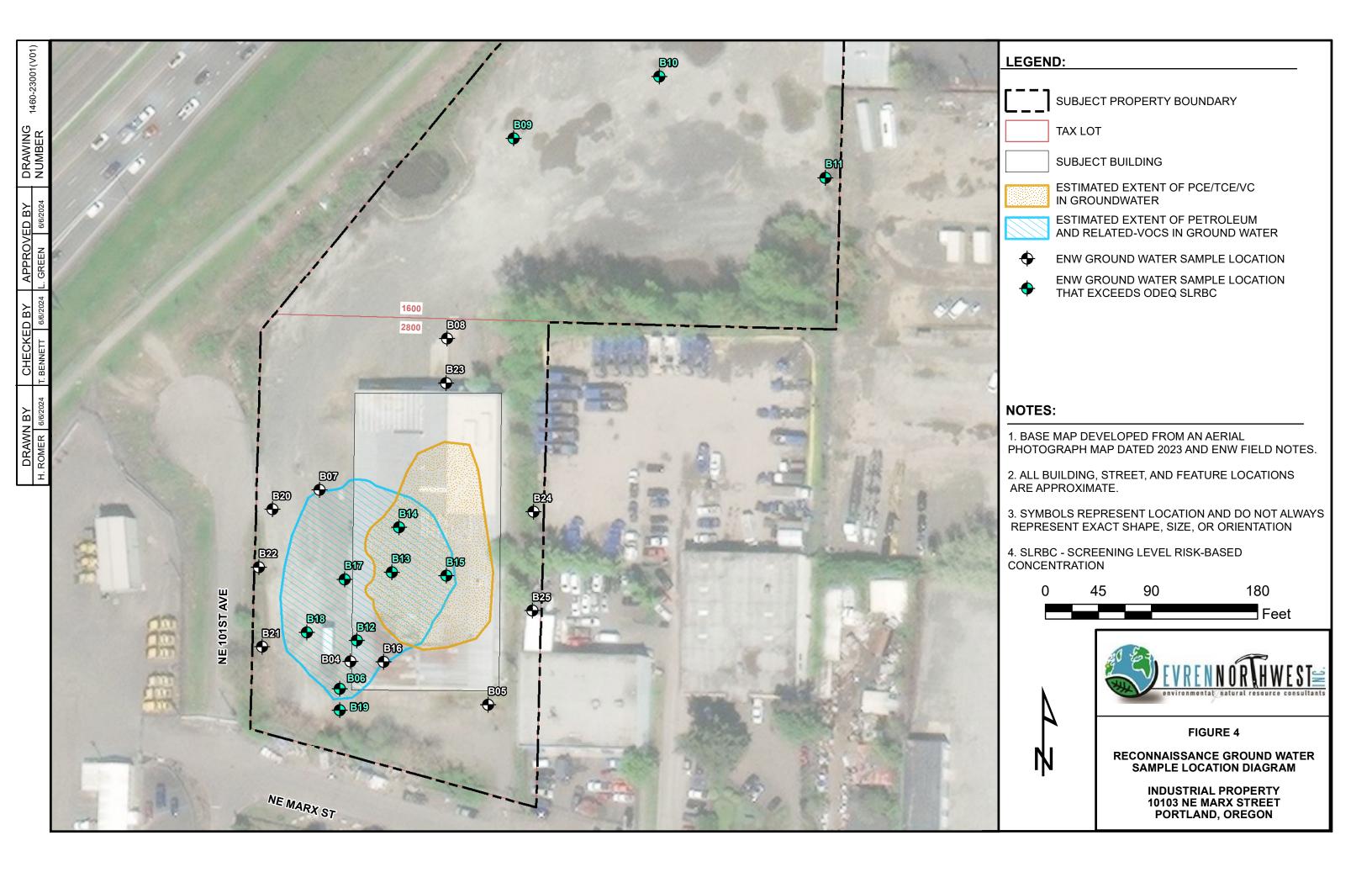
DRO = diesel-range organics.

>S = This groundwater RBC exceeds the solubility limit.









Attachment A

Acknowledgement Signature Form

Copy and use the following form to document review and understanding of the Contaminated Media Management Plan. Any person responsible for or conducting subsurface work at the site must sign this form.

Project No. 1752-23004-08

Acknowledgement Signature Form

To be signed by all personnel responsible for, or involved in subsurface work:

I have read this Contaminated Media Management Plan, and I agree to abide by these measures and safety rules and all applicable safety regulations while working at this site. I understand that any violation of these rules will result in my removal from the work area.

Brief Description of Scope of Work

Signature / Title - Project Role	Date

Attachment B

Site Contacts

Site contacts should be reviewed and updated prior to each scope of work at the site.

Client	Environmental Consultant*
Blackstone Consulting	EVREN Northwest, Inc.
Allan Coffee	Evan Bruggeman, RG
Email: acoffee@blackstoneconsulting.com	Email: <u>evanb@evren-nw.com</u>
Cell: (714) 343-7014	Phone: (503) 452-5561

Site Project Manager*	Geotechnical Engineer*
Name:	Name:
Company:	Company:
Email:	Email:
Office:	Cell:
Architect	Civil Engineer
Architect Name:	Civil Engineer Name:
	-
Name:	Name:

Contractor Office / Field Contacts	
Name:	Name:
Company:	Company:
Email:	Email:
Cell:	Cell:

Add additional contacts as appropriate for the scope of work. This may include subcontractors, the Oregon Department of Environmental Quality and/or the City of Portland.



Department of Environmental Quality

Northwest Region

700 NE Multnomah Street, Suite 600 Portland, OR 97232 (503) 229-5263 FAX (503) 229-6945 TTY 711

Tina Kotek, Governor

July 12, 2024

via electronic delivery

Evren Northwest, Inc. Attn: Lynn Green lynng@evren-nw.com

Re: DEQ Approval of Contaminated Media Management Plan

RMRE Investments PPA – Former Myers Container Site (ECSI #2062)

Lynn Green:

The Oregon Department of Environmental Quality (DEQ) has reviewed the document titled *Contaminated Media Management Plan* (CMMP) submitted on June 7, 2024, by Evren Northwest, Incorporated (Evren NW) on June 12, 2024, on behalf of CRP/Crest Salvage and Marx Owner, LLC (CRP). The CMMP was submitted in support of the scope of work for the Prospective Purchaser Agreement (PPA) and Consent Order executed by CRP and DEQ on February 7, 2024. The CMMP adequately addresses DEQ's comment letter provided to Evren NW on May 21, 2024, and DEQ approves the CMMP.

Please add this approval letter as an attachment and submit the finalized CMMP to DEQ. If you have any questions, please contact me at (503) 926-2257 or via email at rebecca.digiustino@deq.oregon.gov.

Sincerely,

Rebecca Digiustino Project Manager

NWR Cleanup Section

ec: Jeff Schatz, DEQ

Evan Bruggeman, Evren NW

Paul Trone, Evren NW