



RESIDUAL RISK ASSESSMENT



Cereghino Farms Property

18641 NE Sandy Boulevard
Gresham, Oregon

Multnomah County Parcel R321270

Agency Information

ODEQ LUST File Number 26-18-0058

Prepared for:

Mike Cereghino

Cereghino Farms

20525 NE Wistful Vista Drive
Fairview, Oregon 97024

Issued on:

September 13, 2023

Project No. 1257-18001-16

Executive Summary

At the request of Mike Cereghino, EVREN Northwest, Inc. (ENW) has prepared this *Residual Risk Assessment* for the Cereghino Farms property located at 18641 NE Sandy Boulevard in Gresham, Oregon.

The objective of this report and environmental work conducted at the subject site is to support the receipt of a “No Further Action” determination for the subject site from the Oregon Department of Environmental Quality (ODEQ). The subject site is listed on the Leaking Underground Storage Tank (LUST) database under ID 26-18-0058.

The subject site and most surrounding areas are currently zoned GI – General Industrial; zoning does not allow for residential use of the property; however, seasonal worker housing was observed during site investigations. Although it is unknown when the site was initially developed, the subject site has a long history of agricultural use and is currently occupied by a vegetable farm, pumpkin patch, and associated outbuildings.

The site setting is in temperate Gresham, Oregon, approximately 500 feet to the south of the Columbia Slough, at an approximate elevation of between 60 to 84 feet above mean sea level. Site work has revealed the presence of approximately six (6) to seven (7) feet of silty fine sands overlaying oxidized silty sandy gravel. Shallow ground water occurs in monitoring wells at the subject site at between roughly 5 and 20 feet bgs, suggesting the presence of a shallow ground-water table lying within the upper-most unconsolidated silty sands and fine gravels. Ground-water flow direction is generally to the north during monitoring events. During previous investigation,¹ ground water was observed seeping into the storm water drain field excavation at a depth of 8 to 10 feet bgs; however, that portion of the storm water system has since been removed and capped.

Previous environmental investigations reviewed and included in this report began in June 2018. Numerous scopes of work were conducted that included the 2019 decommissioning by removal of two USTs that had been determined to have leaked, impacting soil and ground water, and subsequently placed on the State’s LUST database under ID 26-18-0058. Several rounds of impacted soil removal and application of in-situ chemical oxidation compounds were conducted, resulting in a total of approximately 4,965 tons of impacted soil excavated and disposed of offsite. Ground water monitoring wells were installed in June 2019 and ground water was monitored quarterly through the fourth quarter of 2022.

Subsurface soil and ground water were identified as media of potential concern. A focused beneficial ground water use determination identified the following:

- There are no active domestic wells within a 0.25-mile radius of the site.
- The Columbia Slough is located approximately 500 feet north of the site; however, no surface water points of diversion were identified within this radius.
- Shallow ground water in the site vicinity is not currently, nor is reasonably likely to be developed for consumptive use.

¹ ENW, February 6, 2020. *Interim Remedial Action Measures: Additional Petroleum-Impacted Soil Removal, and In-Situ Chemical Oxidation in the French Drain Field, Cereghino Farms Property, 18641 NE Sandy Boulevard, Gresham, Oregon.*

- Based on a review of the site utilities map and utility depths provided by the City of Gresham, the likelihood of contaminate migration along existing water, storm, or sewer lines is very low.
- Ground water ingestion does not appear to be a complete exposure pathway at the site.

After completion of a conceptual site model, it was determined that the following constituents of potential concern (COPCs) were preliminarily identified:

- Benzene, ethylbenzene, naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, GRO, and DRO in subsurface soil.
- Benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, GRO, and DRO in ground water.

Following assessment of risk, the following constituents of concern (COCs) were identified at the subject site:

- **Subsurface soil:** GRO for exposure to a construction or excavation worker via the *Ingestion, Dermal Contact, and Inhalation* exposure pathway.
- **Ground Water:** GRO for exposure to a construction or excavation worker via the *Groundwater in an Excavation* exposure pathway.

An uncertainty analysis described inherent uncertainties in the risk characterization process. An evaluation of potential risk to ecological receptors found that they are unlikely to be impacted by site contaminants based on the nature of the site and surrounding area and absence of surface water or sensitive habitat in the immediate area surrounding residual impacts.

To ensure mitigation of residual risk, a Contaminated Media Management Plan will be prepared to manage provide guidance to property management on the management of both impacted subsurface soil and ground water on site, in the event of future redevelopment or earthwork on site.

Based on the information presented herein, which:

- Demonstrates an understanding of the nature and extent of residual impacts for historical operations at the subject site,
- Presents a residual risk assessment, and.
- Describes implementation of risk mitigation measures (Contaminated Media Management Plan, requirement for a vapor barrier to be incorporated into any new occupiable building designs).

ENW respectfully requests ODEQ issue a “No Further Action” determination for the subject site.

This

Residual Risk Assessment

for:

Cereghino Farms Property

18641 NE Sandy Boulevard
Gresham, Oregon

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

Mike Cereghino

Cereghino Farms

20525 NE Wistful Vista Drive
Fairview, Oregon 97024

and its assignees

Issued

September 13, 2023

by:



EXP. 2/1/2024

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Principal Engineering Geologist

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List of Acronyms and Abbreviations

bgs	below ground surface	OWRD	Oregon Water Resource
CFSL	Clean Fill Screening Level		Department
Client	Mike Cereghino	RBCs	risk-based concentrations
CMMP	Contaminated Media Management Plan	RBDM	<i>Risk-Based Decision Making for Remediation of Petroleum-Contaminated Sites</i> , ODEQ
COC	constituent of concern		September 2003 Guidance Document
COI	constituent of interest		
COPC	constituent of potential concern		
DRO	diesel-range organics	SGA	Sand and Gravel Aquifer
ENW	EVREN Northwest, Inc.	SLRBCs	screening-level risk-based concentrations
EPA	Environmental Protection Agency		
GRO	gasoline-range organics	SOW	scope of work
LNAPL	light non-aqueous phase liquid	TGA	Troutdale Gravel Aquifer
LOF	Locality of Facility	UGA	Upper Gravel Aquifer
LUST	leaking underground storage tank	USGS	US Geological Survey
NFA	No Further Action	UST	underground storage tank
OAR	Oregon Administrative Rule	VISL	Vapor Intrusion Screening Level
ODEQ	Oregon Department of Environmental Quality	VOC	volatile organic constituent

1.0 Introduction

At the request of Mike Cereghino (Client), EVREN Northwest, Inc. has prepared this *Residual Risk Assessment* for the Cereghino Farms property located at 18641 NE Sandy Boulevard in Gresham, Oregon (subject site, Figures 1 and 2).

Past use of the site has resulted in documented impacts to soil and ground water beneath the subject property associated with two underground storage tanks (USTs) and associated dispensers used to fuel farm vehicles and machinery on site. The subject site was placed on ODEQ's LUST database as LUST ID 26-18-0058 in January 2018.

This report presents a project site background, a summary of previous investigations and corrective actions including a beneficial water use survey, a residual risk assessment, and our conclusions and recommendations for measures to address the residual impacts to subsurface soil, ground water, and soil gas at the subject site. The objective of this report and the environmental assessments conducted at the subject site are to evaluate the potential risks to human health and the environment from the historical use of the subject property to support the receipt of a "No Further Action" (NFA) determination for the subject site from ODEQ.

2.0 Site Background

Site Name:	Cereghino Farms Property
LUST No.:	26-18-0058
Location:	18641 NE Sandy Boulevard Gresham, Oregon
Latitude:	45.54688 deg. N
Longitude:	-122.47088 deg. W
Legal Description:	T1N R3E Sec. 29B, Tax Lot 300
Site Owner:	Michael J Cereghino Tr. 20525 NE Wistful Vista Drive Fairview, Oregon 97024

Current Occupancy Cereghino Farms (vegetable farm and pumpkin patch)

2.1 Site Location and Description

The subject site is located at 18641 NE Sandy Boulevard in Gresham, Oregon (see Figures 1 and 2). The farm is in an area of industrial and agricultural development adjacent to NE Sandy Boulevard. The site is bordered to the south by NE Sandy Boulevard, on the north by railroad tracks, beyond which is a forested area and the Columbia Slough, on the west by farmland, and on the east by a relatively new industrial

business park. Land use in the vicinity of the site is predominantly commercial, industrial, and agricultural. The property is developed with a farmhouse, barn, a greenhouse, and several outbuildings. Figure 2 shows current site development.

2.2 Land Use

The site is zoned GI – General Industrial by the City of Gresham.² City of Gresham Development Code³ notes that the GI zone is primarily intended to provide space for a wide range of industrial uses, i.e., business enterprises serving primarily industrial clients, and employment-oriented uses in office-type buildings. Primary uses shall include manufacturing and associated industrial uses, knowledge-based industries such as graphic communications, creative services, and information technology, research and development facilities, professional services serving industrial and business clients and other industry focused uses, and limited retail and commercial professional services that cater to the general public. Residential uses of any kind are not permitted.

Adjacent property to the south, north and east are similarly zoned GI. The west-adjacent properties (on both sides of NE 185th Drive) are zoned moderate commercial (MC), along with properties on the west side of NE 181st Avenue. City of Gresham Development Code Article 4, Section 4.0400 notes that the MC district is applied to small nodes of commercial activity clustered around key intersections and is intended to function primarily as locally oriented centers serving smaller trade areas than the Community Commercial district. Permitted development types include commercial, retail, service and office uses. Most residential uses are not permitted in the MC district, though attached dwellings on a single lot, elderly housing, and residential facilities in conjunction with mixed use developments are permitted though limited in extent or subject to a Special Use Review.

Although residential use is not specifically permitted under current zoning of the subject site, seasonal worker housing is present on site.

2.3 Site Ownership and Occupancy

Complete ownership history of the subject site is unknown. The site is currently owned by Michael J. Cereghino. The subject site has a long history as a farm and is currently operating as a vegetable farm and pumpkin patch.

2.4 Site Development

The property is developed with a farmhouse, barn, a greenhouse, and several outbuildings. Until recently, petroleum motor fuel was stored in two USTs used for fueling farm vehicles and farm machinery. The USTs were located between the residence and barn/greenhouse complex in the southern portion of the site. The former location of the UST system is presented on Figure 2.

² Gresham, City of, Revised June 6, 2019. *Gresham Community Plan Map*.

³ Article 4, Section 4.0300

2.5 History of Operations

2.5.1 Early Operations

Although it is unknown when the site was initially developed, the subject site has a long history of agricultural use.

2.5.2 Current Operations

The subject site is currently occupied by a vegetable farm, pumpkin patch, and associated outbuildings.

2.6 Regulatory History and Listings

The subject site is regulated, or has been regulated in the past, under the following City, Federal and State programs:

Oregon Department of Environmental Quality

- LUST Facility ID No. 26-18-0058:
 - Reported to ODEQ on January 19, 2018.
 - Gasoline-derived impacts to soil, ground water, storm water, and free product were identified during site assessment.
 - LUST site remains under an “active” status.

3.0 Environmental Settings

3.1 Climate Information

Gresham, Oregon has a temperate climate with dry warm summers and mild winters with moderate year-round temperatures, wet winters, dry summers, and transitional summer and fall seasons. The warmest months are between July through September, when the temperature averages between 75.3 °F and 80.4 °F.⁴ The coolest months are between November and February, when the average temperature is between 44.9 °F and 52.2 °F. The average low temperature in January is 33.8 °F. Annual rainfall in Gresham is 56 inches, and average snow accumulation is 3 inches. Precipitation primarily as rain falls 164 days per year on the average.

3.2 Topography

The US Geological Survey Camas, Washington topographic quadrangle indicates the subject property is located at elevations ranging from 60 to 84 feet above mean sea level (see Figure 1). The property’s north and south ends both slope toward the center of the property, with the greenhouse encompassing the lowest portion of the site. On a more macro scale, the area of the property slopes gently northward toward the Columbia River flood plain.

⁴ <https://www.bestplaces.net/climate/city/oregon/gresham>

3.3 Surface Water Hydrology

The Columbia Slough system is the primary drainage within the immediate vicinity of the subject site. The system flows on a meandering, generally westerly trend with the nearest discharge location at the Columbia River northwest of the site. The site is also located within the Columbia South Shore Well Field – Wellhead Protection Area.

There are no lakes, creeks, springs, or wetland features on the subject property. The nearest surface water body is the Columbia Slough, located 500 feet to the north. The Columbia slough includes a series of sloughs and lakes that drain 18 miles of lowlands on the south shore of the Columbia River from Fairview Lake / Blue Lake, located just northeast of the subject site, to the mouth of the Willamette River. The eastern-most stretch (Upper Slough) originates at the west end of Fairview Lake, approximately one mile east-northeast of the subject site.

3.4 Ground Water Hydrogeology

Shallow, intermediate, and deep ground-water bearing units (aquifers) separated by lower permeability, less transmissive strata (confining units) are described for the area of the subject site through work by others.⁶ The aquifer units include from top to bottom: Upper Gravel Aquifer (UGA), Troutdale Gravel Aquifer (TGA), Confining Unit 1 (CU1), Troutdale Sandstone Aquifer (TSA), Confining Unit 2 (CU2), Sand and Gravel Aquifer (SGA). Municipal wells used as a domestic water backup supply by the City of Portland's Water Bureau generally derive ground water from deeper strata, including the TSA conglomerate and SGA.⁵

Shallow ground water occurs in monitoring wells at the subject site at between roughly 5 and 20 feet below ground surface (bgs), suggesting the presence of a shallow ground-water table lying within the upper-most unconsolidated silty sands and fine gravels. Ground-water flow direction is generally to the north during monitoring events.

3.5 Regional and Site Geology

3.5.1 Regional Geology

The site is located south of the Columbia River in the central portion of the Portland Basin. The Portland Basin is a sub-basin of the Willamette Valley Basin, a topographic and structural trough between 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. Tertiary marine strata and older Cascade volcanic rocks interfinger at depth and form the bedrock foundation beneath the Willamette Valley.⁶

⁵ ENW, January 17, 2016. *Ethylene Dibromide in Ground Water – Occurrence, Hydrogeology and Possible Sources*, prepared for Townsend Business Park, 23303 NE Sandy Boulevard, Fairview, Oregon.

⁶ 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.

Portland Basin is largely filled with Tertiary-age fluvial and lacustrine sediments, including the Troutdale Formation and underlying Sandy River Mudstone, which sediments exceed thicknesses of 1,400 feet.

3.5.2 Site Geology

The site is located on terraced fluvial deposits associated with the ancient Columbia River flood plain. Surface sediments are mapped on the southern portion of the site as unconsolidated, stratified bouldery and cobbly gravel and sand deposited during Missoula flood events. The northern portion of the site is mapped as an island of Hyaloclastic sandstone member, which is fluvial sedimentary strata composed of indurated coarse sandstone composed of glassy olivine+plagioclase-phyric basalt and conglomerates that is interbedded with members from the Sandy River Mudstone group (siltstone, sandstone and claystone).

Site work has revealed the presence of approximately six (6) to seven (7) feet of silty fine sands overlaying oxidized silty sandy gravel.

4.0 Cleanup Levels and Other Numeric Criteria

Oregon's environmental cleanup rules (Oregon Administrative Rules [OAR] 340-122) establish the standards and procedures for the protection of current and future public health, safety and welfare, and the environment in the event of a release or threat of a release of a hazardous substance. In the event of a release of a hazardous substance, remedial actions shall be implemented to achieve:

- Acceptable risk levels defined in OAR 340-122-0115, as demonstrated by a residual risk assessment; or
- Numeric cleanup standards developed as part of an approved generic remedy identified or developed by the Department under OAR 340-122-0047, if applicable; or
- For areas where hazardous substances occur naturally (e.g., metals, etc.), the background level of the hazardous substances, if higher than those levels specified above.

Acceptable risk levels may be evaluated through conducting a site-specific risk assessment that calculates exposure point concentrations for specific exposure pathway receptor-scenarios or use generic for hazardous substances under ODEQ's Risk-Based Decision Making (RBDM) guideline to streamline the risk assessment process (see below).

The assessment and remediation of hazardous substances in Oregon are conducted according to OAR 340, Division 122, *Hazardous Substance Remedial Action Rules*. The following cleanup standards and numeric criteria may be applied in evaluating site assessment results.

Soil Matrix. Under the Soil Matrix Cleanup Option Rules (OARs 340-122-0320 through 0360) cleanup standards are determined by assigning site-specific values to environmental parameters (e.g., soil type, depth to ground water, etc.). For purposes of risk-based evaluations of soil, Soil Matrix Cleanup Levels are often used for screening purposes, where potentially significant levels of petroleum contamination may be present if concentrations of total petroleum hydrocarbons in soil exceed their respective soil matrix cleanup level or soil matrix level I for conservative screening purposes and may require remedial action. Concentrations of total petroleum hydrocarbons lower than their corresponding Soil Matrix Cleanup Level

or Soil Matrix Level I if a cleanup level has not been determined, usually do not require any additional cleanup or risk management.

ODEQ Risk-Based Concentrations. ODEQ has compiled default risk-based screening reference levels (RBDM guidance document) for common exposure-pathway receptor-scenarios that may be utilized in lieu of site-specific risk calculations (OAR 340-122-0115). In particular, the pre-calculated RBC represents the concentration of a constituent of interest (COI) in the impacted medium (e.g., soil, ground water, or air) that potentially represents an unacceptable risk level.

The published RBCs represent a conservative default concentration of a COI in an impacted medium (e.g., soil, ground water, soil gas, or air). When COI concentrations on a site exceed the RBC, unacceptable human health impacts are possible.

- For carcinogens, the regulatory standard is represented by an excess cancer risk of one in one million (1×10^{-6}), and
- For non-carcinogens, this is represented by a Hazard Index of 1.

RBC exceedances typically trigger further investigation and potentially a human health risk assessment. Therefore, RBCs can be applied at sites as generic, conservative cleanup standards and are routinely used by ODEQ to determine if a site requires additional action. Site-specific parameters used in the equations to develop the RBCs are often adjusted to match actual conditions in developing site-specific cleanup levels.

RBCs are generally used to evaluate sampling analytical results as follows:

- ODEQ's lowest RBC for all pathways for residential receptors is used as an initial 'conservative' screening of a constituent. If a constituent's concentration exceeds its screening level risk-based concentration (SLRBC), it requires further evaluation. Otherwise, the constituent is considered unlikely to pose unacceptable risk to any human receptor.
- Because ODEQ Generic RBCs are based on several conservative assumptions (e.g., duration and type of exposure), exceeding an SLRBC does not necessarily indicate that additional investigation or remediation is required. Rather, the exceedance of a SLRBC may indicate that additional investigation and evaluation, including consideration of site-specific information (e.g., current, and future land uses), may be necessary to determine if remediation or other actions are necessary. In many cases, it is not possible to determine whether unacceptable risks to human health and the environment are present, and require further action, until a risk assessment, including evaluation of current and reasonably likely land and water uses, is complete.
- In general, ODEQ considers chemical concentrations less than SLRBCs to be protective of human health.

Should constituents be identified that also exceed their generic, but exposure pathway- and receptor-specific RBCs, then the appropriateness of additional site-specific methods allowed under the RBDM guidance document will be evaluated (e.g., the development of site-specific RBCs, sampling of soil gas and/or vapor, etc.).

Other Numeric Criteria. In addition to the above risk-based cleanup standards, concentrations were also compared to the following numeric criteria to determine if possible enrichment was occurring, and/or determine if there may be offsite soil disposal restrictions.

- **Background Metals.** Analytical data were compared with background concentrations established by ODEQ.^{7,8} ODEQ does not require cleanup for metals concentrations below default background concentrations. Background concentrations are used for screening data for metals in soil as part of the risk assessment.
- **U.S. Environmental Protection Agency's vapor intrusion screening levels.** U.S. Environmental Protection Agency's (EPA's) vapor intrusion screening levels (VISLs) for residential and commercial receptors were utilized for screening soil gas and sub-slab vapor. Soil gas/sub-slab vapor will also be screened against EPA Vapor Intrusion Screening Levels (VISLs).

5.0 Previous Investigations

The subject site has a long history as a farm and is currently operating as a vegetable farm and pumpkin patch. The property is developed with a vacant farmhouse, barn, a greenhouse, and several outbuildings including a 7-room workers' quarters. Until recently, petroleum motor fuel was stored in two USTs used for fueling farm vehicles and farm machinery. The USTs were installed approximately 75 years ago and committed to farm use. On June 8, 2018, both USTs, and all supply lines and fuel pump dispensers were emptied, cleaned, and taken out of service. The two USTs were decommissioned by removal on February 28, 2019.⁹ The location of former USTs and dispensers are presented on the Site Plan on Figure 2.

During several weeks following removal of the USTs, 1,382 tons of petroleum-impacted soil were removed during an interim remedial action and disposed of at an off-site disposal facility.¹⁰ Water sampled inside the excavation at a depth of 11 feet bgs contained gasoline and gasoline-related constituents above risk-based concentrations (RBCs). Pit water was pumped as needed to complete the excavation, managed in an on-site temporary tank and later transferred offsite for disposal. Prior to backfilling, PersulfOx® and ORC-Advanced was applied at the base of the excavation to enhance biotransformation by native petroleum-consuming microbes.

⁷ ODEQ, March 2013, Development of Oregon Background Metals Concentrations in Soil: Technical Report, Land Quality Division Cleanup Program.

⁸ ODEQ, October 28, 2002, Default Background Concentrations for metals, Memo from Toxicology Workgroup to DEQ Cleanup, Table 1 – Oregon DEQ Suggested Default Background Concentrations for Inorganic Contaminants in Various Environmental Media.

⁹ ENW, July 3, 2018. *Underground Storage Tank Assessment and Temporary Closure Report*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹⁰ ENW, April 2, 2019, *Interim Remedial Action Measures: Tank Decommissioning, Petroleum-Impacted Soil Removal, and In-Situ chemical Oxidation*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

In April 2019, additional soil and ground water assessment was conducted consisting of soil and reconnaissance ground water sampling from 14 drilled temporary borings and four test pits.¹¹ Assessment results indicated that most impacted soil was removed during the interim remedial action, though an impacted ground-water smear zone was present in the upper portion of the coarse-grained water-bearing unit.

In June 2019, four monitoring wells (MW01 through MW04) were installed at downgradient (MW01 and MW02), source area (MW03) and upgradient (MW04) positions relative to the former UST system.¹² Monitoring results confirmed a northward ground water flow direction at a gradient of 0.01 ft./ft. and the presence of elevated concentrations of dissolved gasoline-range organics (GRO) and GRO-related volatile organic constituents (VOCs) in shallow ground water beneath the site.¹³ The highest dissolved VOC concentrations were detected in MW03 and MW01. All four wells contained one or more dissolved constituents at concentrations exceeding ODEQ's SLRBCs. The plume morphology suggested that migration of dissolved constituents in ground water could be influenced by a storm water pipe located along the west-central boundary of the site.

In December 2019, 1,052 tons of additional PCS was excavated north of the onsite barn. Excavation included the removal and abandonment of two French drain lines present in this area. An estimated 10,215 gallons of impacted pit water was removed and approximately 1,760 pounds of PersulfOx[®] and 940 pounds of ORC-Advanced[®] pellets were applied to the exaction.¹⁴ At this time a fifth monitoring well (MW05) was installed farther downgradient of MW01.¹⁵

In August 2020,¹⁶ ENW excavated an additional 2,531 tons of PCS from the source area near the former USTs. The work removed soil containing the highest residual concentrations including soils containing light non-aqueous phase liquid (LNAPL) near monitoring well MW03. An estimated 5,452 gallons of impacted pit water was removed from the excavation and an additional 6,890 pounds of additional PersulfOx[®] and 716.3 pounds of ORC-Advanced[®] pellets were applied at the base of the excavation prior to backfill. At this time, monitoring well MW03 was removed, and a sixth monitoring well (MW06) was installed. Measurable LNAPL has not been detected at the site following this remedial action.

¹¹ ENW, May 9, 2019. *April 2019 Subsurface Investigation to Delineate Impacts to Shallow Ground Water*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹² ENW, July 19, 2019. *June 2019 Ground Water Monitoring Well Installation Report*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹³ ENW, July 24, 2019. *Second Quarter 2019 Ground Water Monitoring Report*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹⁴ ENW, February 6, 2020. *Interim Remedial Action Measures: Additional Petroleum-Related Soil Removal, and In-Situ Chemical Oxidation in the French Drain Field*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹⁵ ENW, February 7, 2020. *Monitoring Well MW-5 Installation and Quarterly Ground Water Monitoring Report*, Cereghino Farms, 18641 NE Sandy Boulevard, Gresham, Oregon 97223.

¹⁶ ENW, October 1, 2020. *Interim Removal Action Measures: Phase-Separated Product Abatement Report*, Cereghino Farms Property, 18641 NE Sandy Boulevard, Gresham, Oregon.

Multiple rounds of ground water monitoring have been conducted on site. The most recent and final ground water monitoring event was performed in the fourth quarter of 2022.¹⁷ Having evaluated 14 quarters of monitoring data for MW01, MW02 and MW04, 12 quarters of data for MW05, and nine quarters of data for MW06, decreasing GRO and related VOC concentration trends were apparent for all wells except MW06, where concentrations of GRO, ethylbenzene, naphthalene, 1,2,4-TMB, 1,3,5-TMB, and total xylenes concentrations appeared to have stabilized. These data suggested that the plume underlying the eastern half of the barn at the site has been attenuating with time in response to prior interim-remedial action measures. Ground water monitoring parameters measured since these interim remedial actions suggested that ground water chemistry will continue to enhance natural attenuation of GRO and related constituents in ground water at the subject site. Based on these results, no further ground water monitoring was recommended.

6.0 Corrective Action Measures

Corrective action measures including removal of impacted soil and in-situ chemical oxidation to remaining soils have been performed on site as follows. Waste receipts can be found in the corresponding reports documenting each event.

- February and March 2019:¹⁰ Removal of 1382 tons of petroleum-impacted soil from around the former UST nest. Application of PersulfOx[®] and ORC-Advanced at the base of the excavation to enhance biotransformation by native petroleum-consuming microbes.
- December 2019:¹⁴ Removal of 1,052 tons of petroleum-impacted soil from the north side of the barn and application of approximately 1,760 pounds of PersulfOx[®] and 940 pounds of ORC-Advanced[®] pellets to the exaction.
- August 2020:¹⁶ Excavation of an additional 2531 tons of PCS from the source area near the former USTs. Application of an additional 6,890 pounds of additional PersulfOx[®] and 716.3 pounds of ORC-Advanced[®] pellets were applied at the base of the excavation prior to backfill.

7.0 Current Known Extent of Impacts

This section presents ENW's understanding of residual impacts at the subject site based on previous investigations and completed corrective actions as described in Sections 5 and 6.

Impacted Soils: Residual impacted soils are present under Cereghino's barn, north of the barn below a depth of 9 feet in the central part of EX02, south of the barn below a depth of approximately 10.5 feet in EX01, and south and west of EX01. The highest soil impacts are present in the southeast corner of the barn. Soil impacts have not been detected extending immediately east and west of the building. The estimated extent of residual GRO-impacted soils is shown on Figure 4.

¹⁷ ENW, December 7, 2022. *Fourth Quarter 2022: Final Quarterly Ground Water Monitoring Report*, Cereghino Farms Property, 18641 NE Sandy Boulevard, Gresham, Oregon.

Ground Water: Based on post-remediation quarterly ground water monitoring, GRO and related VOCs are present in residual ground water with the estimated extent shown on Figure 4.

7.1 Media of Concern

Work completed has evaluated surface soil, subsurface soil and ground water for impacts related to a historical release of petroleum motor fuel from two USTs and associated pumps with the following results:

- **Surface soil** (above 3 feet bgs) was not identified as containing constituents of potential concern (COPCs) at concentrations above SLRBCs.
- **Subsurface soil** (below 3 feet bgs) was identified as containing COPCs at concentrations above SLRBCs.
- **Ground water** was identified as containing COPCs at concentrations above SLRBCs.
- **Soil gas/sub-slab vapor** was not identified as containing COPCs at concentrations above SLRBCs/EPA Vapor Intrusion Screening Levels (VISLs).

Therefore, subsurface soil and ground water are identified as current media of concern. Tables 1, 2, and 3 present a summary of soil, reconnaissance ground water, and soil gas/sub-slab vapor analytical results, respectively. Sample locations are shown on Figure 3.

7.1.1 Land Use— Potential Receptors

The site is currently zoned GI – General Industrial by the City of Gresham which does not allow residential use of any kind. However, seasonal worker housing has been observed on site during site work. Therefore, future potential urban residents as well as occupational workers were retained as possible receptors. Urban residents and occupational workers may come into contact with surface soils but are considered unlikely to come into direct contact with subsurface soils. However, they may be exposed to volatile constituents of impacted soils that migrate to indoor or outdoor air, if present.

Construction workers and excavation workers may have contact with subsurface soils. Since subsurface soils are impacted in the depth range of some utility trenches and basement excavations, future construction and excavation workers were retained as possible receptors.

Therefore, based on current and likely future land uses, potential current and future receptors at the site include urban residents, occupational workers, construction workers, and excavation workers. It is assumed that these receptors are conservative with respect to consideration of the occasional site visitor.

7.1.2 Ground-water Use

See Section 8.0 for a Beneficial Water Use Determination for the subject site. Based on the locations, depths of completion, and available lithologic information, none of the wells are considered to be reasonably likely to come in contact with site-related substances in ground water. Additionally, a water well previously on site was decommissioned in 2021,¹⁸ leaving no water wells onsite. A search of water

¹⁸ ENW, August 30, 2021. *Water Well Abandonment Report*, Cereghino Farms Property, 18641 NE Sandy Boulevard, Gresham, Oregon.

well logs in OWRD's Groundwater Resource Information Database indicate a number of water wells in the same Township/Section/Range as the subject property.¹⁹ However, no water wells were identified within the Locality of Facility (LOF) through this search and all the properties in the immediate area of the subject site, including the subject site, are connected to a municipal water system.

Therefore, based on these findings, the ground water residual impacts at the subject site are unlikely to affect current or future beneficial uses of water resources in the vicinity of the site.

7.1.3 Pathways of Concern

An exposure pathway is the course a constituent takes from a source to an exposed population. Exposure pathways include four elements:

- (1) the source of contamination;
- (2) the means by which a constituent will be released, retained, or travel in a given medium (e.g., air or ground water);
- (3) a point of potential contact with a receptor; and
- (4) the means by which contact will occur (e.g., inhalation, ingestion).

If any of these elements are missing, the pathway is considered incomplete. Table 7-1 presents a summary of the pathway analysis for human receptors.

¹⁹ Multnomah County Tax Map 1N1E11DC.

Table 7-1. Summary of Pathway Analysis for Human Receptors

Potentially Exposed Population	Exposure Route, Medium and Exposure Point	Pathway Considered	Reason for Selection or Exclusion
Subsurface Soil (>3 feet bgs)			
Current/Future Urban Resident and Occupational Worker	Soil ingestion, dermal contact, and Inhalation	No	Soil impacts to subsurface soils at depth greater than what a resident or occupant would likely encounter.
	Inhalation of volatiles (outdoor air)	YES	Soil is impacted with hazardous volatile constituents.
	Inhalation of volatiles from impacted soil intruding into building (indoor air)		
	Leaching to ground water, followed by direct ingestion	No	Ground water in locality of facility not in use for drinking water.
Current/Future Construction Worker	Direct ingestion, inhalation of volatiles and dermal contact with soil	YES	Soil impacts have been identified at depths a construction worker may encounter.
Current/Future Excavation Worker	Direct ingestion, inhalation of volatiles and dermal contact with soil	YES	Excavation workers may encounter impacted soils at depth during utility work or excavation for a basement.
Ground Water			
Current/Future Urban Resident and Occupational Worker	Ingestion, and Inhalation from tap water	No	Ground water in locality of facility not in use for drinking water
	Inhalation of volatiles (outdoor air)	YES	Ground water is impacted with hazardous volatile constituents.
	Inhalation of volatiles from impacted GW intruding into building (indoor air)	YES	Ground water is impacted with hazardous volatile constituents and is developed with an occupied structure.
Future Construction Worker	GW in an excavation	YES	Construction and/or Excavation workers may encounter impacted ground water.
Future Excavation Worker	GW in an excavation		

A review of City of Gresham zoning indicated that GI –General Industrial, which is how the subject site is zoned, is intended for commercial and industrial use only, with no residential use allowed. However, during previous site investigations, it was observed that seasonal worker housing was present on site. Therefore, urban residential receptors were retained in the exposure pathways.

Based on the above discussion, a conceptual site model has been developed for the site, depicting all exposure pathways evaluated and retained for evaluation of human health risk. The conceptual site model is presented in Figure 5.

8.0 Beneficial Water Use Determination

Water use has been determined through completion of a Beneficial Water Use Determination prepared under a separate cover.²⁰ For a more detailed description of the beneficial water use determination evaluation, refer to that document.

8.1 Locality of Facility

The following LOF is based on the current known extent of impacts, quarterly monitoring of impacts to determine long-term constituent trends in residual impacted ground water, and the evaluation of the potential to migrate described above. All locations with GRO or related constituent concentrations have been included in this LOF. The LOF is shown on Figure 4 and is consistent with the estimated extent of residual ground water impacts.

8.2 Summary of Beneficial Water Use Determination

ENW reviewed ground water usage within four square sections (19, 20, 29 and 30) of the site, including review of OWRD water well and water rights databases, and previous studies. Two or possibly three water wells were located at the subject site or adjacent properties to the south or west, though these wells have been abandoned or destroyed and are no longer used. However, Cereghino brothers retain a water right (certificate #33866) for irrigating a 20-acre parcel south of the subject property. The nearest off-site water wells are inactive 500-foot-deep RPUD wells completed in the SGA and located approximately 700 to 1,000 feet west- to northwest of the LOF, west of NE 185th Avenue. A water right POD (Water Right ID #200566) owned by Hillsboro School District is associated with MULT 1274, a 448-foot-deep well completed in the SGA and located approximately 1,550 feet north-northwest of the LOF. The subject site is located within the 3-year time to travel capture zone of this well. Since these wells are completed in the deeper SGA, they are protected from shallower impacts by confining units. Given their distal location and deeper source of ground water, impacts associated with the site are unlikely to affect these ground water rights.

Only one surface water right POD (cert #80434) was identified within ¼-mile (approx. 820 feet) down-gradient of the LOF, which POD is for diverting surface water from the Columbia Slough for irrigation. ENW concludes that given the distance from the LOF, POD #80434 is not at risk of being impacted by the release at the subject site.

Additionally, all the properties in the immediate area of the subject site, including the subject site, are connected to a municipal water system.

Based on these findings, the ground water residual impacts at the subject site are unlikely to affect current or future beneficial uses of water resources in the vicinity of the site.

²⁰ ENW, March 5, 2021. *Beneficial Water Use Determination, Cereghino Farms Property, 18641 NE Sandy Boulevard, Gresham, Oregon.*

9.0 Risk Assessment

A risk assessment was completed to evaluate risk at the site. As described in Section 7, subsurface soil, ground water and soil gas/sub-slab vapor were identified as media of concern.

9.1 Risk Identification

As previously described in Section 7, the following COPCs were tentatively identified at the subject site:

- Benzene, ethylbenzene, naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, GRO, and DRO in subsurface soil.
- Benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, GRO, and DRO in ground water.

9.1.1 Further Evaluation of Constituents of Potential Concern in Subsurface Soil

Table 4 screens the COPCs in subsurface soil by comparing the highest concentration detected in soil for each COPC to the RBC for applicable exposure pathways. Table 4 shows that GRO exceeds its construction worker RBC for the *Soil Ingestion, Dermal Contact, and Inhalation* pathway.

While benzene, ethylbenzene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes exceeded either or both their respective urban residential and occupational worker RBCs for the *Vapor Intrusion into Buildings* and/or the *Volatilization to Outdoor Air* pathways, these constituents were further evaluated via soil gas and sub-slab testing. Results from sub-slab sampling and recent soil gas sampling indicated no COPCs were present above ODEQ SLRBCs.

Additionally, as shown on Table 3, the combined results of four rounds of vapor intrusion testing suggest a general reduction in petroleum-related vapor concentrations at the soil gas four sampling locations, with no constituents exceeding ODEQ SLRBCs. Subsequent in-situ chemical oxidation treatment in the source area is anticipated to continue to reduce residual petroleum impacts at the source area through natural and enhanced biotransformation.

9.1.2 Further Evaluation of Constituents of Potential Concern in Ground Water

Table 5 screens the COPCs in ground water by comparing the highest concentration detected in ground water for the last four monitoring events for each COPC to the RBC for applicable exposure pathways. Table 5 shows that GRO exceeds its construction and excavation worker RBC for the *Groundwater in an Excavation* pathway.

9.1.3 Risk Summary

This risk assessment identified the following COCs in subsurface soil:

- GRO, specifically for a future construction and/or excavation worker for the *Soil Ingestion, Dermal Contact, and Inhalation* pathway.

This risk assessment identified the following COCs in ground water:

- GRO, specifically for a future construction and/or excavation worker for ground water in *excavation* pathway.

9.2 Uncertainty Analysis

An uncertainty analysis is a discussion of uncertainties in the risk estimates and their impacts in terms of underestimating or overestimating calculated potential risks.

There are inherent uncertainties in the risk characterization process. These uncertainties are associated with:

- The validity of adding risks or hazard quotients for multiple chemicals.
- The validity of adding risks or hazard quotients across pathways.
- Lack of reliable toxicological data.
- The validity of the critical underlying assumption in the dose-response model for carcinogens (linearized multistage model) that there is no threshold for carcinogenesis.
- The probability of adverse effects in a human population that is highly variable genetically and in age, activity level and lifestyle.

Uncertainty Based on Data Gaps. A sampling program was developed to target areas of likely impact, based on historical site uses. Therefore, samples were not collected from all areas of the subject site. However, since this justified sampling program targeted areas where impacts were likely present, the statistical distribution of detected constituents would be biased high, if detected. It is not practical to sample all areas of the site, given the inaccessibility of many of these areas due to the present of site structures. Therefore, the uncertainty in contaminant distribution would not likely change the findings of this assessment.

9.3 Further Discussion of Risk – Subsurface Soil

9.3.1 Subsurface Soil

Only one complete exposure pathway and receptor remain in soil:

- A construction worker via *Soil Ingestion, Dermal Contact, and Inhalation*.

In order to mitigate risk through this exposure pathway, a Contaminated Media Management Plan (CMMP) will be prepared to ensure proper management of residual impacted soil.

9.3.2 Ground Water

Only one complete exposure pathway and receptor remain in ground water:

- A construction or excavation worker via *Groundwater in an Excavation*.

In order to mitigate risk through this exposure pathway, a CMMP will be prepared to ensure proper management of residual impacted ground water.

9.4 Ecological Exposure Assessment

ODEQ regulations (OAR 340-122-244(3)) generally do not require screening for potential ecological impact if the Site is devoid of ecologically important species and habitat and if the following conditions can be demonstrated:

1. Contaminated soils are only present at depths greater than 3 feet bgs, or, if present at a shallower depth, such soils cover an area no greater than 0.125 acre;
2. Surface water has not been affected by the release;
3. Contaminated ground water does not, and is not, reasonably likely to discharge to surface waters or otherwise reach the surface in a manner that might result in contact with ecological receptors; and
4. Contaminated ground water does not and is not reasonably likely to come into contact with aquatic sediments (OAR 340-122-0244(3)).

Use of the site for foraging is limited for all species given the agricultural land use, and no available habitat in the area of residual impacts. Although wetlands, surface waters, or other sensitive environments are adjacent to the north site, none are located within the LOF (see Figure 4). The lack of receptors strongly suggests ecological risks are unlikely due to site related COPCs in subsurface soil, ground water, and soil gas. Therefore, since conditions 1 through 4 listed above appear to be true for the site, ENW concludes that ecological screening is not warranted.

10.0 Conclusions and Recommendations

The objective of this report and environmental work conducted at the subject site is to support the receipt of a “No Further Action” determination for the subject site from ODEQ. Previous environmental investigations reviewed and included in this report began in June 2018. Numerous scopes of work were conducted that included the 2019 decommissioning by removal of two USTs that had been determined to have leaked, impacting soil and ground water, and placed on the LUST database under ID 26-18-0058. Several rounds of impacted soil removal and application of in-situ chemical oxidation compounds were conducted, resulting in a total of approximately 4,965 tons of impacted soil excavated and disposed of offsite. Ground water monitoring wells were installed in June 2019 and ground water was monitored quarterly through the fourth quarter of 2022.

A risk assessment was completed to evaluate risk at the site. As previously described, subsurface soil and ground water were identified as media of concern. GRO was identified as the only constituent of concern in subsurface soil and ground water at the subject site. No COPCs were identified in soil gas or sub-slab vapor.

To ensure mitigation of residual risk, a Contaminated Media Management Plan will be prepared to manage provide guidance to property management on the management of both impacted subsurface soil and ground water on site, in the event of future redevelopment or earthwork on site.

Based on the information presented herein, which:

- Demonstrates an understanding of the nature and extent of residual impacts for historical operations at the subject site,
- Presents a residual risk assessment, and.
- Describes implementation of risk mitigation measures:
 - Contaminated Media Management Plan

ENW respectfully requests ODEQ issue a “No Further Action” determination for the subject site.

11.0 Limitations

The conclusions of this report are based on information supplied by others as well as interpretations by qualified parties. The focus of this Assessment does not extend to the presence of the following conditions unless they were the express concerns of contacted personnel, report and literature authors or the work scope:

1. Naturally occurring toxic or hazardous substances in subsurface soils, geology and water,
2. Toxicity of substances common in current habitable environments, such as stored chemicals, products, building materials and consumables,
3. Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards,
4. Unpredictable events that may occur after ENW’s site visit, such as illegal dumping or accidental spillage.

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. ENW’s investigation has been focused only on the potential for contamination that was specifically identified in the scope of work (SOW). Therefore, if contamination other than that specifically mentioned is present and not identified as part of a limited SOW, ENW’s environmental investigation shall not be construed as a guaranteed absence of such materials.

We have performed our services for this project in accordance with our agreement and understanding with the client. This document and the information contained herein have been prepared solely for the use of the client and his representatives.

ENW performed this study under a limited scope of services per our agreement. It is possible, despite the use of reasonable care and interpretation, that ENW may have failed to identify regulation violations related to the presence of hazardous substances other than those specifically mentioned at the closure site. ENW assume no responsibility for conditions that we did not specifically evaluate or conditions that were not generally recognized as environmentally unacceptable at the time this report was prepared.

Table 1 - Summary of Analytical Data, Soil

Location ID		B01	B02	B03		B04	B05	B06	B07	B08	B09	B10	Stockpile	B11	B12	B13	B14	B15	EX01-GS01	EX01-GS02
Sample ID		B01/6.75	B02/6.5	B03/2-3	B03/6.25	B04/6.75	B05/2.5	B06/2	B07/6	B08/6.75	B09/6.25	B10/6	SP01-180430	B11-13	B12-12.5	B13-13	B14-7.5	B15-13	GS01-E WALL N @10.5	GS02-E WALL C @10.5
Date Sampled		4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/19/18	4/30/18	4/30/18	4/30/18	4/30/18	4/30/18	4/30/18	3/5/19	3/5/19
Depth Sampled (feet)		6.75	6.5	2-3	6.25	6.75	2.5	2	6	6.75	6.25	6	--	13	12	13	14	13	10.5	10.5
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		West end of UST 2	East end of UST 2	North end of UST 1	North end of UST 1	South end of UST 2	South end of gas dispenser	West of gas dispenser	West 20' of UST#1 and #2	North 30 feet of UST#1 and #2	South 20 feet of UST#1 and #2	East 15 feet of UST #1 and #2.	Soil Stockpile	Next to B03	Next to B02	Next to B09	21 ft south of B13	Next to B07	East wall north at soil/water interface	East wall, center, at soil/water interface
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)	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	---	54	---	---	---	---	7.2	---	---	---	---	---	---	---	---	---	---	8.0	1.1
EDB (1,2-dibromoethane)	c, v	---	<0.5 (ND)	---	---	---	---	<0.5 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
EDC (1,2-dichloroethane)	c, v	---	<0.5 (ND)	---	---	---	---	<0.5 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	c, v	---	160	---	---	---	---	110	---	---	---	---	---	---	---	---	---	---	110 ve	33
MTBE (methyl t-butyl ether)	c, v	---	<0.5 (ND)	---	---	---	---	<0.5 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	c, v	---	26	---	37	---	---	50	---	---	---	---	---	---	---	---	---	---	---	---
iso-Propylbenzene (cumene)	nc, v	---	12	---	---	---	---	16	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	nc, v	---	820	---	---	---	---	490	---	---	---	---	---	---	---	---	---	---	300 ve	74 ve
1,2,4-Trimethylbenzene	nc, v	---	310	---	---	---	---	430	---	---	---	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	nc, v	---	73	---	---	---	---	220	---	---	---	---	---	---	---	---	---	---	---	---
Xylenes	nc, v	---	1070	---	---	---	---	1120	---	---	---	---	---	---	---	---	---	---	670 ve	240 ve
Metals																				
Lead	NA, nv	---	9.04	---	---	---	---	20.5	---	---	---	---	---	---	---	---	---	---	---	---
Semivolatile Organic Constituents																				
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	nc, v	---	---	---	0.18	---	---	0.66	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	nc, v	---	---	---	0.12	---	---	0.57	---	---	---	---	---	---	---	---	---	---	---	---
Benz[a]anthracene	c, v	---	---	---	0.038	---	---	0.2	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	0.017	---	---	0.131	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	c, nv	---	---	---	0.013	---	---	<0.1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	c, nv	---	---	---	<0.01 (ND)	---	---	<0.1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	c, nv	---	---	---	0.016	---	---	<0.1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	c, nv	---	---	---	<0.01 (ND)	---	---	<0.1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	nc, nv	---	---	---	0.044	---	---	0.21	---	---	---	---	---	---	---	---	---	---	---	---
Fluorene	nc, v	---	---	---	0.26	---	---	1.0	---	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	<0.01 (ND)	---	---	<0.1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	nc, v	---	---	---	0.092	---	---	0.53	---	---	---	---	---	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons																				
GRO	nc, v	9000 ve	15000 ve	11000 ve	12000 ve	2900	<5 (ND)	6500 ve	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	---	---	---	---	---	8200 ve	3000
DRO	nc, v	360 x	1100 x	670 x	1600 x	1100 x	<50 (ND)	7000 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	---	---	---	---	---	1000 x	430 x
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	---	---	---	---	---	<250 (ND)	<250 (ND)

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.
- = 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.

Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

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

j = The result is below normal reporting limits. The value reported is an estimate.

x = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		EX01-GS03	EX01-GS04	EX01-GS05	EX01-GS06	EX01-GS07	EX01-GS08	EX01-GS09	EX01-GS10	EX01-GS11	EX01-GS12	EX01-GS13	EX01-GS14	EX01-GS15	EX01-GS16	EX01-GS17	EX01-GS18	EX01-GS19	EX01-GS20	EX01-GS21	EX01-GS22
Sample ID		GS03-E WALL S @10.5	GS04-S WALL E @10.5	GS05-S WALL W @10.5	GS06-E WALL N @5	GS07-E WALL N @8.5	GS08-E WALL C @6	GS09-E WALL C @8.5	GS10-E WALL S @7	GS11-E WALL S @9	GS12-S WALL E @7	GS13-S WALL E @9	GS14-S WALL W @7	GS15-S WALL W @9	GS16-W WALL S @5.5	GS17-W WALL N @6	GS18-N WALL C @7	GS19-N WALL C @10.5	GS20-N WALL C @8.5	GS21-N WALL S @10.5	GS22-W WALL S @7.5
Date Sampled		3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/5/19	3/6/19	3/6/19	3/6/19	3/6/19
Depth Sampled (feet)		10.5	10.5	10.5	5	8.5	6	8.5	7	9	7	9	7	9	5.5	6	7	10.5	8.5	10.5	7.5
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		East wall, south, at soil/water interface	South wall, east, at soil/water interface.	South wall, west, at soil/water interface	East wall, north, at base of sandy silts.	East wall north, midway down sandy gravels.	East wall center, at base of sandy silts.	East wall center, midway down sandy gravels.	East wall south, at base of sandy silts.	East wall south, midway down sandy gravels.	South wall, east at base of sandy silts.	South wall, east, midway down sandy gravels.	South wall west, at base of sandy silts.	South wall west, midway down sandy gravels.	West wall, south, at base of sandy silts.	West wall, north, at base of sandy silts.	North wall, center, at base of sandy silts.	North wall, center, at soil/water interface	North wall, center, midway up sandy gravels.	West wall, south, at soil/water interface.	West wall, south, midway up sandy gravels.
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)	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)	mg/Kg (ppm)
Volatile Organic Constituents																					
Benzene	c, v	1.3	5.2	9.7	<6 (ND)	---	---	2.1	---	---	---	<0.15 (ND)	---	---	---	---	---	5.5	---	1.3	---
EDB (1,2-dibromoethane)	c, v	---	---	<0.5 (ND)	---	---	---	---	---	---	---	<0.25 (ND)	---	---	---	---	---	---	---	---	---
EDC (1,2-dichloroethane)	c, v	---	---	<0.5 (ND)	---	---	---	---	---	---	---	<0.25 (ND)	---	---	---	---	---	---	---	---	---
Ethylbenzene	c, v	51 ve	71 ve	170	<87 (ND)	---	---	51 ve	---	---	---	47	---	---	---	---	---	100 ve	---	39	---
MTBE (methyl t-butyl ether)	c, v	---	---	<0.5 (ND)	---	---	---	---	---	---	---	<0.25 (ND)	---	---	---	---	---	---	---	---	---
Napthalene	c, v	---	---	48	---	---	---	21 ve	---	---	---	38	---	---	---	---	---	---	19 ve	---	---
iso-Propylbenzene (cumene)	nc, v	---	---	20	---	---	---	---	---	---	---	9.0	---	---	---	---	---	---	---	---	---
Toluene	nc, v	98 ve	200 ve	290	<190 (ND)	---	---	150 ve	---	---	---	52	---	---	---	---	---	260 ve	---	55	---
1,2,4-Trimethylbenzene	nc, v	---	---	520	---	---	---	---	---	---	---	340	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	nc, v	---	---	160	---	---	---	---	---	---	---	100	---	---	---	---	---	---	---	---	---
Xylenes	nc, v	360 ve	480 ve	1130	<540 (ND)	---	---	580 ve	---	---	---	450	---	---	---	---	---	660 ve	---	280 ve	---
Metals																					
Lead	NA, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Semivolatile Organic Constituents																					
Polycyclic Aromatic Hydrocarbons																					
Acenaphthene	nc, v	---	---	---	---	---	---	0.25	---	---	---	0.16	---	---	---	---	---	---	0.19	---	---
Anthracene	nc, v	---	---	---	---	---	---	0.11	---	---	---	0.067	---	---	---	---	---	---	0.078	---	---
Benz[a]anthracene	c, v	---	---	---	---	---	---	0.037	---	---	---	0.029	---	---	---	---	---	---	0.028	---	---
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	---	---	---	0.029	---	---	---	0.023	---	---	---	---	---	---	0.023	---	---
Benzo[b]fluoranthene	c, nv	---	---	---	---	---	---	0.013	---	---	---	<0.01 (ND)	---	---	---	---	---	---	<0.01 (ND)	---	---
Benzo[k]fluoranthene	c, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	<0.01 (ND)	---	---	---	---	---	---	<0.01 (ND)	---	---
Chrysene	c, nv	---	---	---	---	---	---	0.016	---	---	---	0.010	---	---	---	---	---	---	0.012	---	---
Dibenz[a,h]anthracene	c, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	<0.01 (ND)	---	---	---	---	---	---	<0.01 (ND)	---	---
Fluoranthene	nc, nv	---	---	---	---	---	---	0.045	---	---	---	0.03	---	---	---	---	---	---	0.034	---	---
Fluorene	nc, v	---	---	---	---	---	---	0.27	---	---	---	0.18	---	---	---	---	---	---	0.20	---	---
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	<0.01 (ND)	---	---	---	---	---	---	<0.01 (ND)	---	---
Pyrene	nc, v	---	---	---	---	---	---	0.1	---	---	---	0.069	---	---	---	---	---	---	0.079	---	---
Total Petroleum Hydrocarbons																					
GRO	nc, v	4700	7100 ve	9100 ve	<5 (ND)	8300 ve	<5 (ND)	8000 ve	<5 (ND)	2300	<5 (ND)	15000 ve	<5 (ND)	1200	<5 (ND)	<5 (ND)	35	7400	11000	2700	1700
DRO	nc, v	1000 x	510 x	880 x	<50 (ND)	1100 x	<50 (ND)	1500 x	<50 (ND)	440 x	<50 (ND)	3000 x	<50 (ND)	450 x	<50 (ND)	<50 (ND)	<50 (ND)	790 x	2100 x	700 x	250 x
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)

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.

— = 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.

Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

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

j = The result is below normal reporting limits. The value reported is an estimate.

x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		EX01-GS23	EX01-GS24	EX01-GS25	EX01-GS26	EX01-GS27	Soil Pile 01	Fill Sand	TP01	TP02	TP02	EX01-GS31	EX01-GS32	EX01-GS33	Soil Pile 02	EX01-GS34	EX01-GS35	EX01-GS36	EX01-GS37	EX01-GS38	EX01-GS39
Sample ID		GS23-W WALL N @11	GS24-W WALL N @8	GS25-W WALL C @10.5	GS26-W WALL C @8.5	GS27-W WALL C @6	SP01-190306	FILL SAND-190307	GS28-TP01-6'	GS29-TP02-SW-6'	GS30-TP02-EW-5'	GS31-N Wall C-190308-10.5	GS32-N Wall C-190308-8.5	GS33-N Wall C-190308-6	SP02-190308	GS34-EW-SWI-11.5'	GS35-EW-6'	GS36-WW-SWI-11.5'	GS37-WW-6'	GS38-EW-EX-6'	GS39-EW-EX-5'
Date Sampled		3/6/19	3/6/19	3/6/19	3/6/19	3/6/19	3/6/19	3/7/19	3/8/19	3/8/19	3/8/19	3/8/19	3/8/19	3/8/19	3/8/19	3/13/19	3/13/19	3/13/19	3/13/19	3/13/19	3/13/19
Depth Sampled (feet)		11	8	10.5	8.5	6	---	---	6	6	5	10.5	8.5	6	---	11.5	6	11.5	6	6	5
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		West wall, north, at soil/water interface.	West wall, north, midway up sandy gravels.	West wall, center, at soil/water interface.	West wall, center, midway up sandy gravels.	West wall center, base of sandy silts.	First pile of clean overburden soils.	Dredge sand sourced for filling the excavation	Test pit 01 located approximately 60 feet north of excavation	Test Pit 02 - located at northeast corner of barn south wall.	Test Pit 02 - located at northeast corner of barn east wall.	North wall, central, at soil/water interface.	North wall, center, midway in sandy gravels.	North wall, center, at base of sandy silts.	Second pile of clean overburden soils	East wall of excavation at the soil and water interface	West wall of the excavation in the fine sand above the sandy gravel	West wall of the excavation at the soil and water interface	West wall of the excavation in the fine sand above the sandy gravel	East wall of the expanded excavation in the fine sand above the sandy gravel	East wall of the expanded excavation in the fine sand above the sandy gravel
Constituent of Interest		Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Volatile Organic Constituents																					
Benzene	C, V	0.26	---	0.30	---	---	---	---	---	---	---	1.5	---	---	---	<0.2 (ND)	---	0.70	---	---	---
EDB (1,2-dibromoethane)	C, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EDC (1,2-dichloroethane)	C, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	C, V	0.27	---	5.6	---	---	---	---	---	---	---	24	---	---	---	3.5	---	20	---	---	---
MTBE (methyl t-butyl ether)	C, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	C, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
iso-Propylbenzene (cumene)	nc, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	nc, V	0.15	---	11	---	---	---	---	---	---	---	42 ve	---	---	---	5.1	---	36	---	---	---
1,2,4-Trimethylbenzene	nc, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	nc, V	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Xylenes	nc, V	0.31	---	43	---	---	---	---	---	---	---	130 ve	---	---	---	26	---	110 ve	---	---	---
Metals																					
Lead	NA, nv	---	---	---	---	---	---	4.14	---	---	---	---	---	---	---	---	---	---	---	---	---
Semivolatile Organic Constituents																					
Polycyclic Aromatic Hydrocarbons																					
Acenaphthene	nc, V	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	nc, V	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Benz[a]anthracene	C, V	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[a]pyrene (BaP equivalents)	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[b]fluoranthene	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Benzo[k]fluoranthene	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Dibenz[a,h]anthracene	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	nc, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Fluorene	nc, V	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Indeno[1,2,3-cd]pyrene	C, nv	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	nc, V	---	---	---	---	---	---	<0.01 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons																					
GRO	nc, V	9.3	140	590	6.6	<5 (ND)	19	<20 (NP)	44	<5 (ND)	<5 (ND)	2100	5900	54	<5 (ND)	480	---	1400	110	---	<5 (ND)
DRO	nc, V	<50 (ND)	<50 (ND)	160 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (NP)	<50 (ND)	<50 (ND)	<50 (ND)	230 x	270 x	<50 (ND)	<50 (ND)	150 x	---	270 x	<50 (ND)	---	<50 (ND)
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (NP)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	---	<250 (ND)	<250 (ND)	---	<250 (ND)

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.
— = 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.
Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

(Y) indicates analyte not detected, but detection limit is above screening concentration.
j = The result is below normal reporting limits. The value reported is an estimate.
x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B28	B29	TP03	TP05	TP06	B30	B31	B32	B33
Sample ID		B16/15	B17-10	B18-SWI-12	B19-SWI-7	B20/10	B21-SWI-6	B22-SWI-7	B23-SWI-8.5	B24-SWI-7	B25/10	B26-SWI-6	B28/10.5	B29/13.5	TP03/9.5	TP05/9	TP06-SWI-12.75	B30/5.5	B31/4	B32/7	B33/9.5
Date Sampled		4/3/19	4/2/19	4/2/19	4/2/19	4/3/19	4/2/19	4/2/19	4/2/19	4/2/19	4/3/19	4/2/19	4/3/19	4/3/19	4/23/19	4/23/19	4/24/19	6/26/19	6/25/19	6/25/19	6/26/19
Depth Sampled (feet)		15	10	12	7	10	6	7	8.5	7	10	6	10.5	13.5	9.5	9	12.75	5.5	4	7	9.5
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		South of former excavation	East of former excavation	West of former excavation	East side of barn	Northwest of former excavation, west side of barn	North of barn, south of greenhouse	Northwest of greenhouse	North of greenhouse	Northeast of greenhouse	North of former excavation	Northeast of B19	South of B16	West of B18	Southwest Field	West End of Barn	SW Corner of House	50' SW of Former UST Excavation	155' NW of Former UST Excavation	200' NW of Former UST Excavation	310' N/NW of Former UST Excavation
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg	mg/Kg	mg/Kg	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents																					
Benzene	c, v	1.5	<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)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	c, v	18	<0.02 (ND)	<0.02 (ND)	0.072	---	<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)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)
MTBE (methyl t-butyl ether)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
iso-Propylbenzene (cumene)	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	nc, v	46	<0.02 (ND)	<0.02 (ND)	0.17	---	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	---	0.031	---	---	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.033	0.025
1,2,4-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,3,5-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Xylenes	nc, v	110	<0.06 (ND)	<0.06 (ND)	0.31	---	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	---	<0.06 (ND)	---	---	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)
Metals																					
Lead	NA, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Semivolatile Organic Constituents																					
Polycyclic Aromatic Hydrocarbons																					
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	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Total Petroleum Hydrocarbons																					
GRO	nc, v	1400	<5 (ND)	<5 (ND)	54	16	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	100	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)
DRO	nc, v	150 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	---	---	---	---
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	---	---	---	---

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.
— = 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.
Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

(Y) indicates analyte not detected, but detection limit is above screening concentration.
j = The result is below normal reporting limits. The value reported is an estimate.
x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		B34	B35	MW01	MW02	MW03	MW04	EX02-GS31	EX02-GS32	EX02-GS33	EX02-GS34	EX02-GS38	EX02-GS39	EX02-GS40	EX02-GS41	EX02-GS42	EX02-GS43	EX02-GS44	EX02-GS45	EX02-GS46	EX02-GS47
Sample ID		B34/4	B35/20	MW01-SWI-7.5	MW02-SWI-6	MW03-SWI-12	MW04-SWI-9.5	EX02-GS31-ENW-9.5-SWI	EX02-GS32-ENW-6	EX02-GS33-EW-9.5-SWI	EX02-GS34-EW-6	EX02-GS38-CNW-8-SWI	EX02-GS39-CNW-5.5	EX02-GS40-EW-6	EX02-GS41-EW-9.5-SWI	EX02-GS42-EF-11.5	EX02-GS43-ESW-6	EX02-GS44-ESW-9.5-SWI	EX02-GS45-CSW-6	EX02-GS46-CSW-9-SWI	EX02-GS47-CF-11
Date Sampled		8/2/19	8/2/19	6/25/19	6/24/19	6/24/19	6/25/19	12/10/19	12/10/19	12/10/19	12/10/19	12/10/19	12/10/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19
Depth Sampled (feet)		4	20	7.5	6	12	9.5	9.5	6	9.5	6	8	5.5	6	9.5	11.5	6	9.5	6	9	11
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		290' N/NW of Former UST Excavation	188' NW of Former UST Excavation	North of the northwest corner of the barn	North of the northeast corner of the barn	Southeast corner of the barn near the northeast corner of the UST excavation	Near B16, south of the UST excavation	Eastern end of North Wall	Eastern end of North Wall	Northern portion of East Wall	Northern portion of East Wall	Central North Wall	Central North Wall	Southern portion of East wall	Southern portion East wall	Eastern Floor	Eastern end of South Wall	Eastern end of South Wall	Central South Wall	Central South Wall	Central Floor
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)	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)	mg/Kg (ppm)
Volatile Organic Constituents																					
Benzene	c, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.74	<0.02 (ND)	<0.02 (ND)	---	<0.02 (ND)	---	<0.02 (ND)	---	---	<0.02 (ND)	---	---	<0.2 (ND)	---	<0.02 (ND)	0.86
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)
Ethylbenzene	c, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	10	<0.02 (ND)	<0.02 (ND)	---	<0.02 (ND)	---	0.11	---	---	<0.02 (ND)	---	---	1.4	---	0.043	62
MTBE (methyl t-butyl ether)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)
Naphthalene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18
iso-Propylbenzene (cumene)	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9
Toluene	nc, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	21	<0.02 (ND)	<0.02 (ND)	---	<0.02 (ND)	---	0.031	---	---	<0.02 (ND)	---	---	1.9	---	0.027	39
1,2,4-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	170
1,3,5-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52
Xylenes	nc, v	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	<0.06 (ND)	68 ve	<0.06 (ND)	<0.06 (ND)	---	<0.06 (ND)	---	0.20	---	---	<0.06 (ND)	---	---	7.5	---	0.13	357
Metals																					
Lead	NA, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Semivolatile Organic Constituents																					
Polycyclic Aromatic Hydrocarbons																					
Acenaphthene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.13
Anthracene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.082
Benz[a]anthracene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.030
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.021
Benzo[b]fluoranthene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)
Benzo[k]fluoranthene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)
Chrysene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.012
Dibenz[a,h]anthracene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)
Fluoranthene	nc, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.040
Fluorene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.20
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)
Pyrene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.074
Total Petroleum Hydrocarbons																					
GRO	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	720	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	7.5	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	230	<5 (ND)	7.1	6200
DRO	nc, v	---	---	---	---	---	---	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	94 x	<50 (ND)	<50 (ND)	1800
RRO	nc, nv	---	---	---	---	---	---	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)

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.
— = 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.
Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

(Y) indicates analyte not detected, but detection limit is above screening concentration.
j = The result is below normal reporting limits. The value reported is an estimate.
x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID	EX02-GS48	EX02-GS49	EX02-GS50	EX02-GS51	EX02-GS52	EX02-GS53	EX02-GS54	EX02	EX03-GS01	EX03GS02	EX03-GS03	EX03-GS04	EX03-GS05	EX03-GS06	EX03-GS07	EX03-GS08	EX03-GS09	EX03-GS10
Sample ID	EX02-GS48-WW-4	EX02-GS49-WW-6.5-SW1	EX02-GS50-WSW-5	EX02-GS51-WSW-7-SW1	EX02-GS52-WNW-4	EX02-GS53-WNW-5.5-SW1	EX02-GS54-WF-9	EX02-Overburden-Comp	GS01-WW-10	GS02-WW-16	GS03-EW-10	GS04-EW-17	GS05-EW2-17	GS06-EW2-10	GS07-EW3-17	GS08-EW3-10	GS09-NWW-17	GS10-NWW-10
Date Sampled	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/11/19	12/10/19	8/13/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20
Depth Sampled (feet)	4	6.5	5	7	4	5.5	9	Comp	10	16	10	17	17	10	17	10	17	10
Sampled By	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location	West Wall	West Wall	Western end of South Wall	Western end of South Wall	Western end of North Wall	Western end of North Wall	West Floor	Composite of overburden soil	EXC03, Northernmost end of West wall		EXC03, Northernmost end of East wall		EXC03, Northern end of East wall		EXC03, North-Central East wall		EXC03, West Wall (SE corner of barn)	
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)	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	---	<0.02 (ND)	---	0.071 j	---	<0.02 (ND)	---	---	---	---	---	---	---	---	---	0.069	---
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)	---
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)	---
Ethylbenzene	c, v	---	0.11	---	0.75	---	<0.02 (ND)	---	---	---	---	---	---	---	---	---	15	---
MTBE (methyl t-butyl ether)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.05 (ND)	---
Naphthalene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17	---
iso-Propylbenzene (cumene)	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.3	---
Toluene	nc, v	---	0.093	---	0.91	---	<0.02 (ND)	---	---	---	---	---	---	---	---	---	6.3	---
1,2,4-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	68	---
1,3,5-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---
Xylenes	nc, v	---	0.72	---	4.6	---	0.095	---	---	---	---	---	---	---	---	---	84	---
Metals																		
Lead	NA, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.7	---
Semivolatile Organic Constituents																		
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 j	---
Anthracene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)	---
Benz[a]anthracene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.011	---
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.012	---
Benzo[b]fluoranthene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.016	---
Benzo[k]fluoranthene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)	---
Chrysene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.013	---
Dibenz[a,h]anthracene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)	---
Fluoranthene	nc, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.019	---
Fluorene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 j	---
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.01 (ND)	---
Pyrene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.021	---
Total Petroleum Hydrocarbons																		
GRO	nc, v	<5 (ND)	9.9	<5 (ND)	67	<5 (ND)	<5 (ND)	45	<5 (ND)	1100	58	< 5 (ND)	< 5 (ND)	< 5 (ND)	< 5 (ND)	< 5 (ND)	1600	340
DRO	nc, v	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	310 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	300 x	87 x
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)

Notes:
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c = carcinogenic
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nv = nonvolatile
GRO = gasoline-range organics.
DRO = diesel-range organics.
RRO = residual-range organics.
Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

¹ Lowest Risk-Based Concentration for soil (screening level).
(Y) indicates analyte not detected, but detection limit is above screening concentration.
j = The result is below normal reporting limits. The value reported is an estimate.
x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		EX03-GS11	EX03-GS12	EX03-GS13	EX03-GS14	EX03-GS15	EX03-GS16	EX03-GS17	EX03-GS18	EX03-GS19	EX03-GS20	EX03-GS21	EX03-GS22
Sample ID		GS11-EW4-18	GS12-EW4-12	GS13-EW5-19	GS14-EW5-13	GS15-SW-18	GS16-SW-12	GS17-NW-7	GS18-NW-12.5	GS19-EW-7	GS20-EW-12.5	GS21-SW-9	GS22-SW-18
Date Sampled		8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/17/20	8/18/20	8/18/20
Depth Sampled (feet)		18	12	19	13	18	12	7	12.5	7	12.5	9	18
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		EXC03, South-Central East wall		EXC03, Southern end of East wall		EXC03, Eastern end of South wall		EXC03, North wall		EXC03, East wall		EXC03, South wall	
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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)
Volatile Organic Constituents													
Benzene	c, v	---	---	---	---	---	---	---	0.94	---	0.21	---	---
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	---	<0.05 (ND)	---	<0.05 (ND)	---	---
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	---	<0.05 (ND)	---	<0.05 (ND)	---	---
Ethylbenzene	c, v	---	---	---	---	---	---	---	22	---	23	---	---
MTBE (methyl t-butyl ether)	c, v	---	---	---	---	---	---	---	<0.05 (ND)	---	<0.05 (ND)	---	---
Naphthalene	c, v	---	---	---	---	---	---	---	25	---	16	---	---
iso-Propylbenzene (cumene)	nc, v	---	---	---	---	---	---	---	7	---	3.7	---	---
Toluene	nc, v	---	---	---	---	---	---	---	20	---	18	---	---
1,2,4-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	100	---	91	---	---
1,3,5-Trimethylbenzene	nc, v	---	---	---	---	---	---	---	28	---	26	---	---
Xylenes	nc, v	---	---	---	---	---	---	---	141	---	116	---	---
Metals													
Lead	NA, nv	---	---	---	---	---	---	---	---	---	4.02	---	---
Semivolatile Organic Constituents													
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	nc, v	---	---	---	---	---	---	---	0.13	---	---	---	---
Anthracene	nc, v	---	---	---	---	---	---	---	0.054	---	---	---	---
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	c, nv	---	---	---	---	---	---	---	<0.05 (ND)	---	---	---	---
Dibenz[a,h]anthracene	c, nv	---	---	---	---	---	---	---	<0.05 (ND)	---	---	---	---
Fluoranthene	nc, nv	---	---	---	---	---	---	---	<0.05 (ND)	---	---	---	---
Fluorene	nc, v	---	---	---	---	---	---	---	0.16	---	---	---	---
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	---	---	---	<0.05 (ND)	---	---	---	---
Pyrene	nc, v	---	---	---	---	---	---	---	0.051	---	---	---	---
Total Petroleum Hydrocarbons													
GRO	nc, v	< 5 (ND)	< 5 (ND)	< 5 (ND)	< 5 (ND)	< 5 (ND)	< 5 (ND)	1300	2500	440	2700	<5 (ND)	<5 (ND)
DRO	nc, v	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	430 x	1200 x	220 x	410 x	<50 (ND)	<50 (ND)
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)

Notes:

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v = volatile

nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

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

j = The result is below normal reporting limits. The value reported is an estimate.

x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

BKG = constituent was not detected above default background concentrations in soil

Table 1 - Summary of Analytical Data, Soil

Location ID		EX03-GS23	EX03-GS24	SP01		SP02		Maximum Soil Concentration (remaining soil)	Soil Matrix Cleanup Level (Level I)	ODEQs Screening-Level SLRBCs ¹ (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQs Screening-Level SLRBCs (Soil)	
Sample ID		GS23-WW-16	GS24-WW-15	SP01-COMP-S-200818	SP01-COMP-E-200818	SP01-COMP-W-200818	SP02-COMP-200818							
Date Sampled		8/18/20	8/18/20	8/18/20	8/18/20	8/18/20	8/18/20							
Depth Sampled (feet)		16	15	--	--	--	--							
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW							
Location		EXC03, West wall (native soil below backfill from EX01)		EXC03, Composites of overburden soil							Portland Basin		TRUE OR Y FALSE OR N	
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)					
Volatile Organic Constituents														
Benzene	c, v	---	---	---	---	---	---	9.7	NE	0.023	---	0.0093	Y	
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	<0.5 (ND)	NE	0.00012	---	0.00081	(Y)	
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	<0.5 (ND)	NE	0.0028	---	0.0014	(Y)	
Ethylbenzene	c, v	---	---	---	---	---	---	170	NE	0.22	---	0.16	Y	
MTBE (methyl t-butyl ether)	c, v	---	---	---	---	---	---	<0.5 (ND)	NE	0.11	---	0.092	(Y)	
Naphthalene	c, v	---	---	---	---	---	---	48	NE	0.077	---	0.087	Y	
iso-Propylbenzene (cumene)	nc, v	---	---	---	---	---	---	20	NE	96	---	85.2	N	
Toluene	nc, v	---	---	---	---	---	---	290	NE	83	---	200	Y	
1,2,4-Trimethylbenzene	nc, v	---	---	---	---	---	---	520	NE	10	---	16	Y	
1,3,5-Trimethylbenzene	nc, v	---	---	---	---	---	---	160	NE	11	---	92	Y	
Xylenes	nc, v	---	---	---	---	---	---	1130	NE	23	---	25	Y	
Metals														
Lead	NA, nv	---	---	---	---	---	---	4.14	NE	30	79	33.75	N	
Semivolatile Organic Constituents														
Polycyclic Aromatic Hydrocarbons														
Acenaphthene	nc, v	---	---	---	---	---	---	0.16	NE	770	---	29	N	
Anthracene	nc, v	---	---	---	---	---	---	0.082	NE	8200	---	29	N	
Benz[a]anthracene	c, v	---	---	---	---	---	---	0.030	NE	1.1	---	0.15	N	
Benzo[a]pyrene (BaP equivalents)	c, nv	---	---	---	---	---	---	0.023	NE	0.11	---	0.015	N	
Benzo[b]fluoranthene	c, nv	---	---	---	---	---	---	0.016	NE	1.1	---	0.15	N	
Benzo[k]fluoranthene	c, nv	---	---	---	---	---	---	<0.05 (ND)	NE	11	---	1.1	N	
Chrysene	c, nv	---	---	---	---	---	---	0.013	NE	110	---	14	N	
Dibenz[a,h]anthracene	c, nv	---	---	---	---	---	---	<0.05 (ND)	NE	0.11	---	0.015	N	
Fluoranthene	nc, nv	---	---	---	---	---	---	0.040	NE	2400	---	29	N	
Fluorene	nc, v	---	---	---	---	---	---	0.2	NE	770	---	29	N	
Indeno[1,2,3-cd]pyrene	c, nv	---	---	---	---	---	---	<0.05 (ND)	NE	1.1	---	0.15	N	
Pyrene	nc, v	---	---	---	---	---	---	0.074	NE	1800	---	1700	N	
Total Petroleum Hydrocarbons														
GRO	nc, v	12	2400	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	15000	40	31	---	---	Y	
DRO	nc, v	<50 (ND)	480 x	<50 (ND)	<50 (ND)	<50 (ND)	<50 (ND)	3000	100	1100	---	---	Y	
RRO	nc, nv	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	<250 (ND)	250		2800	---	---	N	

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.

— = 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.

Bolded/Shaded concentrations exceed either Soil Matrix Cleanup Standards or screening level risk-based concentrations and background concentrations, as applicable.

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

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

j = The result is below normal reporting limits. The value reported is an estimate.

x =The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

BKG = constituent was not detected above default background concentrations in soil

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		MW01													
Sample ID		MW01/GW	MW01/GW-191003	MW01/GW-200109	MW01/GW-200414	MW01/GW-200715	MW01/GW-201007	MW01/GW-210112	MW01-GW-210416	MW01-GW-210714	MW01-GW-211027	MW01-GW-220117	MW01-GW-220408	MW01-GW-220808	MW01-221114-GW
Date Sampled		6/28/19	10/3/19	1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/17/22	4/8/22	8/8/22	11/14/22
Depth To Water (DTW, feet)		10.84	12.57	7.73	8.94	10.85	13.16	4.47	8.65	12.7	11.7	4.40			8.00
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		Downgradient of former USTs, northwest													
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)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)
Volatile Organic Constituents															
Benzene	c, v	560	750	2.1	94	83	180	<0.35 (ND)	73	65	200	<0.35 (ND)	10	44	6.3
Bromodichloromethane	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bromoform	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Bromomethane	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorobenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloroform	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,4-Dichlorobenzene	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethane	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dichloroethylether	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dichloromethane	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	---
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<10 (ND)
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	4.8	<0.2 (ND)	<4 (ND)	<4 (ND)	<2 (ND)
Ethylbenzene	c, v	1900	1700	14	53	360	1100	<1 (ND)	200	1000	1300	1.5	32	320	72
MTBE (methyl t-butyl ether)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<10 (ND)
Naphthalene	c, v	300	210	6.3	50	77	170	<1 (ND)	76	190	240	6.2	<20 (ND)	48	16
iso-Propylbenzene (cumene)	nc, v	71	<100 (ND)	2.3	14	24	45	<1 (ND)	29	47	73	1.2	<20 (ND)	<20 (ND)	<10 (ND)
Tetrachloroethene (PCE)	c, v	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---
Toluene	nc, v	8100	2600	17	11	170 ve	700	<1 (ND)	27	410	1200	<1 (ND)	<20 (ND)	180	<10 (ND)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	nc, v	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	nc, v	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
1,1,2-Trichloroethane	c, v	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
Trichloroethene	NA, v	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
2,4,6-Trichlorophenol	c, nv	---	---	---	---	170 ve	---	---	---	---	---	---	---	---	---
1,2,4-Trimethylbenzene	nc, v	1600	1300	120	110	480	1000	5.9	240	1200	2000	79	120	330	230
1,3,5-Trimethylbenzene	nc, v	440	320	43	27	55	210	2.2	60	250	510	23	<20 (ND)	64	48
Vinyl chloride	c, v	---	---	---	---	---	---	---	60	---	---	---	---	---	---
Xylenes	nc, v	11100	8900	244	229	890	4300	6.4	690	5000	7300	49	170	1350	330
Total Petroleum Hydrocarbons															
GRO	nc, v	58000	45000	2100	2600	8200	18000	<100 (ND)	6000	6400	48000	1800	1500	11000	3100

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
Bolded and shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

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

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		MW02														MW03					
		MW02/GW	MW02/GW-191003	MW02/GW-200109	MW02/GW-200414	MW02-GW-200715	MW02/GW-201007	MW02-GW-210112	MW02-GW-210416	MW02-GW-210714	MW02-GW-211027	MW02-GW-220117	MW02-GW-220408	MW02-GW-220808	MW02-221114-GW	MW03/GW	MW03/GW-191003	MW03	MW03	MW03	MW03
Sample ID																					
Date Sampled		6/28/19	10/3/19	1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/19/22	4/8/22	8/8/22	11/14/22	6/28/19	10/3/19	1/9/20	4/14/20	7/15/20	--
Depth To Water (DTW, feet)		9.62	11.40	6.59	7.20	9.30	12.03	4.30	7.34	11.63	11.22	2.39			6.14	17.57	19.77	13.72	15.42	15.42	--
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	--
Location		Downgradient of former USTs, northeast														Immediately downgradient of souce area removal					
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)	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)	µg/L (ppb)	
Volatile Organic Constituents																					
Benzene	c, v	11	130	58	4	0.9	21	0.51	<0.35 (ND)	<0.35 (ND)	18	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	1.4	1700	870	Not Sampled	Not Sampled	Not Sampled	Removed August 2020
Bromodichloromethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Bromoform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Bromomethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Chlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Chloroform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Chloromethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
1,4-Dichlorobenzene	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
1,1-Dichloroethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
1,1-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Dichloroethylether	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Dichloromethane	c, v	---	---	---	---	---	---	---	<1 (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)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1000 (ND)				
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<5 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.5	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<1 (ND)	<1000 (ND)				
Ethylbenzene	c, v	56	270	110	2.3	1.7	94	2.0	<1 (ND)	<1 (ND)	22	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	2400	2100				
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)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1000 (ND)				
Naphthalene	c, v	9.6	39	17	<1 (ND)	<1 (ND)	7.4	<1 (ND)	<1 (ND)	<1 (ND)	4.5	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	350	<1000 (ND)				
iso-Propylbenzene (cumene)	nc, v	5.1	24	15	1.1	<1 (ND)	15	<1 (ND)	<1 (ND)	<1 (ND)	5.9	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	76	<1000 (ND)				
Tetrachloroethene (PCE)	c, v	---	---	---	---	<1 (ND)	---	<1 (ND)	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
Toluene	nc, v	39	56	85	<1 (ND)	<1 (ND)	5.1	<1 (ND)	<1 (ND)	<1 (ND)	12	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	20000	8900				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
1,1,1-Trichloroethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
1,1,2-Trichloroethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
Trichloroethene	NA, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
2,4,6-Trichlorophenol	c, nv	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---	---	---				
1,2,4-Trimethylbenzene	nc, v	71	270	120	4.7	3.4	15	1.1	<1 (ND)	<1 (ND)	30	<1 (ND)	<1 (ND)	<1 (ND)	2.8	1800	2100				
1,3,5-Trimethylbenzene	nc, v	19	8.6	13	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.6	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	470	<1000 (ND)				
Vinyl chloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---				
Xylenes	nc, v	231	346	301	5.2	< 3.2 (ND)	22.7	<3 (ND)	<3 (ND)	<3 (ND)	59	<3 (ND)	<3 (ND)	<2 (ND)	1.4	14200	11900				
Total Petroleum Hydrocarbons																					
GRO	nc, v	1100	4000	3500	190	150	940	<100 (ND)	<100 (ND)	<100 (ND)	770	<100 (ND)	<100 (ND)	<100 (ND)	140	98000	78000	Not Sampled	Not Sampled	Not Sampled	Not Sampled

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
Bolded and shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

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

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		MW04													
Sample ID		MW04/GW	MW04/GW-191003	MW04/GW-200109	MW04/GW-200414	MW04/GW-200715	MW04/GW-201007	MW04-GW-210112	MW04-GW-210416	MW04-GW-210714	MW04-GW-211027	MW04-GW-220117	MW04-GW-220408	MW04-GW-220808	MW04-221114-GW
Date Sampled		6/28/19	10/3/19	1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/19/22	4/8/22	8/8/22	11/14/22
Depth To Water (DTW, feet)		18.00	18.11	11.98	14.97	17.79	18.46	9.97	15.66	9.38	16.84	10.51			14.20
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		Upgradient of former USTs, south													
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)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)
Volatile Organic Constituents															
Benzene	c, v	71	35	<0.35 (ND)	<0.35 (ND)	<8.6 (ND)	42	<0.35 (ND)	<0.35 (ND)	4.2	0.6	<0.35 (ND)	<0.35 (ND)	1.7	<0.35 (ND)
Bromodichloromethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Bromoform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Bromomethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloroform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloromethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,4-Dichlorobenzene	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,1-Dichloroethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,1-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Dichloroethylether	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Dichloromethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<100 (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)
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)
Ethylbenzene	c, v	1100	<100 (ND)	<1 (ND)	<1 (ND)	1	31	<1 (ND)	<1 (ND)	<1 (ND)	1.6	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
MTBE (methyl t-butyl ether)	c, v	<1 (ND)	<100 (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)
Naphthalene	c, v	190	<100 (ND)	<1 (ND)	<1 (ND)	<2.5 (ND)	10	<1 (ND)	<1 (ND)	1.7	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
iso-Propylbenzene (cumene)	nc, v	58	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	6.2	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Tetrachloroethene (PCE)	c, v	---	<100 (ND)	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
Toluene	nc, v	3200	<100 (ND)	<1 (ND)	<1 (ND)	<2.3 (ND)	93	<1 (ND)	<1 (ND)	2.1	2.3	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
1,1,1-Trichloroethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
1,1,2-Trichloroethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
Trichloroethene	NA, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
2,4,6-Trichlorophenol	c, nv	---	---	---	---	---	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	---
1,2,4-Trimethylbenzene	nc, v	1500	170	3.8	1.7	4.2	100	<1 (ND)	<1 (ND)	<1 (ND)	8	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
1,3,5-Trimethylbenzene	nc, v	430	<100 (ND)	2.2	<1 (ND)	1.6	33	<1 (ND)	<1 (ND)	<1 (ND)	2.8	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)
Vinyl chloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Xylenes	nc, v	6900	330	5.9	<3 (ND)	14.2	280	<3 (ND)	<3 (ND)	7.8	13.4	<3 (ND)	<3 (ND)	3.3	<3 (ND)
Total Petroleum Hydrocarbons															
GRO	nc, v	31000	3300	180	<100 (ND)	220	2200	<100 (ND)	<100 (ND)	180	350	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
Bolded and shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

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

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		MW05												MW06									
Sample ID		MW05/GW-200109	MW05/GW-200414	MW05/GW-200715	MW05/GW-201007	MW05-GW-210112	MW05-GW-210416	MW05-GW-210714	MW05-GW-211027	MW05-GW-220117	MW05-GW-220408	MW05-GW-22088	MW05-221114-GW	MW06/GW-201007	MW06-GW-210112	MW06-GW-210416	MW06-GW-210714	MW06-GW-211027	MW06-GW-220117	MW06-GW-220408	MW06-GW-220808	MW06-221114-GW	
Date Sampled		1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/19/22	4/8/22	8/8/22	11/14/22	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/17/22	4/8/22	8/8/22	11/14/22	
Depth To Water (DTW, feet)		5.12	5.69	6.93	8.61	3.19	6.20	8.59	8.08	4.19			6.31	11.28	2.85	6.57	11.05	10.43	2.51			6.08	
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	
Location		NW of Barn												East of barn, north of excavation									
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)	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)	µg/L (ppb)	µg/L (ppb)		
Volatile Organic Constituents																							
Benzene	c, v	78	<0.35 (ND)	<0.35 (ND)	0.95	0.56	<0.35 (ND)	0.55	88	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	18	180	51	0.87	69	150	23	8.1	36	100	
Bromodichloromethane	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Bromoform	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Bromomethane	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Carbon tetrachloride	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chlorobenzene	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chloroform	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Chloromethane	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,4-Dichlorobenzene	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,1-Dichloroethane	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
1,1-Dichloroethene	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Dichloroethylether	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Dichloromethane	c, v	---	---	---	---	---	<1 (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)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<10 (ND)	
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	2.2	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<1 (ND)	<20 (ND)	<1 (ND)	<20 (ND)	<4 (ND)	<4 (ND)	<4 (ND)	<4 (ND)	<2 (ND)	
Ethylbenzene	c, v	100	1.2	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	64	<1 (ND)	<1 (ND)	<1 (ND)	9.5	240	180	14	370	450	230	73	220	430	
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)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<1 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<20 (ND)	<10 (ND)	
Naphthalene	c, v	11	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	10	<1 (ND)	<1 (ND)	<1 (ND)	6.4	39	40	17	72	89	56	36	48	82	
iso-Propylbenzene (cumene)	nc, v	5.5	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	9.2	<1 (ND)	<1 (ND)	<1 (ND)	3.6	16	<20 (ND)	5.2	24	32	25	<20 (ND)	<20 (ND)	34	
Tetrachloroethene (PCE)	c, v	---	---	<1 (ND)	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	<1 (ND)	---	---	---	---	---	---	---	---	---	
Toluene	nc, v	17	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	46	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	950	140	<1 (ND)	100	220	44	<20 (ND)	26	380	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	nc, v	---	---	<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)	---	---	---	---	---	---	---	---	---	
1,1,2-Trichloroethane	c, v	---	---	<1 (ND)	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	<1 (ND)	---	---	---	---	---	---	---	---	---	
Trichloroethene	NA, v	---	---	<1 (ND)	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	<1 (ND)	---	---	---	---	---	---	---	---	---	
Trichlorofluoromethane (Freon 11)	nc, v	---	---	<1 (ND)	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	<1 (ND)	---	---	---	---	---	---	---	---	---	
2,4,6-Trichlorophenol	c, nv	---	---	<1 (ND)	---	---	<1 (ND)	---	---	---	<1 (ND)	<1 (ND)	<1 (ND)	---	---	---	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	nc, v	58	4.1	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	42	3.8	<1 (ND)	<1 (ND)	16	340	410	92	470	790	800	320	380	930	
1,3,5-Trimethylbenzene	nc, v	8.1	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	6.5	<1 (ND)	<1 (ND)	<1 (ND)	1.2	100	110	33	140	190	210	60	69	160	
Vinyl chloride	c, v	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Xylenes	nc, v	104	2.6	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	133	5.6	<3 (ND)	<2 (ND)	12.6	1770	1510	67	870	1450	1320	359	660	1810	
Total Petroleum Hydrocarbons																							
GRO	nc, v	1500	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	1400	<100 (ND)	<100 (ND)	<100 (ND)	680	9100	8500	1300	7700	14000	9700	2700	8200	15000	

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.

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

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

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		Quality Control													
Sample ID		MWFD/GW- (MW04 Field Duplicate)	MWFD/GW- 191003 (MW03 Field Duplicate)	MWFD/GW- 200109 (MW01 Field Duplicate)	MWFD/GW- 200414 (MW02 Field Duplicate)	MWFD/GW- 200715 (MW04 Field Duplicate)	MWFD/GW=201 007 (MW06 Field Duplicate)	MWFD-GW- 210112 (MW01 Field Duplicate)	MWFD-GW- 210416	MWFD-GW- 210714	MWFD-GW- 211027 (MW04 Field Duplicate)	MWFD-GW- 220117	MWFD-GW- 220408	MWFD-GW- 220808	MW-FD-221114- GW
Date Sampled		6/28/19	10/3/19	1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/19/22	4/8/22	8/8/22	10/28/22
Depth To Water (DTW, feet)		18.00	19.77	7.73	7.20	17.79	11.28	---	---	---	8.25	4.19			8.00
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		MW04	MW03	MW01	MW02	MW04	MW06	MW01	MW02	MW06	MW04	MW05	MW02	MW01	MW01
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)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)
Volatile Organic Constituents															
Benzene	c, v	67	770	2.3	4.0	9.5	180	<0.35 (ND)	<0.35 (ND)	72	2.4	0.36	<0.35 (ND)	42	6.1
Bromodichloromethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Bromoform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Bromomethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloroform	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Chloromethane	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,4-Dichlorobenzene	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,1-Dichloroethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
1,1-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Dichloroethylether	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Dichloromethane	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
EDB (1,2-dibromoethane)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<2 (ND)
Ethylbenzene	c, v	1100	2000	17	2.3	1.1	230	<1 (ND)	<1 (ND)	370	1.4	<1 (ND)	<1 (ND)	320	70
MTBE (methyl t-butyl ether)	c, v	<1 (ND)	<100 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<10 (ND)
Naphthalene	c, v	180	230	7.8	<1 (ND)	<2.1 (ND)	36	<1 (ND)	<1 (ND)	75	<1 (ND)	<1 (ND)	<1 (ND)	54	18
iso-Propylbenzene (cumene)	nc, v	56	<100 (ND)	2.8	1.0	<1 (ND)	16	<1 (ND)	<1 (ND)	24	<1 (ND)	<1 (ND)	<1 (ND)	17	<10 (ND)
Tetrachloroethene (PCE)	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Toluene	nc, v	3000	8600	18	<1 (ND)	3.4	930	<1 (ND)	<1 (ND)	100	2.4	<1 (ND)	<1 (ND)	170	<10 (ND)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	nc, v	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
1,1,1-Trichloroethane	nc, v	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
1,1,2-Trichloroethane	c, v	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
Trichloroethene	NA, v	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
2,4,6-Trichlorophenol	c, nv	---	---	---	---	4.7	---	---	<1 (ND)	---	---	---	---	---	---
1,2,4-Trimethylbenzene	nc, v	1500	1900	150	5.1	4.7	330	5.8	<1 (ND)	500	7.8	3.9	<1 (ND)	340	240
1,3,5-Trimethylbenzene	nc, v	410	490	53	<1 (ND)	1.8	100	2.2	<1 (ND)	150	2.8	d	<1 (ND)	59	52
Vinyl chloride	c, v	---	---	---	---	---	---	---	<1 (ND)	---	---	---	---	---	---
Xylenes	nc, v	6700	11200	290	5.3	15.6	1750	6.3	<3 (ND)	890	12.5	5.5	<3 (ND)	1310	328
Total Petroleum Hydrocarbons															
GRO	nc, v	30000	86000	2000	160	220	9900	110	<100 (ND)	8200	320	<100 (ND)	<100 (ND)	9600	3800

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
Bolded and shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

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

Table 3 - Summary of Analytical Data, Ground Water Monitoring Wells

Location ID		Quality Control												Maximum Ground Water Concentration (Last Four Monitoring Events)	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) ¹	Exceeds ODEQ SLRBCs?
Sample ID		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank-220408	Trip Blank-220808	Trip Blank-221114			
Date Sampled		1/9/20	4/14/20	7/15/20	10/7/20	1/12/21	4/16/21	7/14/21	10/27/21	1/17/22	4/8/22	8/8/22	11/14/22			
Depth To Water (DTW, feet)		---	---	---	---	---	---	---	---	---	---	---	---			
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW			
Location		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank		Y or N	
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)	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)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<100 (ND)	0.46	Y
Bromodichloromethane	c, v	---	---	---	---	---	---	---	---	---	---	<0.5 (ND)	---	---	0.13	(Y)
Bromoform	c, v	---	---	---	---	---	---	---	---	---	---	<5 (ND)	---	---	3.3	(Y)
Bromomethane	nc, v	---	---	---	---	---	---	---	---	---	---	<5 (ND)	---	---	7.5	(Y)
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	---	---	---	<0.5 (ND)	---	---	0.46	(Y)
Chlorobenzene	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	77	(Y)
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	---	---	---	---	---	---	---	<0.5 (ND)	---	---	0.17	(Y)
Chloroethane (ethyl chloride)	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	21000	(Y)
Chloroform	c, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	0.22	(Y)
Chloromethane	nc, v	---	---	---	---	---	---	---	---	---	---	<10 (ND)	---	---	190	(Y)
1,2-Dichlorobenzene	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	300	(Y)
1,4-Dichlorobenzene	c, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	0.48	(Y)
1,1-Dichloroethane	c, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	2.8	(Y)
1,1-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	280	(Y)
cis-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	36	(Y)
trans-1,2-Dichloroethene	nc, v	---	---	---	---	---	---	---	---	---	---	<1 (ND)	---	---	360	(Y)
Dichloroethylether	c, v	---	---	---	---	---	---	---	---	---	---	---	---	---	0.014	(Y)
Dichloromethane	c, v	---	---	---	---	---	---	---	---	---	---	<5 (ND)	---	---	11	(Y)
EDB (1,2-dibromoethane)	c, 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)	<20 (ND)	0.0075	(Y)
EDC (1,2-dichloroethane)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<4 (ND)	0.17	(Y)
Ethylbenzene	c, 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)	<430 (ND)	1.5	Y
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)	<1 (ND)	<1 (ND)	<1 (ND)	<20 (ND)	14	(Y)
Naphthalene	c, 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)	82	0.17	Y
iso-Propylbenzene (cumene)	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)	34	440	N
Tetrachloroethene (PCE)	c, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	12	N
Toluene	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)	380	1100	N
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 11)	nc, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	55000	N
1,1,1-Trichloroethane	nc, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	8000	N
1,1,2-Trichloroethane	c, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	0.28	(Y)
Trichloroethene	NA, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	0.49	(Y)
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	1100	N
2,4,6-Trichlorophenol	c, nv	---	---	---	---	---	---	---	---	---	<1 (ND)	<1 (ND)	---	<1 (ND)	4.4	N
1,2,4-Trimethylbenzene	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)	930	54	Y
1,3,5-Trimethylbenzene	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)	210	59	Y
Vinyl chloride	c, v	---	---	---	---	---	---	---	---	---	---	<0.02 (ND)	---	---	0.027	(Y)
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	1810	190	Y
Total Petroleum Hydrocarbons																
GRO	nc, v	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	---	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	15000	110	Y

Notes:
ug/L = micrograms per Liter or parts per billion (ppb).
<# (ND) = not detected at or above the laboratory method reporting limit shown.
NE = not established.
— = not analyzed or not applicable.
c = carcinogenic
nc = noncarcinogenic
v = volatile
nv = nonvolatile
GRO = gasoline-range organics.
Bolded and shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

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

Table 3 - Summary of Analytical Data, Sub-Slab Vapor and Soil Gas

		SG01				SG02						SG03					
Sample ID		SG01-191003-5	SG01-200917-5	SG01-230418-5	SG01-230815-5	SG02-191003-5	SG02-200917-5	SG02-230418-5	SG02-5	SG02-230815-5		SG03-191003-5	SG03-200917-5	SG03-230418-5	SG03-5	SG03-230815-5	
Date Sampled		10/3/2019	9/17/2020	4/18/2023	8/15/2023	10/3/2019	9/17/2020	4/18/2023	5/12/2023	8/15/2023		10/3/2019	9/17/2020	4/18/2023	5/11/2023	8/15/2023	
Depth Sampled (feet)		5	5	5	5	5	5	5	5	5		5	5	5	5	5	
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW		ENW	ENW	ENW	ENW	ENW	
Location		North of workers' housing and east of former USTs				West of garage and east of former USTs						East of house and south of former USTs					
Constituent of Interest	Note	µg/m³			µg/m3	µg/m2	µg/m1	µg/m0	µg/m1	µg/m2	µg/m3	µg/m³					µg/m3
Volatile Organic Constituents (TO-15 except where noted)						(TO-17)						(TO-17)					
Benzene	c, v	<5.41 (ND)	8.20	<2.70 (ND)	3.52	3.82 J	5.12 J	1.18 J	---	---	2.42 J	6.25	7.79	<2.7 (ND)	---	---	2.95
Dibromoethane, 1,2-	c, v	<6.20 (ND)	<6.20 (ND)	<3.10 (ND)	<3.10 (ND)	<6.20 (ND)	<6.20 (ND)	<3.10 (ND)	---	---	<3.10 (ND)	<6.20 (ND)	<6.20 (ND)	<3.10 (ND)	---	---	<3.10 (ND)
Dichloroethane, 1,2-	c, v	<6.15 (ND)	<6.15 (ND)	<3.08 (ND)	<3.08 (ND)	<6.15 (ND)	<6.15 (ND)	<3.08 (ND)	---	---	<3.08 (ND)	<6.15 (ND)	<6.15 (ND)	<3.08 (ND)	---	---	<3.08 (ND)
Ethylbenzene	c, v	<7.64 (ND)	4.73 J	<3.82 (ND)	1.81 J	3.22 J	<7.64 (ND)	4.35	---	---	<3.82 (ND)	<7.64 (ND)	5.32 J	<3.82 (ND)	---	---	<3.82 (ND)
Methyl tert-Butyl Ether (MTBE)	c, v	<4.42 (ND)	<4.42 (ND)	<2.21 (ND)	<2.21 (ND)	<4.42 (ND)	<4.42 (ND)	<2.21 (ND)	---	---	<2.21 (ND)	<4.42 (ND)	<4.42 (ND)	<2.21 (ND)	---	---	<2.21 (ND)
Naphthalene	c, v	<3.28 (ND)	<3.28 (ND)	<1.64 (ND)	2.47	<3.28 (ND)	2.2 J	232.86	<1 (ND)	<1.4 (ND)	2.79	<3.28 (ND)	<3.28 (ND)	89.61	1.5	<1.4 (ND)	2.54
Isopropylbenzene (cumene)	nc, v	<4.98 (ND)	<4.98 (ND)	<2.49 (ND)	<2.49 (ND)	<4.98 (ND)	<4.98 (ND)	5.85	---	---	<2.49 (ND)	<4.98 (ND)	<4.98 (ND)	<2.49 (ND)	---	---	<2.49 (ND)
Toluene	nc, v	3.05 J	22.65	1.51 J	68.89	11.48	19.17	5.93	---	---	9.7	16.96	32.70	1.78 J	---	---	12.33
Trimethylbenzene, 1,2,4-	nc, v	20.00	25.23	<4.16 (ND)	5.54	11.59	8.18 J	7.00	---	---	3.22 J	10.54	13.38	<4.16 (ND)	---	---	2.57 J
Trimethylbenzene, 1,3,5-	nc, v	3.72 J	4.76 J	<4.23 (ND)	2.2 J	<8.45 (ND)	<8.45 (ND)	2.21 J	---	---	<4.23 (ND)	<8.45 (ND)	<8.45 (ND)	<4.23 (ND)	---	---	<4.23 (ND)
Xylenes	nc, v	5.91 J	28.72	2.50 J	8.56 J	15.94 J	12.85 J	14.55	---	---	7.54 J	4.81 J	28.89 J	1.65 J	---	---	6.02 J
Total Petroleum Hydrocarbons																	
Gasoline	nc, v	<1639 (ND)	2299.1	<569.73 (ND)	734.17	885 J	<1967.2 (ND)	2687.36	---	---	224.61 J	<1639 (ND)	<1967.2 (ND)	<569.73 (ND)	---	---	474.52 J
Leak Detection																	
2-Propanol		900.26	4767.6	32.61	57.25	26.58	224.1	87.28	<250 (ND)	21.04	2.04 J	3.61 J	<4.7 (ND)	26.28	37000 ve	3179.83	20.96

Notes:
ND = not detected at or above laboratory method reporting limits.
— = not analyzed or not applicable.
< = not detected above method reporting limit shown.
NE = not established.
ug/m³ = micrograms per cubic meter of air .
GRO = gasoline-range organics.
Bolded concentrations exceed screening level risk-based concentrations and
¹ Lowest Risk-Based Concentration for soil gas/sub-slab vapor (screening
(Y) indicates analyte not detected, but detection limit is above screening
concentration.
J = indicates the internal standard associated with the analyte is out of
control limits; the reported concentration is an estimate.

Grey shaded cells indicate data representative of conditions prior to final
remedial action and is not included in the maximum soil gas concentration
* Data appeared anomalous and is not considred in screening due.
Subsequent resampling was conducted.

Table 3 - Summary of Analytical Data, Sub-Slab Vapor and Soil Gas

		SG04						SUB01		SUB02		SUB03		SUB04	
Sample ID		SG04-191003-5	SG04-200917-5	SG04-230418-5	SG04-5		SG04-230815-5	SUB01-191004	SUB01-200915	SUB02-191004	SUB02-200915	SUB03-191004	SUB03-200915	SUB04-191004	SUB04-200915
Date Sampled		10/3/2019	9/17/2020	4/18/2023	5/11/2023		8/15/2023	10/4/2019	9/15/2020	10/4/2019	9/15/2020	10/4/2019	9/15/2020	10/4/2019	9/15/2020
Depth Sampled (feet)		5	5	5	5		5	NA	NA	NA	NA	NA	NA	NA	NA
Sampled By		ENW	ENW	ENW	ENW		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW
Location		South side of house						Apartment no. 7 of seasonal worker's housing - south end building		Apartment no. 6 of seasonal worker's housing - south-center of building		Apartment no. 4 of seasonal worker's housing - north-center of building		Apartment no. 3 of seasonal worker's housing - north end building	
Constituent of Interest	Note	µg/m³					µg/m3	µg/m³		µg/m³		µg/m³		µg/m³	
Volatile Organic Constituents (TO-15 except where noted)		(TO-17)													
Benzene	c, v	<5.41 (ND)	7.56	1.33 J	---	---	2.47 J	<5.41 (ND)	2.17 J	<5.41 (ND)	<5.41 (ND)	<5.41 (ND)	2.27 J	<5.41 (ND)	<5.41 (ND)
Dibromoethane, 1,2-	c, v	<6.20 (ND)	<6.20 (ND)	<3.10 (ND)	---	---	<3.10 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)	<6.20 (ND)
Dichloroethane, 1,2-	c, v	<6.15 (ND)	<6.15 (ND)	<3.08 (ND)	---	---	<3.08 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)	<6.15 (ND)
Ethylbenzene	c, v	<7.64 (ND)	37.49	<3.82 (ND)	---	---	<3.82 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)	<7.64 (ND)
Methyl tert-Butyl Ether (MTBE)	c, v	<4.42 (ND)	<4.42 (ND)	<2.21 (ND)	---	---	<2.21 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)	<4.42 (ND)
Naphthalene	c, v	<3.28 (ND)	111.5	95.9 *	<1 (ND)	<1.4 (ND)	2.62	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)	<3.28 (ND)
Isopropylbenzene (cumene)	nc, v	<4.98 (ND)	13.71	<2.49 (ND)	---	---	<2.49 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)	<4.98 (ND)
Toluene	nc, v	6.21 J	48.3	2.38 J	---	---	5.63	6.83	3.06 J	4.38 J	3.77 J	5.39 J	9.09	8.59	15.01
Trimethylbenzene, 1,2,4-	nc, v	7.47 J	68.08	<4.16 (ND)	---	---	2.29 J	6.11 J	<8.32 (ND)	4.25 J	<8.32 (ND)	3.51 J	<8.32 (ND)	17.03	228.86
Trimethylbenzene, 1,3,5-	nc, v	<8.45 (ND)	22.49	<4.23 (ND)	---	---	<4.23 (ND)	<8.45 (ND)	<8.45 (ND)	<8.45 (ND)	<8.45 (ND)	<8.45 (ND)	<8.45 (ND)	4.44 J	73.74
Xylenes	nc, v	7.45 J	125.45	1.60J	---	---	4.72 J	6.64 J	3.29 J	3.10 J	<15.14 (ND)	3.66 J	5.28 J	13.32 J	13.92 J
Total Petroleum Hydrocarbons															
Gasoline	nc, v	560 J	<1967.2 (ND)	267.37 J	---	---	302.55 J	545 J	<1967.2 (ND)	<1639 (ND)	<1967.2 (ND)	<1639 (ND)	<1967.2 (ND)	<1639 (ND)	4160.3
Leak Detection															
2-Propanol		<4.70 (ND)	2510.11	5578.36	<250 (ND)	<250 (ND)	1.76 J	55.79	<4.7 (ND)	<4.70 (ND)	23.16	<4.70 (ND)	<4.7 (ND)	58.09	824.72

Notes:
ND = not detected at or above laboratory method reporting limits.
— = not analyzed or not applicable.
< = not detected above method reporting limit shown.
NE = not established.
ug/m³ = micrograms per cubic meter of air .
GRO = gasoline-range organics.
Bolded concentrations exceed screening level risk-based concentrations and
¹ Lowest Risk-Based Concentration for soil gas/sub-slab vapor (screening
(Y) indicates analyte not detected, but detection limit is above screening concentration.
J = indicates the internal standard associated with the analyte is out of control limits; the reported concentration is an estimate.

Grey shaded cells indicate data representative of conditions prior to final remedial action and is not included in the maximum soil gas concentration
* Data appeared anomalous and is not considred in screening due.
Subsequent resampling was conducted.

Table 3 - Summary of Analytical Data, Sub-Slab Vapor and Soil Gas

		Maximum Soil-Gas Concentration	ODEQs Screening-level RBCs (Soil Vapor, Chronic) ¹	ODEQs Screening-level RBCs (Soil Vapor, Acute) ¹	Constituent of Concern (COC)	
Sample ID	Date Sampled					
Depth Sampled (feet)						
Sampled By						
Location		TRUE OR Y FALSE OR N				
Constituent of Interest			Note	µg/m ³		
Volatile Organic Constituents (TO-15 except where noted)						
Benzene	c, v		3.52 J	12	970.00	N
Dibromoethane, 1,2-	c, v		<6.2 (ND)	0.16	---	(Y)
Dichloroethane, 1,2-	c, v	<6.15 (ND)	3.6	---	(Y)	
Ethylbenzene	c, v	1.81 J	37	730000	N	
Methyl tert-Butyl Ether (MTBE)	c, v	<4.42 (ND)	360	270000	N	
Naphthalene	c, v	2.79	2.8	6700	N	
Isopropylbenzene (cumene)	nc, v	<4.98 (ND)	14000	---	N	
Toluene	nc, v	68.89	170000	250000	N	
Trimethylbenzene, 1,2,4-	nc, v	228.86	2100	---	N	
Trimethylbenzene, 1,3,5-	nc, v	73.74	2100	---	N	
Xylenes	nc, v	13.92 J	3500	290000	N	
Total Petroleum Hydrocarbons						
Gasoline	nc, v	4160.3	10000	0	N	
Leak Detection			Leak Screening Level		Leak Suggested?	
2-Propanol		824.72	5000		N	

Notes:
ND = not detected at or above laboratory method reporting limits.
— = not analyzed or not applicable.
< = not detected above method reporting limit shown.
NE = not established.
ug/m³ = micrograms per cubic meter of air .
GRO = gasoline-range organics.
Bolded concentrations exceed screening level risk-based concentrations and
¹ Lowest Risk-Based Concentration for soil gas/sub-slab vapor (screening
(Y) indicates analyte not detected, but detection limit is above screening
concentration.
J = indicates the internal standard associated with the analyte is out of
control limits; the reported concentration is an estimate.

Grey shaded cells indicate data representative of conditions prior to final
remedial action and is not included in the maximum soil gas concentration
* Data appeared anomalous and is not considred in screening due.
Subsequent resampling was conducted.

Table 4. Further Evaluation of COPCs in Soil

Contaminated Medium		SOIL mg/Kg (ppm)												Maximum Detected Concentration	Lowest Applicable RBC (Soil)	Constituent of Concern (COC)?
Exposure Pathway		Soil Ingestion, Dermal Contact, and Inhalation				Volatilization to Outdoor Air				Vapor Intrusion into Buildings						
		RBC _{ss}				RBC _{so}				RBC _{si}						
Receptor Scenario		Construction Worker		Excavation Worker		Urban Residential		Occupational		Urban Residential		Occupational				
Direct or Indirect Pathway (see notes)		DC		DC		IVS		IVS		IVS		IVS				
Contaminant of Concern	Note		Note		Note		Note		Note		Note		Note	mg/Kg (ppm)	mg/Kg (ppm)	Y/N
Volatile Organic Constituents																
Benzene	c, v	380		11000	>Csat	27		50		0.38		2.1		9.7	0.38	Y
Ethylbenzene	c, v	1700	>Csat	49000	>Csat	85		160		3		17		170	3	Y
Naphthalene	c, v	580	>Csat	16000	>Csat	15		83		15		83		48	15	Y
Toluene	nc, v	28000	>Csat	770000	>Csat	170000	>Csat	700000	>Csat	3400	>Csat	43000	>Csat	290	3400	N
1,2,4-Trimethylbenzene	nc, v	2900	>Csat	81000	>Csat	2000		8400		140		1800		520	140	Y
1,3,5-Trimethylbenzene	nc, v	2900	>Csat	81000	>Csat	2000		8400		98		1200		160	98	Y
Xylenes	nc, v	20000	>Csat	560000	>Csat	3300	>Csat	14000	>Csat	160		2000	>Csat	1130	160	Y
Total Petroleum Hydrocarbons																
Generic Gasoline (GRO)	nc, v	9700		-	>Max	5900		69000		94		-	>Max	15000	94	Y
Generic Diesel / Heating Oil (DRO)	nc, v	4600		-	>Max	-	>Max	-	>Max	-	>Max	-	>Max	3000	4600	N

Notes:

— = 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.

Shading indicates exceedance of generic RBC for specific pathway and receptor

>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.

Table 5. Further Evaluation of COPCs in Ground Water

Contaminated Medium				GROUND WATER µg/L (ppb)								Maximum Detected Concentration	Lowest Applicable RBC (Ground Water) ¹	Constituent of Concern (COC)?		
Exposure Pathway				Volatilization to Outdoor Air RBC _{wo}			Vapor Intrusion into Buildings RBC _{wi}			GW in Excavation RBC _{we}						
Receptor Scenario				Urban Residential		Occupational		Urban Residential		Occupational					Construction & Excavation Worker	
Direct or Indirect Pathway (see notes)				IVW		IVW		IVW		IVW					DS	
Contaminant of Concern		Note			Note		Note		Note		Note	µg/L (ppb)	µg/L (ppb)	Y/N		
Volatile Organic Constituents																
Benzene	c, v	7400		14000		510		2800		1800		100	510	N		
Ethylbenzene	c, v	23000		43000		1500		8200		4500		430	1,500	N		
Naphthalene	c, v	8500		16000		2000		11000		500		82	500	N		
1,2,4-Trimethylbenzene	nc, v	720000	>S	3000000	>S	50000		620000	>S	6300		930	6,300	N		
1,3,5-Trimethylbenzene	nc, v	570000	>S	2400000	>S	36000	>S	450000	>S	7500		210	7,500	N		
Xylenes	nc, v	1200000	>S	5100000	>S	86000		1100000	>S	23000		1810	23,000	N		
Total Petroleum Hydrocarbons																
Generic Gasoline (GRO)	nc, v	-	>S	-	>S	22000		-	>S	14000		15000	14,000	Y		

Notes:

— = not analyzed or not applicable.

Shading indicates exceedance of generic RBC for specific pathway and receptor

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

c = carcinogenic

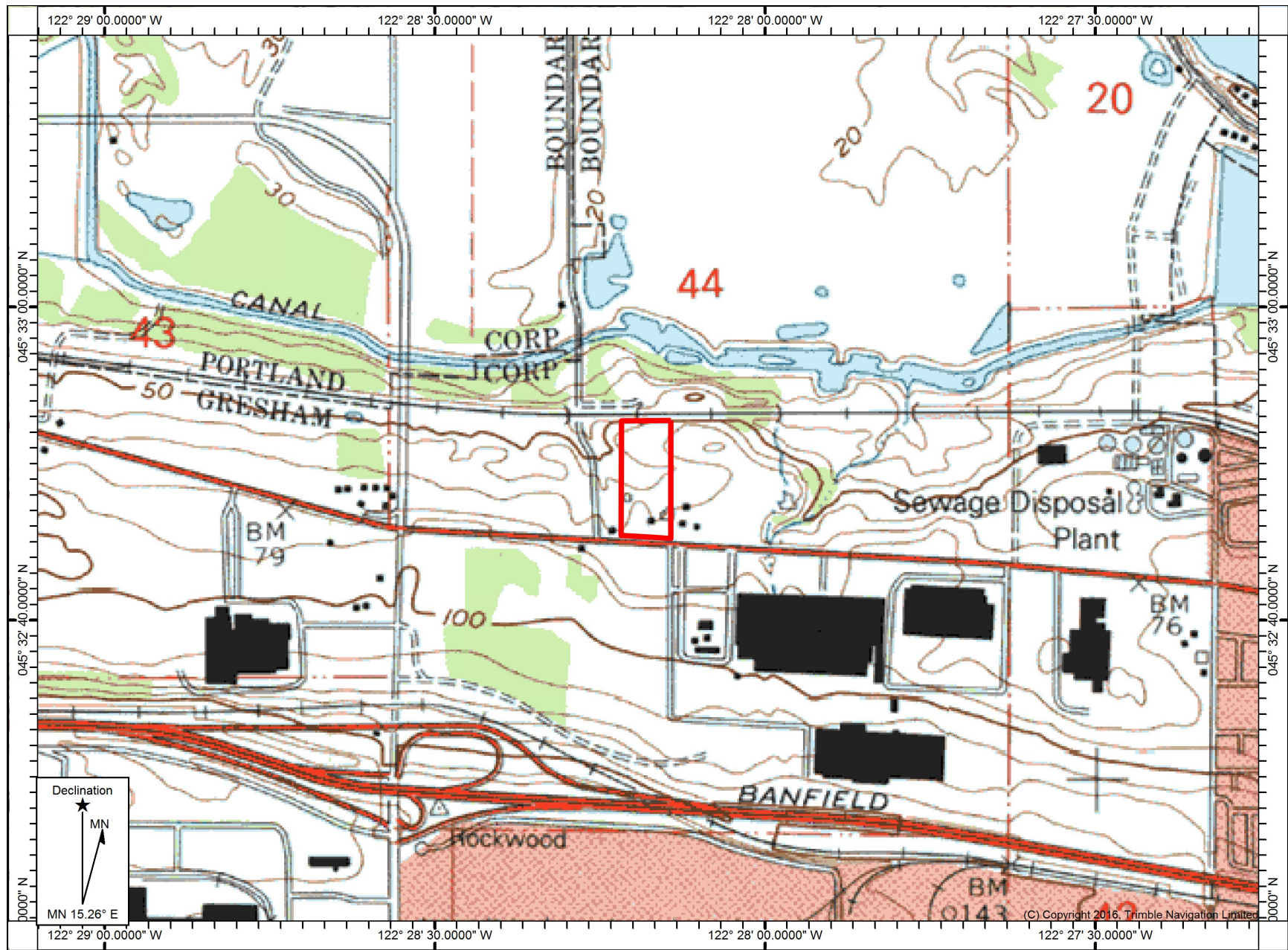
nc = noncarcinogenic

v = volatile

nv = nonvolatile

GRO = gasoline-range organics.

>S = This groundwater RBC exceeds the solubility limit.



Name: CAMAS
Date: Jan 1, 1993

0 1000 2000
Feet

Location: 045° 32' 49.0908" N, 122° 28' 10.6467" W
Contour Interval: 10 ft



Date Drawn: 10/21/2019
CAD File Name: 1257-18001-fig1sv_map(v01)
Drawn By: JOB
Approved By: LDG

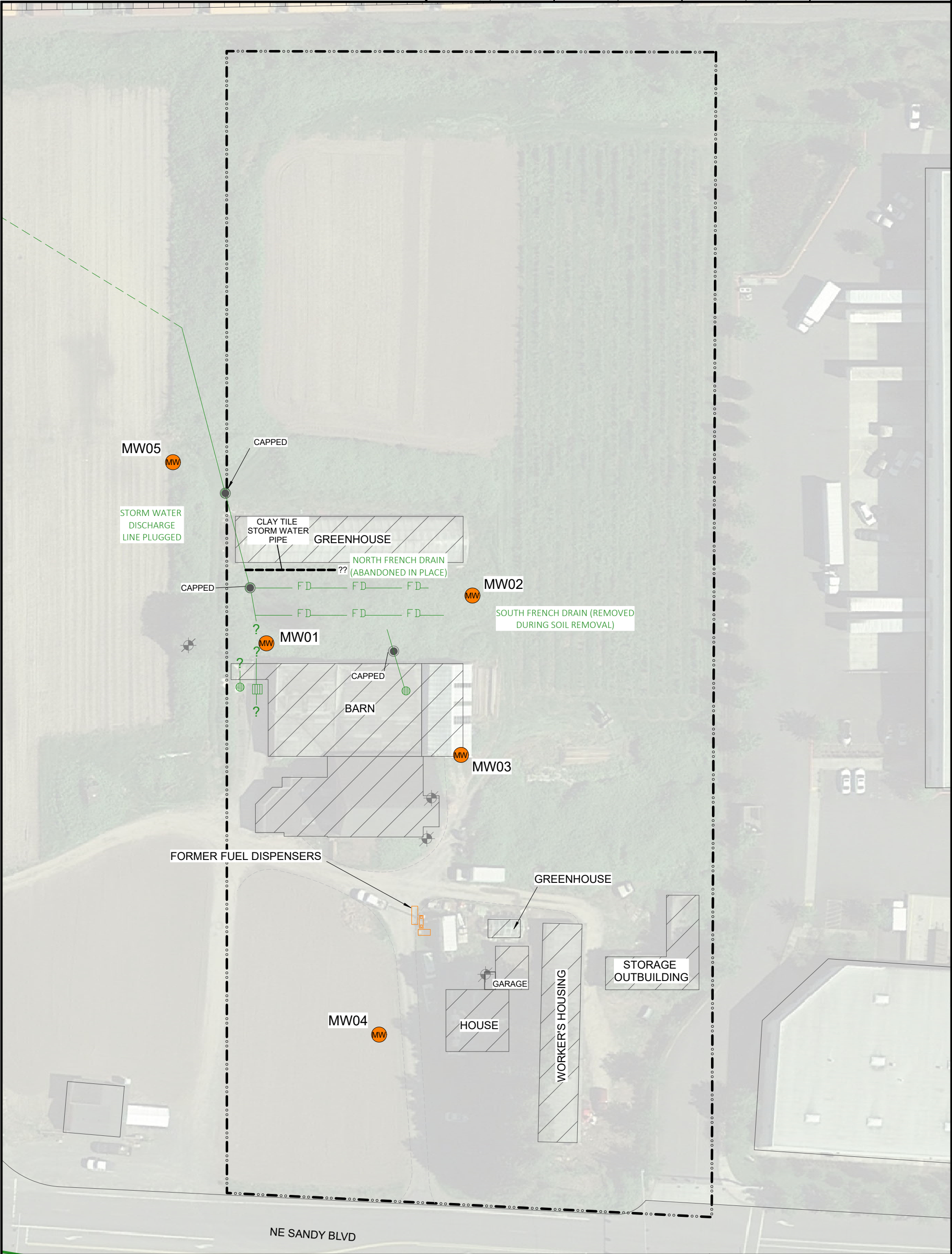
Cereghino Farms
18641 NE Sandy Boulevard
Gresham, Oregon

Site Vicinity Map

Project No.
1257-18001

Figure No.

1



- | | |
|--|---|
| SUBJECT BUILDINGS | CATCH BASIN |
| SUBJECT PROPERTY BOUNDARY | FRENCH DRAIN |
| BUILDING LOCATIONS | CITY STORM WATER MAIN |
| DRAINAGE PIPING | FLOOR DRAIN |
| INFERRED DRAINAGE PIPING | MONITORING WELL LOCATION |
| FORMER UNDERGROUND STORAGE TANK LOCATION | MONITORING WELL LOCATION (DECOMMISSIONED) |

NOTES:

- BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2017 AND ENW FIELD NOTES.
- ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
- SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

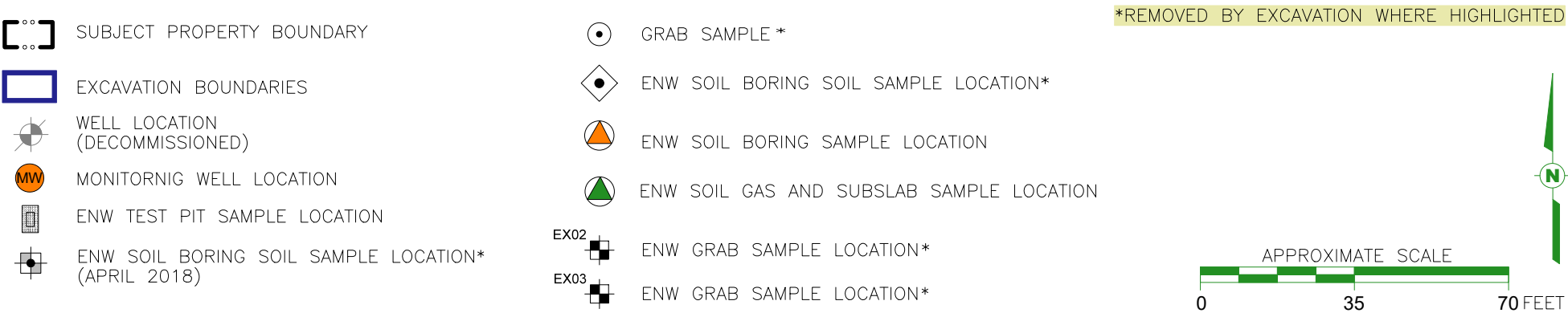
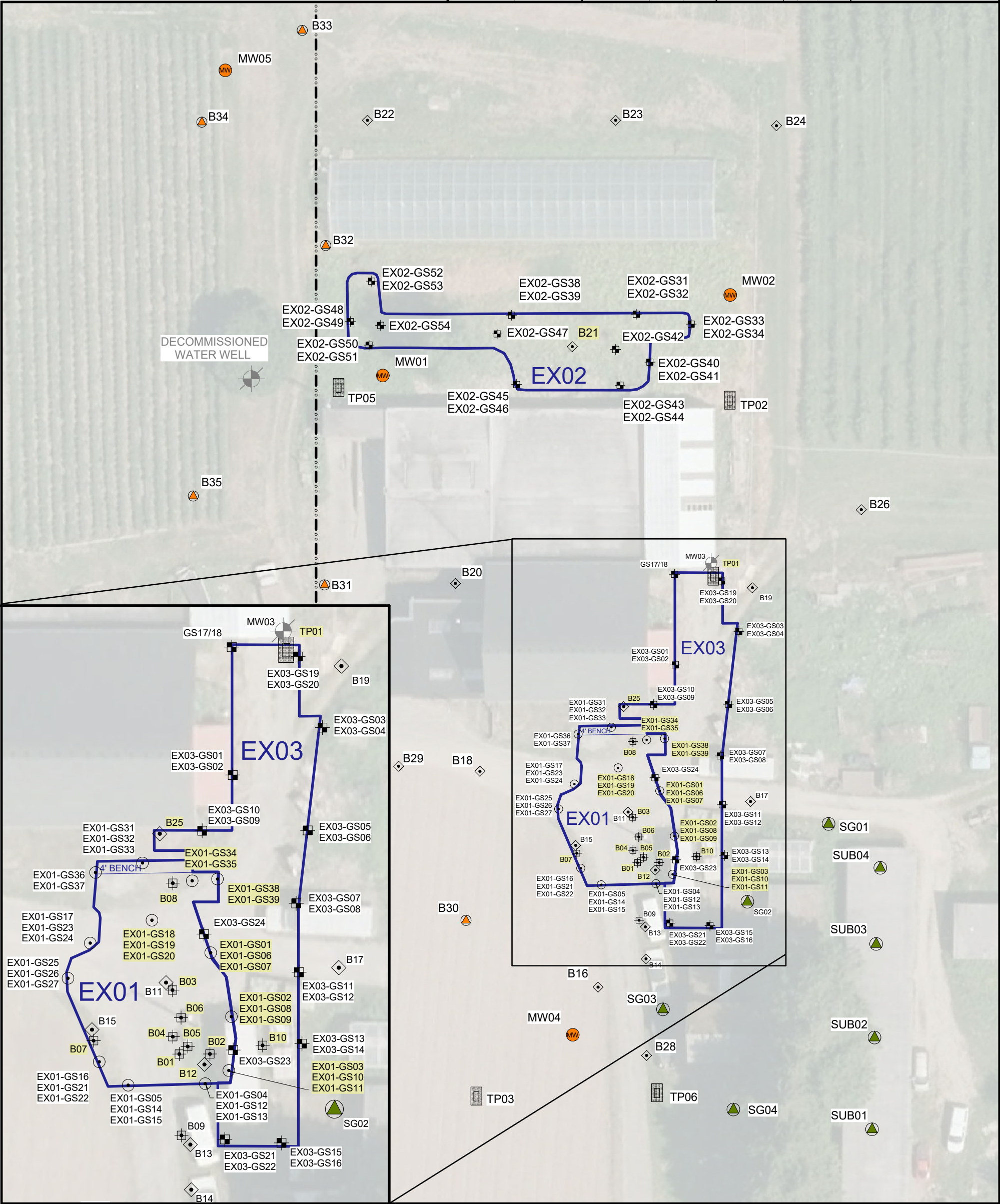
APPROXIMATE SCALE

0 60 120 FEET

EVREN NORTHWEST INC.
environmental natural resource consultants

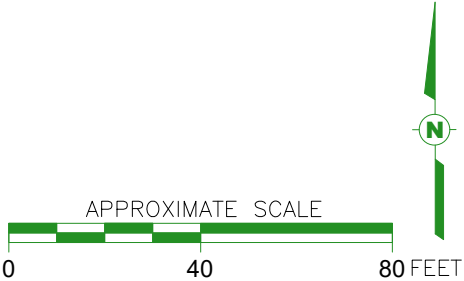
PO BOX 14488, PORTLAND, OREGON 97293
P: (503)452-5561, E: ENW@EVREN-NW.COM

FIGURE 2
SITE PLAN
CEREGHINO FARMS
18641 NE SANDY BOULEVARD
GRESHAM, OREGON



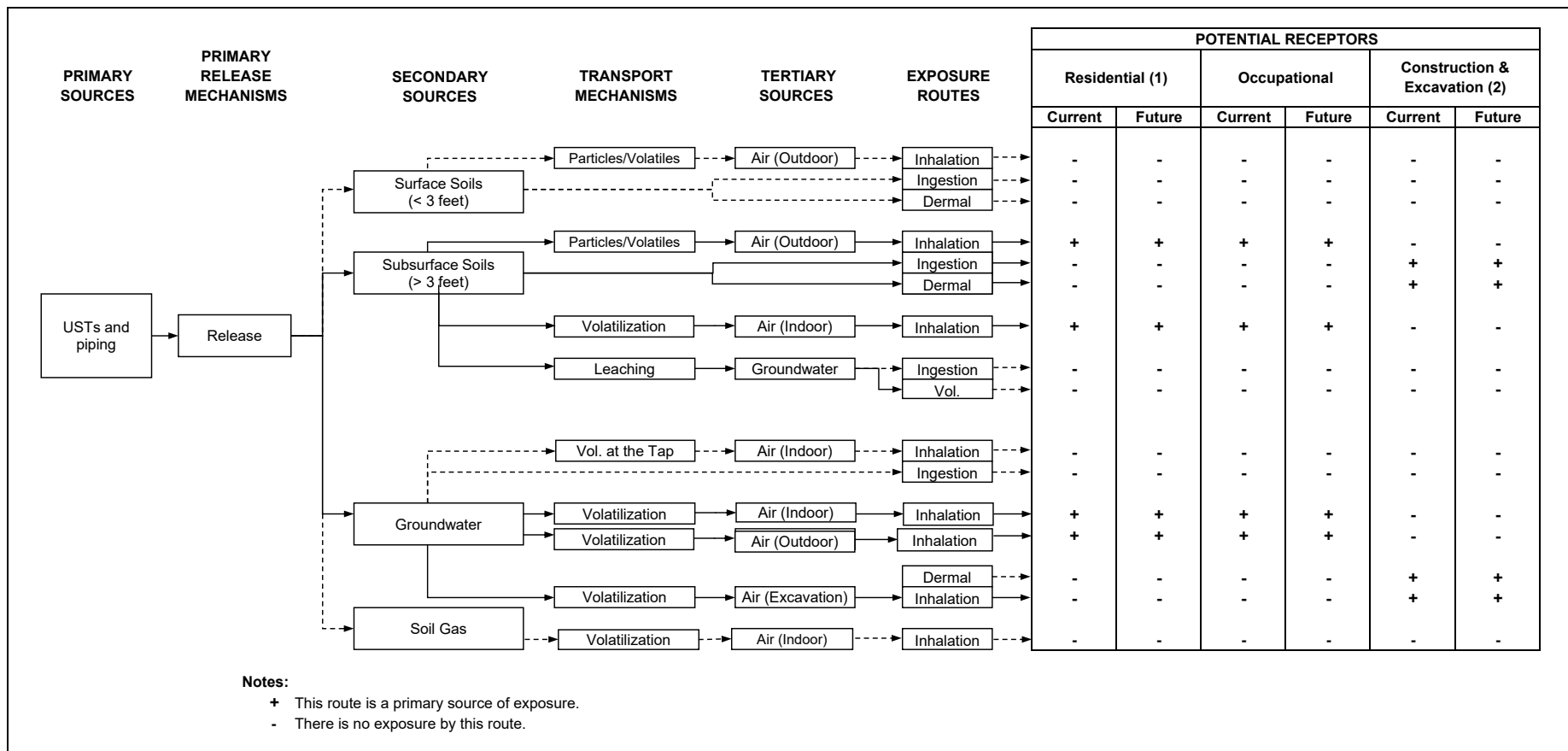


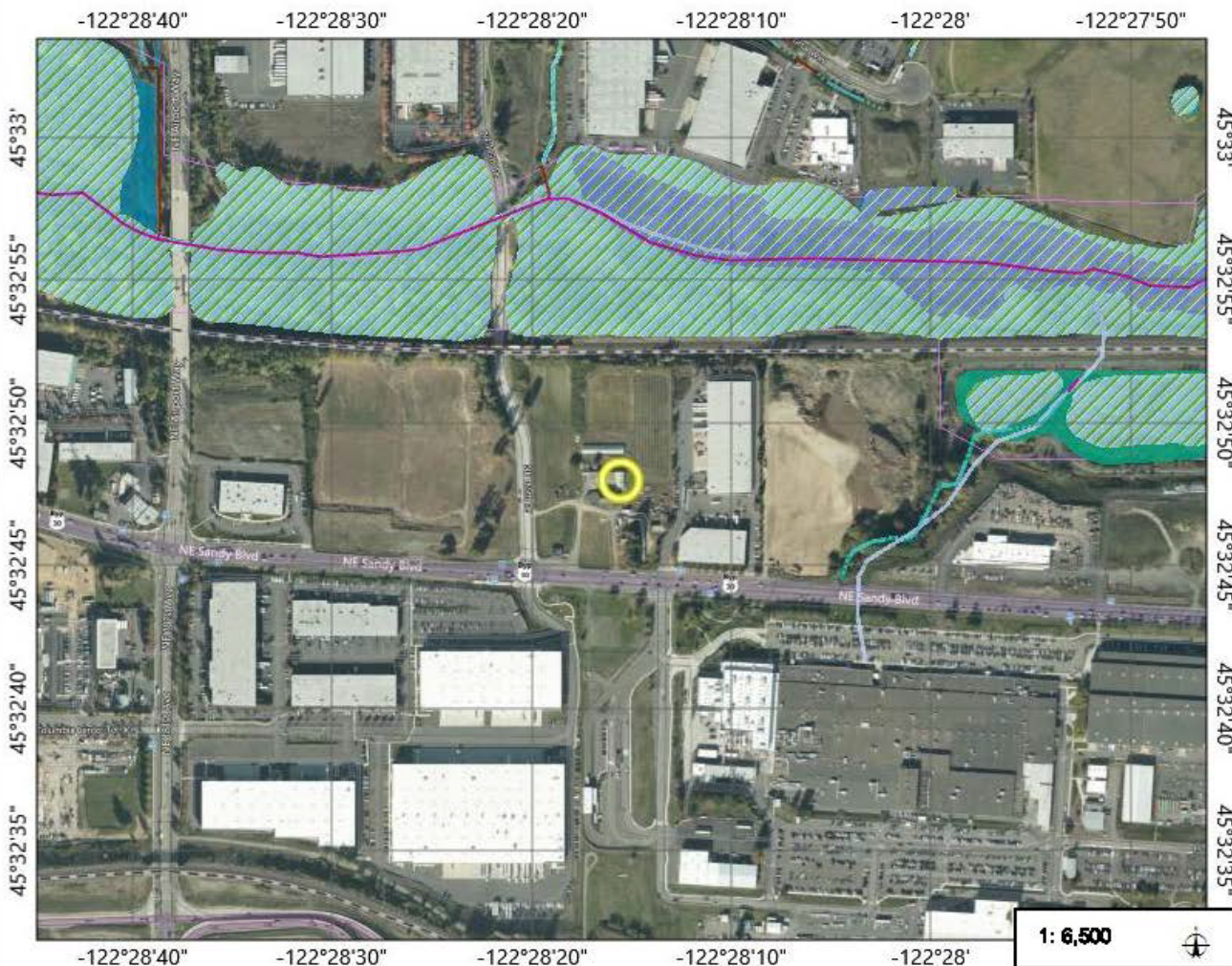
- | | | | |
|--|---------------------------------------|--|---|
| | SUBJECT BUILDINGS | | MONITORING WELL LOCATION (TOP OF CASING ELEVATION SHOWN PARENTHESTICALLY) |
| | SUBJECT PROPERTY BOUNDARY | | CATCH BASIN |
| | BUILDING LOCATIONS | | FLOOR DRAIN |
| | LOF | | FRENCH DRAIN |
| | EXTENT OF GRO IMPACTS TO GROUND WATER | | DRAINAGE PIPING |
| | EXTENT OF RESIDUAL GRO-IMPACTED SOIL | | INFERRED DRAINAGE PIPING |



- NOTES:
1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2017 AND ENW FIELD NOTES.
 2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
 3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

Figure 5. Conceptual Site Model (Human Health)





- Legend**
- County Boundaries (2016)
 - Flowline - Large Scale
 - Perennial
 - Intermittent
 - Ephemeral
 - Artificial Path
 - Canal Ditch
 - Coastline
 - Connector
 - Pipeline
 - Underground Conduit
 - LWI Probable Wetland Points
 - LWI Streams
 - LWI Probable Wetland Polygons
 - LWI Wetlands
 - National Wetland Inventory (2020)
 - More Oregon Wetlands (2019)
 - Oregon's Greatest Wetlands (2019)
 - Restoration Consideration Area
 - Wetland Region
 - Wetland or Wetland Complex
 - Wetlands in Oregon
 - Dark Gray Canvas
 - Reference
 - Dark Gray Canvas Base

Notes

Cereghino Farms Property
18641 NE Sandy Blvd
Gresham, Oregon

0.2 0 0.10 0.2 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
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