FOCUSED PHASE II ENVIRONMENTAL SITE ASSESSMENT

FUTURE QUEEN AVENUE APARTMENTS

2080 Queen Avenue SE
Albany, Oregon

Prepared for:

Linn-Benton Housing Authority
Attn: Donna Holt, ED
1250 Queen Avenue SE
Albany, Oregon 97322

Issued on:

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This

Focused Phase II Environmental Site Assessment

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Attn: Donna Holt, ED
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and its assignees

Issued May 6, 2024 *by:*

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List of Acronyms and Abbreviations

ASTM	American Society for Testing & Materials
bgs	below ground surface
CFSLs	clean fill screening levels
Client	Linn-Benton Housing Authority
COI	constituents of interest
COPCs	constituents of potential concern
CUL	cleanup level
DPT	direct-push technology
DU	decision unit
ENW	EVREN Northwest, Inc.
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
F&BI	Friedman and Bruya, Inc.
FSDS	Field Sampling Data Sheet
GPR	ground-penetrating radar
GRO	gasoline-related organics
HCID	hydrocarbon identification
HDR	High Dynamic Range
ISM	Incremental Sampling Methodology
ITRC	Interstate Technology and Regulatory Council
MA	magnetic anomaly
MRL	method reporting limit
mg/Kg	milligrams per Kilogram
MRL	method reporting limit
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
OWRD	Oregon Water Resources Dept.
OWSC	Oregon Water Science Center
PID	photoionization detector
ppmv	parts per million by volume
RBCs	risk-based concentrations
RBDM	ODEQ's *Risk-Based Decision Making for the Remediation of Contaminated Sites* guidance document
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
SLRBCs	screening-level risk-based concentrations
SAP	Sample/Analysis Plan
SOW	scope of work
TPH	total petroleum hydrocarbons
USGS	U.S. Geological Survey
VOCs	volatile organic constituents

1.0 Introduction

At the request of Linn-Benton Housing Authority (Client), EVREN Northwest, Inc. (ENW) conducted a Focused Phase II Environmental Site Assessment (ESA) at the property located at 2080 Queen Avenue SE in Albany, Oregon (subject property; see Figures 1 and 2). The scope of work addresses potential environmental concerns at the subject property identified in ENW's recent Phase I ESA.[1]

This report summarizes environmental concerns and describes the Focused Phase II ESA scope of work, findings, and conclusions.

2.0 Background

2.1 Current and Historical Use of the Subject Property and Vicinity

The subject property historically was part of a larger agricultural property in the 1930s and 1940s. Between the 1950s and 1990s, the subject property appeared to have been used for storage of unknown materials, equipment, and/or structures related to a business or private operation on the adjoining property to the northeast (2110 Queen Avenue SE). Businesses listed at the 2110 Queen Avenue SE address include Bee-Hive Truck Rental Co, Johnnies Fuel Service, and Albany Construction Inc. prior to residential use at present. Since the early 2000s, records suggest the subject property has been largely vacant and undeveloped.

2.2 Previous Phase I ESA Findings

ENW conducted a Phase I ESA at the subject property in general accordance with American Society of Testing and Materials (ASTM) Standard Practice 1527-21.[1] The purpose of the Phase I ESA was to identify any existing *recognized environmental conditions* (RECs) associated with the subject property.

The findings of the Phase I ESA were as follows:

- *Historical research has indicated that as early as 1948, the subject site may have been associated with the northeast adjacent property identified as 2110 Queen Avenue SE, based upon patterns of use observed in historical aerial photographs. Structures and/or large stored items appeared on site by 1955 and larger buildings were observed straddling the southeast property boundary by 1967. City directories identified previous tenants of potential environmental interest at 2110 Queen Avenue SE to include Bee-Hive Truck Rental Co. and Johnnies Fuel Service. Based on paths and driveways observed in historical aerial photographs leading from this northeast adjacent property to former structures on the subject site, activities associated with these tenants (including potential automotive repair/maintenance and/or fueling operations or storage) could have taken place on the subject site. The potential for historical automotive and fueling activities on site was identified as a recognized environmental condition.*

Based on the findings of the Phase I ESA, ENW made the following recommendation:

[1] ENW, 2023. *Phase I Environmental Site Assessment*, Future Queen Avenue Apartments, 2080 Queen Avenue SE, Albany, Oregon; Site Conditions as of May 31, 2023.

- A focused Phase II ESA should be completed to assess surface and subsurface media in areas of historical commercial activities on the subject property.

A proposed scope of work for the focused Phase II ESA was presented to Ms. Donna Holt, ED, of Linn-Benton Housing Authority on February 21, 2024. The proposal was approved on April 3, 2024.

2.3 Scope of Work

ENW performed a scope of work (SOW) in accordance with the proposal and included the following tasks:

- Conducted a geophysical survey to identify existing subsurface features of environmental interest (i.e., USTs, hoists, etc) and to clear sample locations.
- Collected one (1) surface soil sample according to the Interstate Technology & Regulatory Council (ITRC) Incremental Sampling Methodology (ISM) guidance document.[2]
- Advanced four (4) soil borings and collected subsurface soil samples for laboratory analysis.
- Submitted samples to an independent laboratory for selected analytical procedures.
- Evaluated analytical data against applicable human health risk-based screening levels established by the Oregon Department of Environmental Quality (ODEQ).
- Completed this report describing the above activities and findings.

Appendix A presents photographs of work conducted on site during this SOW.

3.0 Site Description

Site and Vicinity General Description. The subject property is comprised of the northern 0.6 acres of tax lot 6000 of Linn County tax map 11S03W08DB. The subject property is irregularly shaped and bordered to the west by Multnomah NE Boulevard and to the north by Queen Avenue SE. Currently, the subject property is an undeveloped open field. Current development of surrounding properties includes single- and multi-family residences, and a Pacific Power substation. Site features and nearby surrounding properties are presented on the Site Plan on Figure 2.

Geographic Setting. The subject site is located within the U.S. Geological Survey (USGS) Tangent, OR 7.5-minute quadrangle, at an approximate elevation of 227 feet above mean sea level (see Figure 1). The subject property is generally level. Regional surface topography slopes gently to the northwest toward the Willamette River.

Geologic Setting. The subject site is located in the central Willamette Valley of western Oregon. The Willamette Valley is a lowland between the Cascade Range to the east and the Coast Range to the west. The erosional and depositional alluvial processes of the Willamette River and its tributary streams have modified the structural depression of the basin. The Willamette River Basin is floored by a blanket of sediments locally exceeding 100 feet thick.

[2] ITRC, February 2012. *Incremental Sampling Methodology, Technical and Regulatory Guidance*: Prepared by The Interstate Technology & Regulatory Council Incremental Sampling Methodology Team.

Geologic mapping of this portion of the Willamette Valley shows the site is located primarily on the main body of fine-grained Missoula Flood deposits (Qff2),[3] which were emplaced by late Pleistocene catastrophic floods (Missoula Floods) that were impounded within the Willamette Basin. These flood sediments are composed of stratified silt and clay with minor sand. Rhythmic bedding, with up to 40 individual beds between 0.1- and 1.0-meter-thick, are found in many sections. Thickness of these sediments is sufficient to obscure previous topography. This unit is commonly capped by up to 2.0 meters of alluvium, colluvium and less, depending on location. The subject property appears to be close to the mapped contact of Qff_2 with sand and gravel that postdates Missoula Floods (Qg_1), which are alluvial sand and gravel deposited in broad braidplains within Willamette Valley and form planar to slightly undulating terraces 0 to 15 m (50 feet) above the modern floodplain.[3]

Hydrogeology. This part of the central Willamette Valley is drained by the north-flowing Willamette River and its tributaries. Periwinkle Creek is the closest surface water body, located approximately 800 feet to the southwest. The U.S. Geological Society's Oregon Water Science Center (OWSC) estimates the regional ground water aquifer to be approximately eight (8) feet below ground surface (bgs) in the site vicinity. During the course of this investigation ground water was encountered between 14 and 17 feet bgs. No wells are registered to the subject property, as suggested during a search of the State of Oregon Water Resources Department (OWRD) online database.

For the purposes of this report, it is assumed that shallow ground water flow generally mimics surface water flow (i.e., from topographic highs to lows). However, multiple factors can affect the direction of ground-water flow in subsurface layers including, but not limited to, sediment/rock type, subsurface utility lines, buried river valleys, and stream beds, folds, fractures, and faults. The direction of ground water flow in the subject area is generally expected to be to the northwest, based on the local and regional topography.

4.0 Methods

This section describes the methods used to conduct the Scope of Work. Field activities for this project are documented in the photographic log included as Appendix A.

4.1 Work Objectives

The objective of this work was to quantitatively determine whether hazardous substances may be present in the subsurface beneath the subject site, and if their presence could potentially be considered an environmental concern. In addition, the following general objectives were followed:

- To perform the work efficiently and cost-effectively, minimizing interference with any site operations.
- To perform the work in a safe manner for technical personnel and site employees / visitors.
- To document information and data generated in a professional manner that is valid for the intended use.

[3] O'Connor J.E. and Others, 2001, Geologic Map of Quaternary Units in the Willamette Valley, Oregon: U.S. Geological Survey Professional Paper 1620, maps (1:250,000).

4.2 Preparation Activities

ENW performed or coordinated the following activities prior to conducting site characterization activities:

Plan Preparation. An in-house Sampling and Analysis Plan was prepared for the project.

One Call Notification. Prior to any subsurface site work, a call was placed with One Call Utility Notification Service to identify and locate all public utilities near each of the proposed sampling locations.

Private Utility Locate. In addition to the public utility locate, sample locations were cleared of public and private underground utilities by Geopotential, Inc. as part of the geophysical survey.

Planning. ENW scheduled and coordinated with the Client and subcontractors to begin site work.

4.3 Geophysical Survey

The geophysical survey and interpretation of the geophysical data was performed on April 18, 2024, by Geopotential, Inc. of Clackamas, Oregon under ENW's oversight. The survey was performed to: 1) screen for the presence of underground features of potential environmental concern; and, 2) clear boring locations of underground utilities.

The survey utilized geophysical instruments to identify subsurface magnetic "anomalies." Geophysical anomalies result from contrasts of geophysical signatures of subsurface materials but can also result from interference with surface and overhead features. Geophysical characteristics result from a variety of factors (e.g., density, distribution, porosity, fill placement, contrasts in soil composition, intergranular fluid composition and saturation, contaminant impacts, etc.), as well as buried artifacts, and similar anomalies may be produced by different sources. Except where investigated by excavation, all anomalies and interpretations should be considered (somewhat) speculative.

Multiple instrument types were used during the survey to maximize recognition of contrasting subsurface materials. These included:

Aqua-Tronics Electronic Tracer - electromagnetic sensing equipment designed to identify subsurface anomalies. In the inductive mode, the equipment is used to sense metallic objects (ferrous and non-ferrous) in the subsurface. A conductive mode allows for tracing electrical conduit and metallic pipelines.

Schonstedt Gradiometer (Magnetometer) – used as a complement to the Aqua-Tronics instrument, the magnetometer senses horizontal variations in the local magnetic field caused by buried ferrous metal objects such as USTs, drums, pipes, and debris-filled trenches.

> *Magnetic surveys can only detect ferrous metal objects. Interference caused by observed surface metal objects limits the accuracy of the survey. The anomalies produced by fences, power lines, cars, and buildings can easily mask an anomaly caused by an underground target.*

Mala High Dynamic Range (HDR) Ground Penetrating Radar (GPR) - GPR uses short impulses of high-frequency radio waves directed into the ground to acquire information about the subsurface. GPR can be used to accurately locate both metallic and non-metallic objects (e.g., USTs, utilities, and drums) from a few inches below the surface to depths of up to 30 feet. GPR may also be effective at delineating trenches and excavations.

4.4 Surface Soil Sample Collection

ENW conducted shallow soil sampling activities on April 18, 2024 using ISM developed by the ITRC.[4] Under this method, the area of interest is referred to as a decision unit (DU) and the compositing and subsequent laboratory processing provides a reliable estimate of the average contaminant concentration across the DU that can be used to make risk-based decisions. For the purpose of this investigation, the entire site was selected as a decision unit and designated DU01. The extent of decision unit DU01 is outlined in purple on Figure 3.

A total of 50 equal-volume incremental subsamples were collected from DU01 from a depth of zero to 0.5 feet below ground surface (bgs). Incremental sub-samples were collected in a random fashion in a grid-like pattern across the DU using a decontaminated stainless-steel hand auger. Each incremental soil sub-sample consisted of an approximate 40-gram soil volume. Gravel (>1/8-inch diameter) and debris (roots, twigs, bark) were removed prior to collection.

The 50 incremental subsamples were combined in a laboratory-prepared, dedicated 1-gallon glass sample jar using clean nitrile gloves. The sample jar was sealed with a Teflon-lined lid, uniquely labelled, and preserved on ice pending transport to the laboratory. The sample jar was immediately transported to the laboratory following chain-of-custody procedures.

4.5 Soil Boring and Sampling

On April 22, 2024, ENW advanced four (4) direct-push technology (DPT) soil borings using a track-mounted GeoProbe drill rig operated by Anderson Environmental Contracting, Inc. of Kelso, Washington. The locations of the soil borings are illustrated on Figure 3. Soil materials recovered from the GeoProbe drill rods were inspected continuously for evidence of contamination by visual and olfactory inspection in addition to semi-quantitative screening using a photoionization detector (PID). Soil lithology, field screening results, and other observations were recorded by an ENW geologist onto soil boring logs, presented in Appendix B.

Soil borings were completed several feet below the observed ground water table (maximum depth of 20 feet bgs). During each sampling interval, select portions of the soil core were retained for possible laboratory analysis. Soils were selected from portions of the soil core where field screening suggested the presence of contamination. In the absence of contamination, at least one soil sample was collected from unsaturated vadose zone soils, and one soil sample was collected from the soil/ground water interface. Soil samples were placed directly into laboratory prepared glass container, sealed with a Teflon-lined cap, uniquely labeled, and preserved on artificial ice in a cooler for transport to the laboratory. Samples for analysis of volatile constituents were additionally collected using sampling procedures prescribed by the U.S. Environmental Protection Agency (EPA) Method 5035.

Upon reaching the total depth of each DPT soil boring, the GeoProbe drill tooling was removed and a temporary well casing was installed in the open borehole in preparation for ground water sampling. Approximately four (4) to five (5) liters of ground water were purged from each boring using a low-flow peristaltic pump and dedicated polyethylene tubing to “purge” the standing water from the borehole, and to draw representative ground water into the temporary well. Following purging, ground water samples were collected from clean, dedicated polyethylene tubing connected to a peristaltic pump set at its lowest

[4] The ISM protocol is explained in detail in a February 2012 guidance document issued by the Interstate Technology Regulatory Council.

setting (100 to 150 milliliters per minute). The flow rate was minimized to reduce off gassing of volatile constituents during sampling. Samples were transferred into laboratory-supplied containers with appropriate preservative, uniquely labeled, documented on a chain-of-custody record, and placed in a cooler on ice pending transport to the laboratory. Reconnaissance ground water field sampling data sheets (FSDS) are included in Appendix C.

All non-disposable sampling equipment was decontaminated to minimize the potential for cross-contamination. Following sampling, all borings were properly abandoned in accordance with Oregon regulations and the pavement/asphalt surface restored, as applicable. Start cards and well reports will be submitted by Cascade to the OWRD as required.

4.6 Laboratory Sub-Sampling, Compositing and Analytical Methods

Soil and reconnaissance ground water samples were packaged and transported for analysis to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington under strict chain-of-custody protocols.

Prior to analysis, F&BI processed (dried, sieved, subsampled, etc.) the surface soil sample per ISM protocols. Laboratory subsampling and sample preparations were conducted in accordance with the EPA's *Guidance for Obtaining Representative Laboratory Analytical Subsamples from Particulate Laboratory Samples* (EPA, 2003). Appropriately-sized sample aliquots of the processed ISM soil sample and reconnaissance ground water samples were analyzed for constituents of interest and by the analytical methods presented Table 4-1.

Copies of the laboratory analytical reports with Quality Assurance / Quality Control (QA/QC) documentation are provided in Appendix D.

Table 4-1. Analytical Methods

Analytical Method	Constituents	Surface Soil	Reconnaissance Ground Water
NWTPH-HCID	Northwest Total Petroleum Hydrocarbons Identification – Gasoline-range organics (GRO), Diesel-Range Organics (DRO) and Residual-Range Organics (RRO)	All samples	---
NWTPH-Gx	Total Petroleum Hydrocarbons as GRO	---	All samples
NWTPH-Dx	Total Petroleum Hydrocarbons as DRO and RRO	---	All samples
EPA 8260D	Volatile Organic Compounds	---	All samples
NWTPH-Dx following silica gel cleanup	Extracts Passed through Silica Gel Column Prior to Analysis	--	Water samples with indication of matrix interference based on communication with laboratory
EPA 6020B	Total Resource Conservation and Recovery Act (RCRA) 8 Metals	Surface soil sample from DU01	---

4.7 Cleanup Standards 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 risk-based concentration (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 ($1x10^{-6}$), 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.[5,6] 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.
- **Clean Fill Screening Levels.** Analytical data for organics were compared to clean fill screening levels (CFSLs) for upland sites established by the ODEQ.[7] ODEQ does not require materials in which contaminant concentrations are less than or equal to CFSLs to be regulated as a solid waste. Rather, these materials may be placed at upland locations that are far enough away from a surface water body, or where there are sufficient controls to avoid erosion into surface water. CFSLs are used to determine if impacts to soil may require future management and are not used for risk screening.

4.7.1 Waste Management and Disposal

Soil cuttings and purge water generated during drilling activities were placed into 55-gallon drums, labeled and left on-site pending results of laboratory analysis. Sampling gloves, rags, and tubing, which were disposed of as solid waste.

5.0 Findings

5.1 Geophysical Survey

The geophysical survey identified six (6) distinguishable magnetic anomalies as described further below. Magnetic anomalies MA01 through MA06 are shown on the Site Plan on Figure 2.

MA01. A small, approximately 1-foot diameter, magnetic anomaly identified in the eastern portion of site. Manual excavation with a shovel revealed an apparent scrap piece of corrugated sheet metal.

MA02, MA03, MA04 and MA05. Several small, linear anomalies were detected with electromagnetic equipment that were suggestive of segments of former buried utilities.

MA06. A short (approximately 3-foot long) length of metal pipe exposed at the surface in line with a nearby fire hydrant along the Queen Avenue SE right-of-way suggestive of possible former water line repair work.

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

[6] 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.

[7] ODEQ. July 2014. Clean Fill Determinations: Internal Management Directive, last updated February 21, 2019, by Heather Kuoppamaki.

Based on the above magnetic anomalies, no buried features suggestive of potential environmental concern were identified during the geophysical survey.

5.2 General Subsurface Conditions

Field data from boring logs indicate the subject property is underlain with the following materials.

Fine SAND (SP) with silt, and SILT with fine sand (SM). Encountered at the surface and extending to between 1 (1) and three (3) feet bgs in borings B02, B03, and B04.

Lean CLAY (CL) with silt. Grey-brown, stiff with grey and orange mottling, visible at the surface in boring B01, and underlying fine-grained sands and silts in remaining borings. Approximately 15 feet thick in all four borings and consistent with the upper portion of the Willamette Silt aquifer.

Gravel with sand (GP). Poorly-graded gravels, grey, fine to medium-grained, sub angular gravel with trace silt; typically saturated and loose. Underlay the lean clay and extended to total depth in all borings.

Saturated conditions were encountered within the lean CLAY at approximately 15 to 17 feet bgs. Field headspace readings using a PID did not detect the presence of significant volatile constituents in soil (maximum readings were below 1.0 ppmv); and there was no evidence of obvious chemical impact in soils from any of the borings.

A summary of soil samples collected from boring locations is provided in Table 5-1.

Table 5-1. Summary of Sample Locations.

Borehole / Location ID	Date Sampled	Depth Sampled (feet)	Sampled By	Location
Soil				
DU01	4/18/2024	0.5	ENW	Entire site
B01	4/22/2024	5	ENW	Northeast portion near eastern property margin
		14		
B02	4/22/2024	5	ENW	Southern portion near southern property margin
		17.5		
B03	4/22/2024	5	ENW	Southeastern portion near southern property margin
		17		
B04	4/22/2024	5	ENW	Eastern portion near northern property margin
		15		
Reconnaissance Ground Water				
B01	4/22/24	10	ENW	Northeast portion near eastern property margin
B02	4/22/24	9	ENW	Southern portion near southern property margin
B03	4/22/24	12	ENW	Southeastern portion near southern property margin
B04	4/22/24	10	ENW	Eastern portion near northern property margin

5.3 Laboratory Results

5.3.1 Soil Sample Results

The results of laboratory analysis of soil samples are presented in Table 1 and summarized below. The boring locations are shown on the Sample Location Diagram on Figure 3.

Petroleum Hydrocarbons. All soil samples were screened for the presence of petroleum hydrocarbons by NWTPH-HCID and quantification was performed as appropriate. Pertinent findings of laboratory analysis are as follows:

- Petroleum hydrocarbons were not detected in any of the eight (8) soil boring samples from B01-B04 or the surface soil sample at DU01 above the laboratory method reporting limit (MRL).

RCRA 8 Metals. The surface soil sample from DU01 was analyzed for total RCRA 8 metals. Laboratory analysis reported the following metals in soil:

- Arsenic was detected in soil at concentration of 2.9 milligrams mg/Kg, which exceeds ODEQ's SLRBC of 0.43 mg/Kg; however, does not exceed ODEQ's regional default background concentration for arsenic in the Portland Basin and its CFSL of 8.8 mg/Kg, suggesting arsenic in surface soil is not enriched at the subject property.
- Remaining metals were either detected at concentrations below their respective SLRBCs/background levels, or were not detected above the laboratory's method reporting limits (MRLs).

5.3.2 Reconnaissance Ground Water Sample Results

The results of laboratory analysis of reconnaissance ground water samples are presented in Table 2 and summarized below. The boring locations are shown on the Sample Location Diagram on Figure 3.

Petroleum Hydrocarbons. All reconnaissance ground water samples were analyzed for the presence of GRO by NWTPH-Gx, and DRO and RRO by NWTPH-Dx:

- GRO was not detected above the laboratory MRL in any of the samples analyzed.
- DRO was detected in B02, B03, and B04 at concentrations of 160 micrograms per liter (µg/L), 63 µg/L, and 56 µg/L, respectively. The laboratory flagged all detections with the "x" qualifier indicating that the sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- RRO was not detected in any of the samples

On April 25, 2024, ENW requested the laboratory to further evaluate the "x" flagged DRO results to better understand the type of diesel product detected in samples B02, B03, and B04. Further evaluation revealed that results may be due to natural organic matter. Based on the recommendation of the laboratory, NWTPH-Dx analytical data was further resolved by passing the sample extract through silica gel to remove organic interference. The further laboratory analysis did not detect DRO in the reconnaissance ground water samples above the laboratory MRL, suggesting the initial detection was due to biogenic interference.

Volatile Organic Compounds. All reconnaissance ground water samples were analyzed for a full list of VOCs by EPA 8260D.

- None of the full list VOCs were detected above the respective laboratory MRL.

6.0 Conclusions and Recommendations

The findings of this Focused Phase II ESA have led to the following conclusions:

- There were no suggestions of buried features of potential environmental concern identified during a geophysical survey of the subject property.
- Field screening and laboratory analysis of representative soil and reconnaissance ground water collected from areas of potential concern did not reveal the presence of contaminants above human health risk based screening levels or naturally occurring background concentrations.

Based on the results of this Phase II ESA, ENW recommends no further investigation or research at this time.

We recommend this report is kept as part of the permanent property records.

7.0 Limitations

The scope of this report is limited to observations made during on-site work; interviews with knowledgeable sources; and review of readily available published and unpublished reports and literature. As a result, these conclusions are based on information supplied by others as well as interpretations by qualified parties.

The focus of the site closure 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.

- Naturally occurring toxic or hazardous substances in the subsurface soils, geology and water,
- Toxicity of substances common in current habitable environments, such as stored chemicals, products, building materials and consumables,
- Contaminants or contaminant concentrations that are not a concern now but may be under future regulatory standards,
- Unpredictable events that may occur after ENW's site work, 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. Therefore, if contamination other than that specifically mentioned is present and not identified as part of a limited Scope of Work, ENW's environmental investigation shall not be construed as a guaranteed absence of such materials. ENW have endeavored to collect representative analytical samples for the locations and depths indicated in this report. However, no sampling program can thoroughly identify all variations in contaminant distribution.

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.

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 assumes 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.

Tables

Table 1 - Summary of Analytical Data, Soil

Location ID		DU01	B01		B02		B03		B04		Maximum Soil Concentration (remaining soil)	Soil Matrix Cleanup Level	ODEQs Screening-Level Risk-Based Concentrations SLRBCs[1] (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQs Screening-Level SLRBCs (Soil) and/or Soil Matrix Cleanup Level
Sample ID		DU01-240418-IS-0.5	B01-5	B01-14-SWI	B02-5	B02-17.5-SWI	B03-5	B03-17-SWI	B04-5	B04-15-SWI						
Date Sampled		4/18/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024	4/22/2024						
Depth Sampled (feet)		0.5	5	14	5	17.5	5	17	5	15						
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW						
Location		Entire site	Northeast portion near eastern property margin		Southern portion near southern property margin		Southeastern portion near southern property margin		Eastern portion near northern property margin					South Willamette Valley		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)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)					
Metals																
Arsenic	c, nv	2.9	---	---	---	---	---	---	---	---	2.9	NE	0.43	18	18	BKG
Barium	nc, nv	130	---	---	---	---	---	---	---	---	130	NE	15000	730	730	N
Cadmium	nc, nv	<1 (ND)	---	---	---	---	---	---	---	---	<1 (ND)	NE	78	1.6	1.6	N
Chromium (III)	nc, nv	10	---	---	---	---	---	---	---	---	10	NE	120000	100	100	N
Lead	NA, nv	17	---	---	---	---	---	---	---	---	17	NE	30	28	28	N
Mercury	nc, nv	<1 (ND)	---	---	---	---	---	---	---	---	<1 (ND)	NE	23	0.07	0.07	N
Nickel	c, nv	<1 (ND)	---	---	---	---	---	---	---	---	<1 (ND)	NE	1500	50	50	N
Silver	nc, nv	<1 (ND)	---	---	---	---	---	---	---	---	<1 (ND)	NE	390	0.33	0.33	N
Total Petroleum Hydrocarbons																
Generic Gasoline (GRO)	nc, v	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	<20 (NP)	80	31	---	520	N
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	<50 (NP)	500	1100	---	90	N
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)	<250 (NP)		2800	---	140,000	N

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

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

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

Table 2 - Summary of Analytical Data, Reconnaissance Ground Water

Location ID		B01	B02	B03	B04	Maximum Ground Water Concentration	ODEQs Screening-level Risk-Based Concentrations (SLRBCs) [1]	COPC?
Sample ID		B01-240422-GW	B02-240422-GW	B03-240422-GW	B04-240422-GW			
Date Sampled		4/22/24	4/22/24	4/22/24	4/22/24			
Depth Sampled (feet)		10	9	12	10			
Sampled By		ENW	ENW	ENW	ENW			
Location		Northeast portion near eastern property margin	Southern portion near southern property margin	Southeastern portion near southern property margin	Eastern portion near northern property margin			TRUE OR Y FALSE OR N
Constituent of Interest	Note	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)	µg/L (ppb)		
Volatile Organic Constituents								
Benzene	c, v	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	<0.35 (ND)	0.46	N
Bromodichloromethane	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.13	(Y)
Bromoform	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	3.3	(Y)
Bromomethane	nc, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	7.5	N
Carbon tetrachloride	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.46	(Y)
Chlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	77	N
Chlorodibromomethane (dibromochloromethane)	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.17	(Y)
Chloroethane (ethyl chloride)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	21000	N
Chloroform	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.22	(Y)
Chloromethane	nc, v	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	<10 (ND)	190	N
1,2-Dichlorobenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	300	N
1,4-Dichlorobenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.48	(Y)
1,1-Dichloroethane	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	2.8	N
1,1-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	280	N
cis-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	36	N
trans-1,2-Dichloroethene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	360	N
Dichloromethane	c, v	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	<5 (ND)	11	N
EDB (1,2-dibromoethane)	c, v	<0.01 (ND)	<0.01 (ND)	<0.01 (ND)	<0.01 (ND)	<0.01 (ND)	0.0075	(Y)
EDC (1,2-dichloroethane)	c, v	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	<0.2 (ND)	0.17	(Y)
Ethylbenzene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1.5	N
MTBE (methyl t-butyl ether)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	14	N
Naphthalene	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	0.17	Y
iso-Propylbenzene (cumene)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	440	N
Tetrachloroethene (PCE)	c, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	12	N
Toluene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1100	N
1,1,1-Trichloroethane	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	8000	N
1,1,2-Trichloroethane	c, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.28	(Y)
Trichloroethene	NA, v	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	<0.5 (ND)	0.49	(Y)
Trichlorofluoromethane (Freon 11)	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1100	N
1,3,5-Trimethylbenzene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	59	N
Vinyl chloride	c, v	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	<0.02 (ND)	0.027	N
Xylenes	nc, v	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	<3 (ND)	190	N
Semivolatile Organic Constituents								
Styrene	nc, v	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	<1 (ND)	1200	N
Total Petroleum Hydrocarbons								
Generic Gasoline (GRO)	nc, v	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	<100 (ND)	110	N
Generic Diesel / Heating Oil (DRO)	nc, v	<50 (ND) **	<50 (ND) **	<50 (ND) **	<50 (ND) **	<50 (ND) **	100	N
Generic Mineral Insulating Oil (RRO)	nc, nv	<250 (ND) **	<250 (ND) **	<250 (ND) **	<250 (ND) **	<250 (ND) **	300	N

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.

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

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

— = not analyzed or not applicable.

c = carcinogenic

nc = noncarcinogenic

v = volatile

nv = nonvolatile

GRO = gasoline-range organics.

DRO = diesel-range organics.

RRO = residual-range organics.

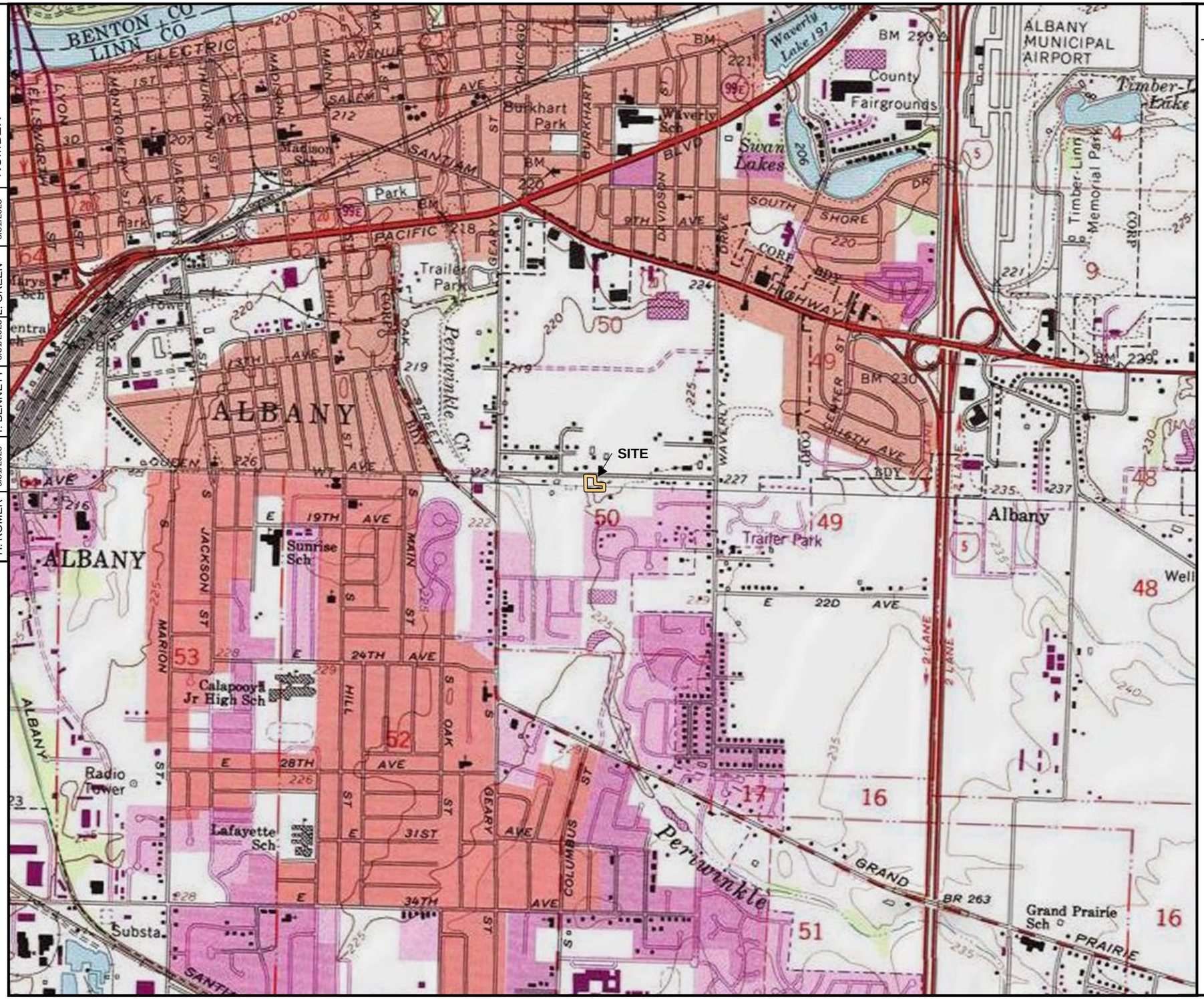
** = sample extract passed through silica gel filter berfore analysis

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

J = inidicates the internal standard associated with the analyte is out of control limits; the reported concentration is an estimate.

Figures

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY
732-23002(V01)	L. GREEN 5/31/2023	T. BENNETT 5/31/2023	H. ROMER 5/31/2023



LEGEND:

SUBJECT PROPERTY BOUNDARY

NOTES:

1. BASE MAP DEVELOPED BY THE USGS (ALBANY, 1:24000, 2013)

0 800 1,600 3,200

Feet

N

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FIGURE 1

SITE VICINITY MAP

FUTURE QUEEN AVE APARTMENTS
2080 QUEEN AVE SE
ALBANY, OREGON

DRAWING NUMBER	732-23002(V01)
APPROVED BY	L. GREEN 5/3/2024
CHECKED BY	E. CHAPMAN 5/3/2024
DRAWN BY	H. ROMER 5/3/2024

LEGEND:

- SUBJECT PROPERTY BOUNDARY
- FORMER BUILDING PER 1955-1994 AERIAL PHOTOS
- MAGNETIC ANOMALY
- FORMER ROAD AND CAR STORAGE AREA PER 1948 - 1994 AERIAL PHOTOS
- OVERGROWN VEGETATION
- INFERRED SEWER/STORM LINE
- MANHOLE
- PAD TRANSFORMER
- POLE TRANSFORMER
- SLOPE

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 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

0 15 30 60 Feet

N

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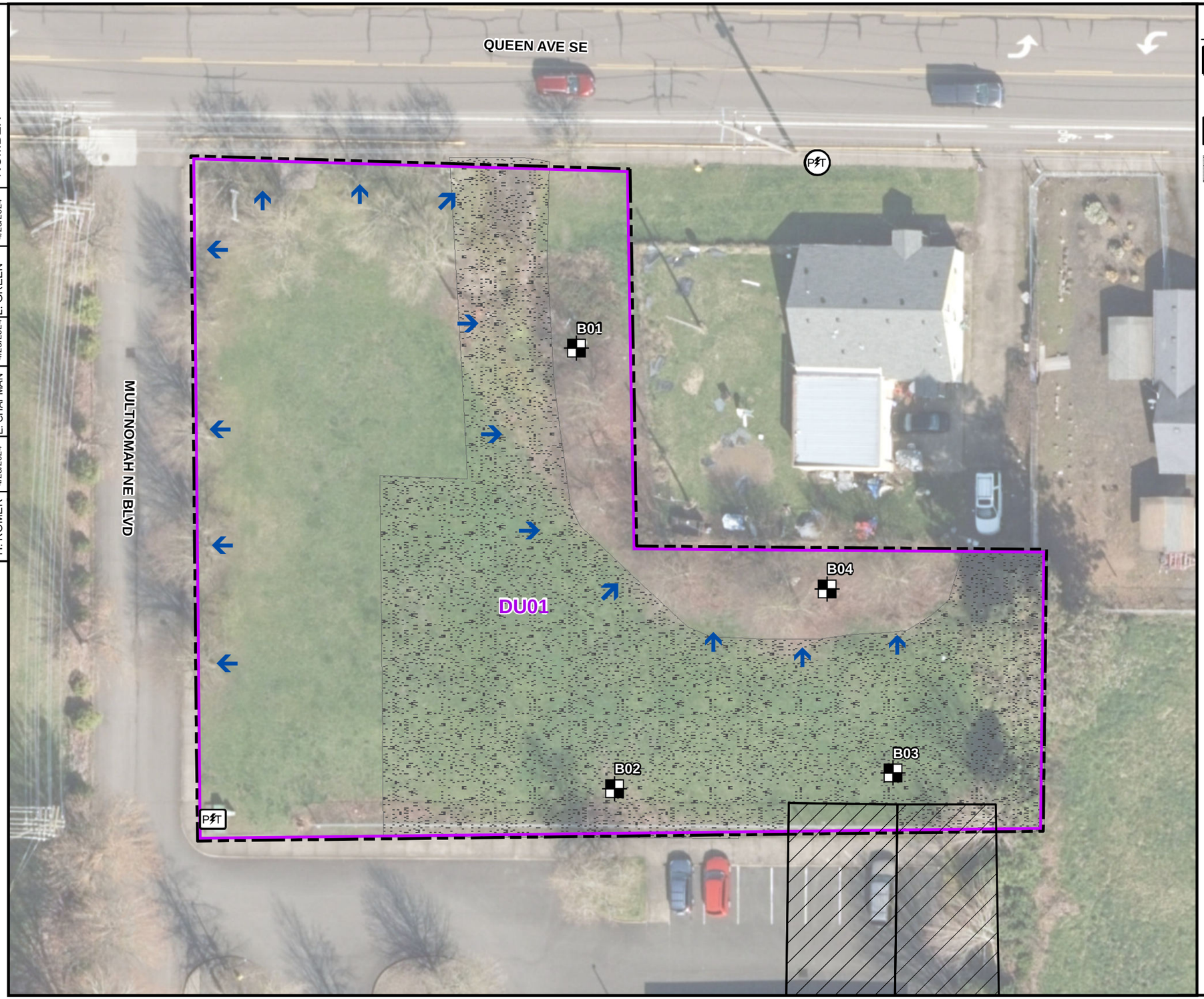
environmental natural resource consultants

FIGURE 2

SITE PLAN WITH MAGNETIC ANOMALIES

FUTURE QUEEN AVE APARTMENTS
2080 QUEEN AVE SE
ALBANY, OREGON

DRAWING NUMBER	732-23002(V01)
APPROVED BY	L. GREEN 4/25/2024
CHECKED BY	E. CHAPMAN 4/25/2024
DRAWN BY	H. ROMER 4/25/2024



LEGEND:

- SUBJECT PROPERTY BOUNDARY
- DECISION UNIT
- FORMER BUILDING PER 1955-1994 AERIAL PHOTOS
- FORMER ROAD AND CAR STORAGE AREA PER 1948 - 1994 AERIAL PHOTOS
- PAD TRANSFORMER
- POLE TRANSFORMER
- SLOPE
- BORING LOCATION

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 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

0 15 30 60 Feet

N

EVREN NORTHWEST INC.
environmental natural resource consultants

FIGURE 3

SAMPLE LOCATION DIAGRAM

FUTURE QUEEN AVE APARTMENTS
2080 QUEEN AVE SE
ALBANY, OREGON

Appendix A

Site Photographs

An electro-magnetic scanner was utilized to screen for the presence of buried objects.

Magnetic anomalies were marked in white paint and further investigated with a magnetometer and physical means (shovel), when possible.

View of buried corrugated pipe fragment detected as magenetic anomaly MA01.

Geophysical instruments were also used to clear boring locations of underground utilities and obstructions.

EVREN NORTHWEST INC environmental natural resource consultants	Future Queen Avenue Apartments 2080 Queen Avenue SE Albany, Oregon	**Site Photographs**	Project No. 732-23002-02 Appendix **A**

View east showing stainless-steel sample probe used for surface soil collection at decision unit DU01.

Fifty subsamples of surface soil were combined in a glass sample container using ISM sampling methods.

AEC setting up 7822 DT drill rig to complete boring

Bored material was mostly fine-grained down to approximately 17 feet, where coarser material was encountered.

EVREN NORTHWEST INC environmental natural resource consultants	Future Queen Avenue Apartments 2080 Queen Avenue SE Albany, Oregon	**Site Photographs**	Project No. 732-23002-02 Appendix **A**

Reconnaissance groundwater samples were collected from temporary borings.

Soil cuttings and purged water stored in drums onsite pending laboratory analysis.

EVREN NORTHWEST INC environmental / natural resource consultants	Future Queen Avenue Apartments 2080 Queen Avenue SE Albany, Oregon	**Site Photographs**	Project No. 732-23002-02 Appendix **A**

Appendix B

Soil Boring Logs

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Focused Phase II Environmental Site Assessment	73-23002-02	**B01**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
2080 Queen Avenue SE, Albany, OR	4/22/24	4/22/24	2.25	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Anderson Environmental Contracting, LLC				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	Jordan Morris	20

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Lean CLAY (CL); brown-gray; with silt and trace fine sand; moist; medium stiff; medium plasticity; micaceous; monor orange and gray mottling			90			
5				B01-5	grab			0.3	
			wet at 7' 2" lens of brown sand			100			temp well screen installed interval
10								0.9	
						100			
			stained	B01-14-SWI	grab			0.4	
15			Fine GRAVEL with sand (GP); gray-brown; sub-rounded gravel; trace silt; medium dense; saturated;					0.4	
						90			
20			End of boring					0.3	
25									
30									
35									

EVREN Northwest, Inc.

DRILL LOG

PROJECT: Focused Phase II Environmental Site Assessment		PROJECT NO.: 73-23002-02	BORING NO.: **B02**
SITE: 2080 Queen Avenue SE, Albany, OR	BEGUN: 4/22/24	COMPLETED: 4/22/24	HOLE SIZE: 2.25
COORDINATES	DEPTH GROUND WATER / DATE SL / STATIC LEVEL / FIRST WATER		GROUND ELEVATION
DRILLER: Anderson Environmental Contracting, LLC	CORE RECOVERY (%) / # SAMPLES / # CORE BOXES		DEPTH TOP OF ROCK
DRILL MAKE AND MODEL	LOGGED BY: Jordan Morris		DEPTH BOTTOM OF HOLE: 20

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE TYPE	CORE RECOVERY	MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			Fine SAND with silt (SP); dark brown; root traces; medium loose; mostly micaceous			50			
			GRAVEL with sand (GP); gray-brown; medium to fine angular gravel; moist; micaceous						
5			Lean CLAY with silt (CL); brown; moist; stiff; gray and orange mottling; micaceous; gray staining from 4.5-6.5'	B05-5	grab	80		0.1	
10						100		0.0	temp well screen interval
15			stained gray 15-18'					0.0	
			saturated	B02-17-SWI	grab	100			
			GRAVEL with sand (GP); brown; fine, subrounded gravel; saturated; loose; no mica visible						
20			End of boring					0.4	
25									
30									
35									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Focused Phase II Environmental Site Assessment	73-23002-02	**B03**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
2080 Queen Avenue SE, Albany, OR	4/22/24	4/22/24	2.25	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Anderson Environmental Contracting, LLC				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	Jordan Morris	20

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			SILT with fine sand (SM); dark brown; moist; dense; root traces; micaceous			60			
			Lean CLAY with silt (CL); gray-brown; wet; stiff; mottle gray and orange; medium plasticity; micaceous						
5				B03-5	grab	90		0.1	
10						100		0.0	
15			saturated; stained	B03-17-SWI	grab	100		0.1	temp well screen interval
			GRAVEL with sand (GP); brown; fine to coarse gravel; saturated; medium loose; no mica						
20			End of boring						
25									
30									
35									

EVREN Northwest, Inc.

DRILL LOG

PROJECT	PROJECT NO.	BORING NO.
Focused Phase II Environmental Site Assessment	73-23002-02	**B04**

SITE	BEGUN	COMPLETED	HOLE SIZE	ANGLE FROM HORIZ.
2080 Queen Avenue SE, Albany, OR	4/22/24	4/22/24	2.25	

COORDINATES	DEPTH GROUND WATER	DATE SL	STATIC LEVEL	FIRST WATER	GROUND ELEVATION

DRILLER	CORE RECOVERY (%)	# SAMPLES	# CORE BOXES	DEPTH TOP OF ROCK
Anderson Environmental Contracting, LLC				

DRILL MAKE AND MODEL	LOGGED BY:	DEPTH BOTTOM OF HOLE
	Jordan Morris	20

DEPTH	STRATA ELEVATION/ DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE DATA: SAMPLE NO.	SAMPLE DATA: SAMPLE TYPE	SAMPLE DATA: CORE RECOVERY	SAMPLE DATA: MW Const./ Completion	PID/OVM	REMARKS: NOTES ON WATER LEVELS, LOSSES, CAVING, CASING, DEPTH & DRILLING CONDITIONS.
0			SAND with silt (SP); dark brown; fine-grained sand; moist; medium dense; micaceous						
			Lean CLAY with silt (CL); gray-brown; with fine sand; moist; stiff; mottle gray and orange; medium plasticity; micaceous			100			
5				B04-5	grab			0.1	
			2" lens of brown sand			100			
			root traces to 13'						
10								0.1	temp well screen interval
						100			
			staining 14 to 15'						
15			saturated	B04-15-SWI	grab			0.1	
			GRAVEL with sand (GP); brown; fine to medium sub angular gravel; trace silt; saturated; loose; no mica			100			
20			End of boring					0.1	
25									
30									
35									

Appendix C

Field Sample Data Sheets

EVREN Northwest **GROUND WATER FIELD SAMPLING DATA FORM (FIELD)**

PROJECT NAME: _____ PROJECT NUMBER: 732-23002-02

Event: _____ Date: 4/22/24

Field Personnel: NICK, JORDAN Monitoring Well ID: B01

Weather Conditions: SUNNY, 51° Start Time: 9:55

DTW (prior to purging): 10.28

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (L/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L) , ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)
								Total Purged:	

Tubing: 1/2"

Purge Pumping Rate (approx. L/m): .150 Well casing (in. diam): 1"

Decontamination method: Approx. Pump/Intake Depth:

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes:

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☐ None

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump ☐ Dual Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GX, DX, VOCs	F+B	HCL	40mL	4	B01-240422-GW	10:40
		NONE	500mL	1		
		NONE	1L	1		
		HNO_3	250mL	2		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Water stayed brown/murky for apprx. 1/2 hour before clearing up, at which point sampling was taken.

Signature of Field Personnel: Nick Reppanen

EVREN Northwest **GROUND WATER FIELD SAMPLING DATA FORM (FIELD)**

PROJECT NAME: _____ PROJECT NUMBER: 732-23002-02

Event: _____ Date: 4/22/24

Field Personnel: NICK, JORDAN Monitoring Well ID: B02

Weather Conditions: SUNNY, 56° Start Time: 10:58

DTW (prior to purging): 9.34

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (L/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)

Total Purged:

Tubing: 1/4"

Purge Pumping Rate (approx. L/m): _____ Well casing (in. diam): 1"

Decontamination method: _____ Approx. Pump/Intake Depth: _____

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes:

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☐ None

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump ☐ Dual Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
Gx, Dx, VOCs	F+B	HCL	40 mL	4	B02-240422-GW	11:35
		NONE	500 mL	1		
		NONE	1 L	1		
		HNO_3	250 mL	2		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Water cleared up after about 40 min

Signature of Field Personnel: Nick Reporinch

EVREN Northwest GROUND WATER FIELD SAMPLING DATA FORM (FIELD)

PROJECT NAME: _____ PROJECT NUMBER: 732-23002-02

Event: _____ Date: 4/22/24

Field Personnel: NICK / JORDAN Monitoring Well ID: B03

Weather Conditions: SUNNY, 59° Start Time: 12:07

DTW (prior to purging): 12.4

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (L/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)

Total Purged:

Tubing: 1/4"

Purge Pumping Rate (approx. L/m): _____ Well casing (in. diam): 1"

Decontamination method: _____ Approx. Pump/Intake Depth: _____

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes:

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☐ None

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump ☐ Dual Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
Gx, Dx, VOCs	F+B	HCL	40 mL	4	B03-240422-GW	12:42
		NONE	500 mL	1		
		NONE	1 L	1		
		HNO_3	250 mL	2		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Water took approx. 35 min. to become clear.

Signature of Field Personnel: Nick Reponen

EVREN Northwest **GROUND WATER FIELD SAMPLING DATA FORM (FIELD)**

PROJECT NAME: _____ PROJECT NUMBER: 732-23002-07

Event: _____ Date: 4/22/24

Field Personnel: NICK, JORDAN Monitoring Well ID: B04

Weather Conditions: SUNNY 61° Start Time: 12:56

DTW (prior to purging): 10.02

WELL PURGING INFORMATION

Time	DTW During Purging (feet)	Pumping Rate (L/min)	Temperature (degree C)	Specific Conductivity (mS/cm), ±3%	Dissolved Oxygen (mg/L), ±10%	Water pH (S.U.), , ±0.1%	ORP (mV), , ±10 mV	Turbidity (NTU), , ±10%	Total Quantity Purged (gallons/liters)

Total Purged:

Tubing: 1/4" Well casing (in. diam): 1"

Purge Pumping Rate (approx. L/m): Approx. Pump/Intake Depth:

Decontamination method:

Well Conversion Factors: 2" = 0.17 gal / foot; 5/8" = 0.02 gal/foot

WELL CONDITION

Recommended Well Repairs/Additional Notes:

QA/QC Sample: ☐ Duplicate ☐ Lab QA/QC ☐ Equipment Blank ☐ None

Sampling Method: ☐ Grundfos Pump ☒ Peristaltic Pump ☐ Bladder Pump ☐ Dual Valve

SAMPLE INFORMATION

Analytical Parameters	Destination Laboratory	Preservative	Bottle Size	Number of bottles	Sample ID	Time Sampled
GRx, DRx, VOCs	F+B	HCL	40mL	4	B04-240422-GW	13:20
		NONE	500mL	1		
		NONE	1 L	1		
		HNO_3	250mL	2		

Method of Transportation of samples: FedEx Courier

All samples were immediately placed into a cooler and packed with ice or "blue Ice" ☒ Yes ☐ No

Field Observations/Notes of sampling event:

Purged water for Apprx. 30 min until it became clear.

Signature of Field Personnel:

Appendix D

Laboratory Analytical Report

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

April 29, 2024

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on April 19, 2024 from the 732-23002-02, F&BI 404313 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0429R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 19, 2024 by Friedman & Bruya, Inc. from the Evren Northwest 732-23002-02, F&BI 404313 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
404313 -01	DU01-240418-IS-0.5

Silver in the 6020B matrix spike and matrix spike duplicate did not meet the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

Date of Report: 04/29/24
Date Received: 04/19/24
Project: 732-23002-02, F&BI 404313
Date Extracted: 04/22/24
Date Analyzed: 04/22/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
DU01-240418-IS-0.5 404313-01	ND	ND	ND	98
Method Blank 04-961 MB	ND	ND	ND	96

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Analysis For Total Metals By EPA Method 6020B

Client ID:	DU01-240418-IS-0.5	Client:	Evren Northwest
Date Received:	04/19/24	Project:	732-23002-02, F&BI 404313
Date Extracted:	04/22/24	Lab ID:	404313-01
Date Analyzed:	04/22/24	Data File:	404313-01.076
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	2.9
Barium	130
Cadmium	<1
Chromium	10
Lead	17
Mercury	<1
Selenium	<1
Silver	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	NA	Project:	732-23002-02, F&BI 404313
Date Extracted:	04/22/24	Lab ID:	I4-318 mb
Date Analyzed:	04/22/24	Data File:	I4-318 mb.047
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

Date of Report: 04/29/24
Date Received: 04/19/24
Project: 732-23002-02, F&BI 404313

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 404317-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	<5	94	85	75-125	10
Barium	mg/kg (ppm)	50	102	107 b	68 b	75-125	45 b
Cadmium	mg/kg (ppm)	10	<5	98	91	75-125	7
Chromium	mg/kg (ppm)	50	19.4	98 b	91 b	75-125	7 b
Lead	mg/kg (ppm)	50	6.60	95	88	75-125	8
Mercury	mg/kg (ppm	5	<5	104	97	75-125	7
Selenium	mg/kg (ppm)	5	<5	103	91	75-125	12
Silver	mg/kg (ppm)	10	<5	70 vo	67 vo	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	92	80-120
Barium	mg/kg (ppm)	50	98	80-120
Cadmium	mg/kg (ppm)	10	97	80-120
Chromium	mg/kg (ppm)	50	100	80-120
Lead	mg/kg (ppm)	50	96	80-120
Mercury	mg/kg (ppm)	5	104	80-120
Selenium	mg/kg (ppm)	5	103	80-120
Silver	mg/kg (ppm)	10	91	80-120

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

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

404313

SAMPLE CHAIN OF CUSTODY

04/19/24 ISM/FI

Page # 1 of 1

Report To LYNN GREEN

Company EVREN-NW

Address 40 SE 24TH AVE

City, State, ZIP PORTLAND, OR 97214

Phone 503-452-1536 Email lyng@evren-nw.com

SAMPLERS (*signature*)

PROJECT NAME: 732-23002-02

PO#

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TOTAL METALS				Notes
DV01-240418-IS-0.5	01	4-18-24	11:55	Soil	1				X				X				
							Samples received at 1 °C										

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	EVAN BRUYNEEL	EVREN	4-18-24	17:00
Received by:	Nhan Phan	FEBI	4/19/24	1035
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: Queen Ave Apartments - 2080 Queen Ave SE, Albany Project Number: 732-23002-02

Date of Review: 4/30/2024 Lab. Name: F&BI Lab Batch ID #: 404313

Chain of Custody

1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	

Timing

5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Quality Assurance/Quality Control

7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reason besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	

If yes, indicate blank type, chemical(s) and concentration(s): _____

13.) For inorganics and metals, is there one method blank for each analyte?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	

Accuracy

16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☒yes	☐no	☐NA
Do all surrogate spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☒yes	☐no	☐NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Precision

19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☒no	☐NA
If not, are all discrepancies footnoted?	☒yes	☐no	☐NA

Barium was spiked at a level that was less than five times that present in the sample. The matrix spike duplicate did not meet the acceptance criteria and may not be meaningful. (b)

Silver in the 6020B matrix spike and matrix spike duplicate did not meet the acceptance criteria. The laboratory control sample passed the acceptance criteria; Therefore, the results were due to matrix effect. (vo)

20.) Are all matrix spike/matrix spike duplicate RPDs within
acceptable limits? ☐yes ☒no ☐NA
If not, are all discrepancies footnoted? ☒yes ☐no ☐NA

Barium and chromium were spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful. (b)

21.) Do all RPD calculations for Field Duplicates meet accepted criteria? ☐yes ☐no ☒NA

Comments:

Initial Review By: LMP **Final** Review By: EB

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

April 29, 2024

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on April 23, 2024 from the 732-23002-02, F&BI 404348 project. There are 3 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0429R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2024 by Friedman & Bruya, Inc. from the Evren Northwest 732-23002-02, F&BI 404348 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
404348 -01	B01-5
404348 -02	B01-14-SWI
404348 -03	B02-5
404348 -04	B02-17.5-SWI
404348 -05	B03-5
404348 -06	B03-17-SWI
404348 -07	B04-5
404348 -08	B04-15-SWI

All quality control requirements were acceptable.

Date of Report: 04/29/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404348
Date Extracted: 04/23/24
Date Analyzed: 04/23/24

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR GASOLINE, DIESEL AND HEAVY OIL BY NWTPH-HCID

Results Reported on a Dry Weight Basis
Results Reported as Not Detected (ND) or Detected (D)

THE DATA PROVIDED BELOW WAS PERFORMED PER THE GUIDELINES ESTABLISHED BY THE WASHINGTON DEPARTMENT OF ECOLOGY AND WERE NOT DESIGNED TO PROVIDE INFORMATION WITH REGARDS TO THE ACTUAL IDENTIFICATION OF ANY MATERIAL PRESENT

Sample ID Laboratory ID	Gasoline	Diesel	Heavy Oil	Surrogate (% Recovery) (Limit 50-150)
B01-5 404348-01	ND	ND	ND	94
B01-14-SWI 404348-02	ND	ND	ND	92
B02-5 404348-03	ND	ND	ND	95
B02-17.5-SWI 404348-04	ND	ND	ND	93
B03-5 404348-05	ND	ND	ND	94
B03-17-SWI 404348-06	ND	ND	ND	94
B04-5 404348-07	ND	ND	ND	94
B04-15-SWI 404348-08	ND	ND	ND	94
Method Blank 04-1002 MB	ND	ND	ND	98

ND - Material not detected at or above 20 mg/kg gas, 50 mg/kg diesel and 250 mg/kg heavy oil.

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

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

404348

SAMPLE CHAIN OF CUSTODY

04/23/24

N2|B2

Page # 1 of 1

Report To Lynn Green

Company Evren Northwest

Address P.O. Box 14488

City, State, ZIP Portland OR 97293

Phone (503)452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*) Jordan Morris

PROJECT NAME 732-2300-02

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☑ Standard turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
B01-5	01	04-22-24	9:24	Soil	1				X								
B01-14-SWI	02 A-E	04-22-24	9:33	Soil	5				X								
B02-5	03 A-E	04-22-24	10:07	Soil	5				X								
B02-17.5-SWI	04 A-E	04-22-24	10:24	Soil	5				X								
B03-5	05 A-E	04-22-24	10:58	Soil	1				X								
B03-17-SWI	06 A-E	04-22-24	11:12	Soil	5				X								
B04-5	07 A-E	04-22-24	11:39	Soil	1				X								
B04-15-SWI	08 A-E	04-22-24	12:00	Soil	5				X								

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jordan Morris	Jordan Morris	Evren Northwest	04.22.24	18:00
Received by:	Eric Young	F.B	4/23/24	1045
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

404348

SAMPLE CHAIN OF CUSTODY

04/23/24

N2|B2

Page # 1 of 1

Report To Lynn Green

Company Evren Northwest

Address P.O. Box 14488

City, State, ZIP Portland OR 97293

Phone (503)452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*) Jordan Morris

PROJECT NAME 732-2300-02

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☑ Standard turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
B01-5	01	04-22-24	9:24	Soil	1				X								
B01-14-SWI	02 A-E	04-22-24	9:33	Soil	5				X								
B02-5	03 A-E	04-22-24	10:07	Soil	5				X								
B02-17.5-SWI	04 A-E	04-22-24	10:24	Soil	5				X								
B03-5	05 A-E	04-22-24	10:58	Soil	1				X								
B03-17-SWI	06 A-E	04-22-24	11:12	Soil	5				X								
B04-5	07 A-E	04-22-24	11:39	Soil	1				X								
B04-15-SWI	08 A-E	04-22-24	12:00	Soil	5				X								

ANALYSES REQUESTED

Samples received at 4 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Jordan Morris	Jordan Morris	Evren Northwest	04.22.24	18:00
Received by:	Eric Young	F.B	4/23/24	1045
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: Queen Ave Apartments - 2080 Queen Ave SE, Albany Project Number: 732-23002-02

Date of Review: 4/30/2024 Lab. Name: F&BI Lab Batch ID #: 404348

Chain of Custody

1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	

Timing

5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Quality Assurance/Quality Control

7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reason besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	

If yes, indicate blank type, chemical(s) and concentration(s): _____

13.) For inorganics and metals, is there one method blank for each analyte?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	

Accuracy

16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☒yes	☐no	☐NA
Do all surrogate spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☐yes	☐no	☒NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☐yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA

Precision

19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
20.) Are all matrix spike/matrix spike duplicate RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
21.) Do all RPD calculations for Field Duplicates meet accepted criteria?	☐yes	☐no	☒NA

Comments:

Initial Review By: LMP **Final** Review By: EB

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

May 1, 2024

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on April 23, 2024 from the 732-23002-02, F&BI 404347 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Neil Woller, Paul Trone, Evan Bruggeman
ENW0501R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 23, 2024 by Friedman & Bruya, Inc. from the Evren Northwest 732-23002-02, F&BI 404347 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
404347 -01	B01-240422-GW
404347 -02	B02-240422-GW
404347 -03	B03-240422-GW
404347 -04	B04-240422-GW

The 8260D acetone and 2-butanone calibration standard exceeded the acceptance criteria. The compound was not detected, therefore this did not represent an out of control condition, and the result is not considered an estimate.

All quality control requirements were acceptable.

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347
Date Extracted: 04/24/24
Date Analyzed: 04/24/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
B01-240422-GW 404347-01	<100	89
B02-240422-GW 404347-02	<100	90
B03-240422-GW 404347-03	<100	89
B04-240422-GW 404347-04	<100	91
Method Blank 04-860 MB	<100	88

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347
Date Extracted: 04/23/24
Date Analyzed: 04/26/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
B02-240422-GW 404347-02	<50	<250	110
B03-240422-GW 404347-03	<50	<250	132
B04-240422-GW 404347-04	<50	<250	114
Method Blank 04-965 MB2	<50	<250	106

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347
Date Extracted: 04/23/24
Date Analyzed: 04/23/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND RESIDUAL RANGE USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Residual Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
B01-240422-GW 404347-01	<50	<250	114
B02-240422-GW 404347-02	160 x	<250	113
B03-240422-GW 404347-03	63 x	<250	114
B04-240422-GW 404347-04	56 x	<250	117
Method Blank 04-965 MB2	<50	<250	105

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	B01-240422-GW	Client:	Evren Northwest
Date Received:	04/23/24	Project:	732-23002-02, F&BI 404347
Date Extracted:	04/26/24	Lab ID:	404347-01
Date Analyzed:	04/26/24	Data File:	042621.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	95	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	B02-240422-GW	Client:	Evren Northwest
Date Received:	04/23/24	Project:	732-23002-02, F&BI 404347
Date Extracted:	04/26/24	Lab ID:	404347-02
Date Analyzed:	04/26/24	Data File:	042622.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	95	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	B03-240422-GW	Client:	Evren Northwest
Date Received:	04/23/24	Project:	732-23002-02, F&BI 404347
Date Extracted:	04/26/24	Lab ID:	404347-03
Date Analyzed:	04/26/24	Data File:	042627.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	116	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	97	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	B04-240422-GW	Client:	Evren Northwest
Date Received:	04/23/24	Project:	732-23002-02, F&BI 404347
Date Extracted:	04/26/24	Lab ID:	404347-04
Date Analyzed:	04/26/24	Data File:	042628.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	732-23002-02, F&BI 404347
Date Extracted:	04/26/24	Lab ID:	04-0976 mb
Date Analyzed:	04/26/24	Data File:	042609.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	97	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 404347-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	110	70-130

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	88	65-151	10

Date of Report: 05/01/24
Date Received: 04/23/24
Project: 732-23002-02, F&BI 404347

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	84	96	65-151	13

Date of Report: 05/01/24
Date Received: 04/23/24
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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 404347-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	117	30-221
Chloromethane	ug/L (ppb)	10	<10	99	50-150
Vinyl chloride	ug/L (ppb)	10	<0.02	114	50-150
Bromomethane	ug/L (ppb)	10	<5	105	50-150
Chloroethane	ug/L (ppb)	10	<1	105	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	101	50-150
Acetone	ug/L (ppb)	50	<50	93	18-161
1,1-Dichloroethene	ug/L (ppb)	10	<1	99	50-150
Hexane	ug/L (ppb)	10	<5	90	50-150
Methylene chloride	ug/L (ppb)	10	<5	90	50-150
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	105	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	98	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	102	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	90	43-171
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	10-211
Chloroform	ug/L (ppb)	10	<1	96	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	93	10-192
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	103	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	105	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	97	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	124	50-150
Benzene	ug/L (ppb)	10	<0.35	102	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	105	35-149
1,2-Dichloropropane	ug/L (ppb)	10	<1	100	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	103	50-150
Dibromomethane	ug/L (ppb)	10	<1	104	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	103	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	97	50-150
Toluene	ug/L (ppb)	10	<1	102	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	99	50-150
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	102	50-150
2-Hexanone	ug/L (ppb)	50	<10	105	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	99	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	106	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	103	50-150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<0.01	106	50-150
Chlorobenzene	ug/L (ppb)	10	<1	102	50-150
Ethylbenzene	ug/L (ppb)	10	<1	105	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	105	50-150
m,p-Xylene	ug/L (ppb)	20	<2	104	50-150
o-Xylene	ug/L (ppb)	10	<1	103	50-150
Styrene	ug/L (ppb)	10	<1	74	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	101	50-150
Bromoform	ug/L (ppb)	10	<5	108	50-150
n-Propylbenzene	ug/L (ppb)	10	<1	102	50-150
Bromobenzene	ug/L (ppb)	10	<1	104	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	105	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	105	50-150
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	104	50-150
2-Chlorotoluene	ug/L (ppb)	10	<1	105	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	99	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	102	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	100	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	102	50-150
p-Isopropyltoluene	ug/L (ppb)	10	<1	100	50-150
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	102	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	98	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	102	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	101	50-150
Naphthalene	ug/L (ppb)	10	<1	96	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	105	50-150

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QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	114	121	46-206	6
Chloromethane	ug/L (ppb)	10	93	99	59-132	6
Vinyl chloride	ug/L (ppb)	10	108	112	64-142	4
Bromomethane	ug/L (ppb)	10	101	107	50-197	6
Chloroethane	ug/L (ppb)	10	98	101	70-130	3
Trichlorofluoromethane	ug/L (ppb)	10	95	98	51-159	3
Acetone	ug/L (ppb)	50	93	87	10-140	7
1,1-Dichloroethene	ug/L (ppb)	10	93	97	64-140	4
Hexane	ug/L (ppb)	10	96	103	54-136	7
Methylene chloride	ug/L (ppb)	10	87	95	43-134	9
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	98	103	70-130	5
trans-1,2-Dichloroethene	ug/L (ppb)	10	94	101	70-130	7
1,1-Dichloroethane	ug/L (ppb)	10	95	99	70-130	4
2,2-Dichloropropane	ug/L (ppb)	10	109	105	64-148	4
cis-1,2-Dichloroethene	ug/L (ppb)	10	94	98	70-130	4
Chloroform	ug/L (ppb)	10	91	94	70-130	3
2-Butanone (MEK)	ug/L (ppb)	50	90	96	47-112	6
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	96	101	70-130	5
1,1,1-Trichloroethane	ug/L (ppb)	10	98	103	70-130	5
1,1-Dichloropropene	ug/L (ppb)	10	96	101	70-130	5
Carbon tetrachloride	ug/L (ppb)	10	116	119	70-130	3
Benzene	ug/L (ppb)	10	96	101	70-130	5
Trichloroethene	ug/L (ppb)	10	98	103	70-130	5
1,2-Dichloropropane	ug/L (ppb)	10	92	98	70-130	6
Bromodichloromethane	ug/L (ppb)	10	98	103	70-130	5
Dibromomethane	ug/L (ppb)	10	100	103	70-130	3
4-Methyl-2-pentanone	ug/L (ppb)	50	100	104	68-130	4
cis-1,3-Dichloropropene	ug/L (ppb)	10	94	100	69-131	6
Toluene	ug/L (ppb)	10	97	101	70-130	4
trans-1,3-Dichloropropene	ug/L (ppb)	10	97	100	70-130	3
1,1,2-Trichloroethane	ug/L (ppb)	10	96	101	70-130	5
2-Hexanone	ug/L (ppb)	50	101	105	45-138	4
1,3-Dichloropropane	ug/L (ppb)	10	96	101	70-130	5
Tetrachloroethene	ug/L (ppb)	10	103	108	70-130	5
Dibromochloromethane	ug/L (ppb)	10	98	102	60-148	4
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	99	104	70-130	5
Chlorobenzene	ug/L (ppb)	10	96	100	70-130	4
Ethylbenzene	ug/L (ppb)	10	100	104	70-130	4
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	99	102	70-130	3
m,p-Xylene	ug/L (ppb)	20	99	103	70-130	4
o-Xylene	ug/L (ppb)	10	98	103	70-130	5
Styrene	ug/L (ppb)	10	99	103	70-130	4
Isopropylbenzene	ug/L (ppb)	10	96	100	70-130	4
Bromoform	ug/L (ppb)	10	101	106	69-138	5
n-Propylbenzene	ug/L (ppb)	10	99	103	70-130	4
Bromobenzene	ug/L (ppb)	10	100	102	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	99	102	70-130	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	100	102	70-130	2
1,2,3-Trichloropropane	ug/L (ppb)	10	99	103	70-130	4
2-Chlorotoluene	ug/L (ppb)	10	99	103	70-130	4
4-Chlorotoluene	ug/L (ppb)	10	97	101	70-130	4
tert-Butylbenzene	ug/L (ppb)	10	98	100	70-130	2
1,2,4-Trimethylbenzene	ug/L (ppb)	10	98	100	70-130	2
sec-Butylbenzene	ug/L (ppb)	10	100	102	70-130	2
p-Isopropyltoluene	ug/L (ppb)	10	98	103	70-130	5
1,3-Dichlorobenzene	ug/L (ppb)	10	101	103	70-130	2
1,4-Dichlorobenzene	ug/L (ppb)	10	97	101	70-130	4
1,2-Dichlorobenzene	ug/L (ppb)	10	98	99	70-130	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	89	98	70-130	10
1,2,4-Trichlorobenzene	ug/L (ppb)	10	99	101	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	107	108	70-130	1
Naphthalene	ug/L (ppb)	10	91	94	70-130	3
1,2,3-Trichlorobenzene	ug/L (ppb)	10	98	103	70-130	5

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

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

404347

SAMPLE CHAIN OF CUSTODY

04/23/24 C3/J3/VW1

Page # 1 of 1

Report To LYNN GREEN

Company Evren Northwest

Address 40 SE 24 Ave

City, State, ZIP Portland, OR 97214

Phone 503-452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*) Nick Popovich

PROJECT NAME 732-23002-02

PO #

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☒ Standard turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dx with silica gel				Notes
B01-240422-GW	01 A-H	4/22/24	10:40	GW	8	X	X			X							A-per EB
B02-240422-GW	02 A-H	4/22/24	10:35	GW	8	X	X			X			A				-04/25/24 ME
B03-240422-GW	03 A-H	4/22/24	12:42	GW	8	X	X			X			A				
B04-240422-GW	04 A-H	4/22/24	13:20	GW	8	X	X			X			A				
													Samples received at 1 °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Nick Popovich	NICK POPOVICH	ENW	4/22	18:00
Received by:	ERIC SOUR	F-B	4/23/24	1045
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Summary: DATA VALID? ☒YES

Analytical Laboratory Data Validation Check Sheet

Project Name: Queen Ave Apartments - 2080 Queen Ave SE, Albany Project Number: 732-23002-02

Date of Review: 5/1/2024 Lab. Name: F&BI Lab Batch ID #: 404347

Chain of Custody			
1.) Are all requested analyses reported?	☒yes	☐no	
2.) Were the requested methods used?	☒yes	☐no	
3.) Trip blank submitted?	☐yes	☒no	
4.) Field blank submitted?	☐yes	☒no	
Timing			
5.) Samples extracted within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
6.) Analysis performed within holding times?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
Quality Assurance/Quality Control			
7.) Are the required reporting limits reported? (MRLs vs MDLs/PQLs)	☒yes	☐no	
8.) Are all reported values above either MRL or MDL?	☒yes	☐no	
9.) Are all values between the MDL & PQL tagged as trace?	☐yes	☐no	☒NA
10a.) Are reporting limits raised for other reason besides high analyte conc.?	☐yes	☒no	
10b.) If so, are they footnoted?	☐yes	☐no	☒NA
11.) Lab method blank completed?	☒yes	☐no	
12.) Lab, Field, or Trip Blank(s) report detections?	☐yes	☒no	
13.) For inorganics and metals, is there one method blank for each analyte?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	
14.) For VOCs, is there one method blank for each day of analysis?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	
15.) For SVOC's, is there one method blank for each extraction batch?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	
Accuracy			
16.) Is there a surrogate spike recovery for all VOC & SVOC samples?	☒yes	☐no	☐NA
Do all surrogate spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
17.) Is there a spike recovery for all Laboratory Control Samples?	☒yes	☐no	☐NA
Do all LCS/LCSD spike recoveries meet accepted criteria?	☒yes	☐no	
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
18.) Are all LCS/LCSD RPDs within acceptable limits?	☒yes	☐no	☐NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
Precision			
19.) Are all matrix spike/matrix spike duplicate recoveries within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
20.) Are all matrix spike/matrix spike duplicate RPDs within acceptable limits?	☐yes	☐no	☒NA
If not, are all discrepancies footnoted?	☐yes	☐no	☒NA
21.) Do all RPD calculations for Field Duplicates meet accepted criteria?	☐yes	☐no	☒NA

If yes, indicate blank type, chemical(s) and concentration(s): _____

Comments:
The 8260D acetone and 2-butanone calibration standard exceeded the acceptance criteria. The compound was not detected; Therefore, this did not represent an out-of-control condition, and the result is not considered an estimate. (k)

Gasoline was not detected in one or more of the NWTPH-Gx duplicate analyses; Therefore, calculation of the RPD is not applicable. (nm)

The NWTPH-Dx diesel was marked with an “x” qualifier on for samples B02, B03, and B04. The data was reanalyzed through a silica gel column and has been reported.

Initial Review By: LMP **Final** Review By: EB